Exploring The Experience of Romantic Relationships and Sexuality Education in Neurodivergent and Neurotypical Young People: Perspectives from Young People, Educational Professionals, and Caregivers



# University of **Salford** MANCHESTER

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Thesis submitted in accordance with the requirements

for the degree of Doctor in Philosophy

The University of Salford

School of Health and Society (Applied Psychology)

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#### Acknowledgments

I would like to express my profound gratitude to my supervisors for their invaluable support throughout this PhD journey.

Professor Clare Allely, thank you for your interest in my research proposal and consequently for allowing me to conduct this project under your supervision. Thank you very much for always being available to share your knowledge and expertise with me. Your passion for academic work, as well as, at a personal level, your amazing qualities of being open and flexible, and easily approachable made this journey, despite being hard work, pleasurable for me.

Dr Amy Bidgood, thank you very much for all your incredible support and for having an "Eagle eye" that was able to spot even the tiniest inconsistencies or errors in my writing. You have taught me to pay attention to every detail. Your continued support during all the months as my co-supervisor was of great value and helped me grow as an academic.

Professor Chris Birkbeck, although you joined our team toward the end of my PhD journey, you brought many invaluable insights into the project. Your expertise and wisdom provided directions to shape the final stages of my thesis. The remarkable calmness that always emanated from you helped me feel relaxed during the most apprehensive stages of my PhD.

My supervisory team, you all have been amazing role models of how to support others. Thank you very much!

I would also like to express my gratitude to my family for their constant mental support throughout writing this thesis and, my parents for bringing me up to be a selfconfident, resilient, and very well-organised person; without these qualities, my PhD journey might have been much more difficult. Additionally, I would like to thank my partner, Robert, for helping me to stay healthy and making sure I was having breaks from my constant work. Thank you also for being this patient, listening ear whenever I needed to talk out (which was often) during this very busy period in my life.

#### Abstract

The literature indicates that sexuality education provided in schools/colleges in the United Kingdom (UK) may not be appropriate for people with Autism Spectrum Disorder (ASD). There appears to be a lack of understanding of the subject regarding young people with Attention-Deficit/Hyperactivity Disorder (ADHD) and a dual diagnosis (ASD co-occurring with ADHD). Research also suggests that compared to neurotypical (NT) peers, young people with ASD tend to receive less support on sexuality from their parents, who often feel that they lack the appropriate skills to help their children with some sex-related issues. Some young people with ASD and ADHD lack an understanding of the social nuances of dating and intimacy, which is crucial for navigating romantic relationships. This project aimed to address five research questions: 1) What are participants' (young people, educational professionals, and caregivers) perspectives of young people's (neurodivergent [ND] [with ASD, ADHD, and ASD co-occurring with ADHD] and NT) experiences of school-based sexuality education?; 2) What are participants' (young people, educational professionals, and caregivers) suggestions for improving sexuality education to make it more beneficial for young people (ND and NT)?; 3) What are caregivers' and educators' suggestions about receiving support to feel more equipped at teaching sexuality education to young people (ND and NT)?; 4) What are young people's and caregivers' experiences of parent-child (ND and NT) sexuality-related discussions?; 5) What are participants' (young people, educational professionals, and caregivers) perspectives of young people's (ND and NT) romantic relationship experiences?

Study 1, based on a systematic literature review, investigated sexuality education and romantic relationships in ND young people from the perspectives of young people, educational professionals, and caregivers, and it demonstrated that many ND young people, despite their desire for romantic relationships, encountered greater challenges to navigate them than their NT peers. They also showed lower levels of understanding of sexuality than their NT peers. A pilot study examined sexuality education and romantic relationships in young people (ND and NT) from the perspectives of young people,

educational professionals, and caregivers, based on a questionnaire (including openended questions) approach to the topic and it aimed to help develop the subsequent empirical studies (2 and 3). Study 2 examined sexuality education and romantic relationships in young people (ND and NT) from the perspectives of young people, educational professionals, and caregivers, based on a short-form version questionnaire developed from the pilot study. Study 2 demonstrated that young people (ND and NT) experienced problems navigating romantic relationships; however, the sexuality education they received in schools/colleges, and from their caregivers was inadequate to provide them with appropriate knowledge about this matter. This study also reported non-significant differences amongst the groups of young people in terms of their sexuality education and romantic relationship experiences. Study 3 explored sexuality education and romantic relationships in young people (ND and NT) from the perspectives of young people, educational professionals, and caregivers, based on a semi-structured interview approach to the topic. Findings again revealed that many young people (ND and NT) received basic sexuality education and encountered challenges navigating romantic relationships. Educators and caregivers highlighted the necessity of receiving adequate sexuality education training to enhance their self-efficacy in teaching this subject to their students/children.

Some of the key clinical implications and recommendations from the studies' findings highlighted that sexuality education in schools/colleges is inadequate and somewhat irrelevant for young people as it focuses mostly on the biological side of sexuality and excludes other vital topics (e.g., LGBTQ+ sexuality). Ensuring the missing subjects are included in teaching was recommended by all groups of participants. Educators reported a lack of adequate sexuality education training and thus called for support in this matter. Caregivers were found to have very limited sexuality-related communication with their children due to inadequate skills to appropriately conduct such discussions. Consequently, they called for support in this matter. This project also demonstrated a lack of parent-school collaboration related to sexuality education; however, such collaboration was deemed essential. Involving professionals (e.g., mental health nurses) in helping to shape sexuality education for young people was also recommended as beneficial.

#### **Chapter I: Introduction**

#### I.0 Introduction to the Thesis

Romantic relationships constitute an essential part of young people's development (Boisvert et al., 2023) and sexuality education provided by both educational institutions and homes plays a crucial role in helping young people to understand their own sexuality and attitudes toward romantic relationships. While there has been substantial research into sexuality education and romantic relationships in neurotypical (NT) young people, there appears to be a lack of in-depth understanding of the topic in neurodivergent (ND) young people. This PhD project aims to offer a greater understanding of the topic in the ND young population. The thesis comprises seven chapters. Chapter I provides the introduction and begins by offering definitions and information regarding the neurodevelopmental conditions that will be the focus of this project: Autism Spectrum Disorder (ASD), Attention-Deficit/Hyperactivity Disorder (ADHD), and ASD co-occurring with ADHD, including the diagnostic criteria, epidemiology, and developmental course of the conditions. The types of neurodivergent young people that are the focus of this project are also introduced. Within this chapter, the researcher additionally offers her position regarding the neurodivergent paradigm, as well as introducing her personal reflexivity in relation to this project. Chapter II describes sexuality education. It begins with an overview of young people's sexual development, followed by the information related to the prevailing debates surrounding sexuality education through the lens of history, as well as background information regarding current sexuality education for young people including the ND individuals. Next in this chapter, an overview of romantic relationships in young people (NT and ND) is introduced. Finally, the importance of adults in shaping young people's attitudes toward romantic relationships is also provided.

Chapter III presents Study 1, which is a systematic literature review on romantic relationship experiences and sexuality education in ND young people (with ASD, ADHD, and ASD co-occurring with ADHD). It provides perspectives on the topic from young

people, educational professionals, and caregivers. In this chapter, a critical appraisal of the literature, as well as the significance of this project are outlined. Additionally, research objectives and questions specific to the empirical studies conducted in this project are provided. Chapter IV introduces the importance and unique contributions of this project, followed by the researcher's ontological and epistemological position. This chapter also focuses on discussing the rationale for the methodological approaches adopted and it also details the methodology utilised in the empirical studies including participant sample, recruitment, materials, procedure, and ethics. Additionally, a pilot study and its contribution to the development of Study 2 (surveys) and Study 3 (interviews) of this project are also discussed. The following Chapter (V) is devoted to the presentation of the findings obtained from Study 2 and Study 3. This chapter concludes with the researcher's reflexivity regarding conducting Study 3's analysis. Chapter VI offers a detailed discussion based on the findings presented in Chapter V. It thus addresses the research questions of this project. Specifically, it provides a discussion regarding participants' perspectives of young people's (ND and NT) experiences of school-based sexuality education and suggestions for improving it. It additionally focuses on discussing caregivers' and educators' suggestions about receiving support to feel more equipped at discussing sexuality and romantic relationships with their children/students, followed by a discussion about young people's and caregivers' experiences of parent-child sexualityrelated communication. Lastly, it also discusses participants' perspectives of young people's romantic relationship experiences. The final chapter (VII) provides a conclusion of the empirical studies, as well as highlighting the unique contribution of this project. This chapter also discusses some limitations of the empirical studies, and identifies potential future research directions, as well as outlining a number of key clinical/practical recommendations and implications based on all of the findings from the studies presented in this thesis. Finally, this chapter finishes with the researcher's reflective account.

#### I.1. Chapter Overview

The present chapter provides an overview regarding neurodevelopmental conditions that will be discussed in this thesis including their clinical explanation, diagnostic criteria, epidemiology and a developmental course of the conditions (ASD and ADHD). The co-occurrence of these two conditions will also be discussed. This information is essential to set out the background highlighting how many people are neurodivergent and how this influences their social interactions and hence ability to create and maintain romantic relationships. This consequently highlights the importance of adequate sexuality education for the neurodivergent young population. In this chapter, I will additionally present my position adopted in relation to the neurodivergent theoretical framework as well as introducing the ND young people who will be included in the studies of this project. Finally, I will also present my personal reflexivity regarding undertaking this PhD project.

### I.2. Neurodevelopmental Disorders

Autism Spectrum Disorder (ASD) and Attention-Deficit/Hyperactivity Disorder (ADHD) are two disorders that are classified under Neurodevelopmental Disorders (NDDs) in the Diagnostic and Statistical Manual of Mental Disorders, which is the handbook utilised by clinicians and psychiatrists to diagnose psychiatric illnesses (DSM-5, American Psychiatric Association, [APA], 2013). (There is also a text revised version of the DSM-5-TR [APA, 2023]. The Classification of Diseases [ICD-11], is another diagnostic manual, which is regarded a global standard for diagnostic health information [World Health Organisation {WHO}, 2023]). Other NDDs include Intellectual Disability (ID); Communication Disorder; Neurodevelopmental Motor Disorders including Tic Disorders and Specific Learning Disorders. NDDs are conditions which have an onset in the developmental period and show heterogeneity in terms of aetiology, clinical phenotype and severity in functional impairment (Gidziela et al., 2023; Moeschler & Shevell, 2014; Rutter et al., 2006). NDDs produce impairments at many levels of the individual's functioning including personal, social, academic and occupational. The range of developmental impairments of NDDs differs from very specific restrictions of learning or control of executive functions to comprehensive impairments in social skills or

intelligence (Billstedt et al., 2017). The conditions tend to overlap in terms of their symptomology, have a strong genetic influence, and possible environmental impacts, and are prominent in males (Rutter et al., 2006). The co-occurrence of NDDs (ASD with ADHD) is associated with a greater likelihood of co-occurring psychiatric disorders such as behavioural disorder, anxiety disorder, mood disorder and developmental disorder (Zablotsky et al., 2020). NDDs persist into adulthood (Enner et al., 2020; Lord et al., 2020). ASD and ADHD (as well as ASD co-occurring with ADHD) are the two NDDs that will be the focus of this PhD thesis; the rationale for this choice will be provided in the section 3 (I.3).

### I.2.1. The Neurodivergent Theoretical Framework

This thesis is underpinned by the neurodivergent theoretical framework. This framework may be explained by the form of life theory that posits that autism should be recognised as a different way of experiencing the world as opposed to a neurological deficit (Milton 2012). Milton (2021) claims that autistic individuals often find it challenging to navigate the NT world, however, at the same time, NT individuals also lack insights and perceptions relating to the ND culture, a phenomenon known as the 'double empathy problem'. ND people's cognitive profiles vary from the recognised cognitive normality, which as Legault et al. (2021, p.12843) argue, is not an *'objective statistical* fact of a human functioning', but a view created and preserved by the socio-political frameworks. Neurodiversity can be understood as a naturally occurring neurological variation in humans (Mottron, 2011). The name 'Neurodiversity' or 'The Neurodiversity Paradigm' (Walker, 2012) has been given to a growing socio-political movement that advocates the acknowledgement of inclusivity in terms of neurocognitive diversity in society including various areas such as health and education (Legault et al., 2021). This model opposes the medical model, which recognises neurodiversity as a deficiency (Kapp, 2019); this approach, however, has received criticism for making some ND people feel dehumanised, pathologised, and degraded to their neurodivergent characteristics portraying them as a burden to society (Haque & Waytz 2012). Lechêne (2024), argues that the medical model of autism is socially constructed, and it creates the stigma,

discrimination and misconceptions about autism. He further highlights that the DSM diagnostic criteria rely heavily on deviation from social norms, which implies that social norms are universally shared across all cultures. However, for example, 'abnormalities in eye contact', which is one of the features of autism as described in DSM (this aspect will be discussed in more detail in section 1.2.3.), may be perceived differently depending on the culture; in many Asian, African and Latin American cultures eye contact tends to be understood as an insult (Lechêne, 2024).

Nonetheless, the neurodivergent movement is also a topic of controversy (Hughes, 2021). The movement has been accused of being under-representative of more impaired people on the autism spectrum; such critiques came from some clinicians, autistic people and their parents (Hughes, 2021; Russell, 2020). It has been argued that the model of neurodiversity, which rejects disabilities and portrays neurodiversity as social differences, may deprive some neurodivergent individuals of essential support and resources that they may require (Hughes, 2021). Furthermore, some academics in social sciences, history, and philosophy of biology have critiqued some of the arguments made by the movement as being *'reductionist, promoting a genetic/brain-based understanding of autism'* subsequently reducing *'the attribution of personal responsibility for behaviour to the brain'* (Russell, 2020, p. 288).

The debate regarding the neurodiversity movement has also been evident in the discussions related to the autism language used by researchers in the field. Given that language has a substantial influence on modelling how people view autism, researchers should be encouraged to explain their choice of language in autism research to ensure that they have considered the perspectives offered by autistic individuals, as well the implications of their choices on the autistic community (Bottema-Beutel, 2021). Notably, the public and researchers differ with regard to the preferred terminology used to describe ASD, and using inappropriate terminology can be perceived as offensive or stigmatising by some people (Bottema-Beutel, 2021; Gross et al., 2022). There are two styles of terminology that are commonly used: *person-first* (person with autism) or *identity-first* (autistic person) (Gross et al., 2022). *Person-first* tends to be a preferred form of terminology by people who want to accentuate themselves as a person over their condition (Gross et al., 2022). Person-first language choice appears to conceptualise

autism as a neurodevelopmental disorder as identified in DSM-5 (APA, 2013) (Shakes & Cashin, 2020). In the *identity-first* language, the common identifier is used as an adjective (autistic person) and it is perceived as an essential part of one's identity (Gross et al., 2022). This form, however, appears to conceptualise autism away from the disorder toward the notion of a neurological difference (Shakes & Cashin, 2020). Research conducted in Australia (Bury et al., 2023) showed that, although the largest percentage of people preferred the identity-first language (autistic person), this terminology was also found as the least preferred one. However, a person on the autism spectrum was, overall, the most preferred term ranked by participants in this study. In the UK, Kenny and colleagues (2016) found that there is not one universal way that would be preferable to describe autism. Different groups of communities have different preferences in terms of describing autism. The terminology autism and on the autism spectrum, and to a lesser degree, autism spectrum disorder (ASD), were found as preferable across all groups in the study. Professionals preferred the use of *person-first* language (person with autism), whereas autistic people and parents of autistic children (to a lesser degree) preferred the identity-first language (autistic person). Based on this, to respect the preference of autistic individuals in the UK, as well as acknowledging my position related to the neurodiversity paradigm as discussed earlier, the term *autistic person* will be used where appropriate throughout this project.

#### *1.2.2. Neurodivergent Young People Included in the Studies in this Project*

Aligning with the social model (Oliver 2013) and the neurodivergent paradigm (discussed in the preceding section), this project seeks to give power back to the neurodivergent community and hence it will include three groups of neurodivergent young people offering them space to voice their perceptions on the topic related to sexuality education and romantic relationships. The ND young people invited to participate in this project were young people without intellectual impairments. In terms of autistic young people, previously, these young people might have received a diagnosis of Asperger's Syndrome (which was characterised by average or higher intelligence and no language delay); however, this diagnosis is now included under the umbrella of ASD

(APA, 2013) (further details regarding ASD will be provided in section I.2.3.). Autistic individuals without intellectual impairments are also referred to as having 'highfunctioning autism' (Hughes, 2021). However, proponents of the neurodivergent model strongly oppose the distinction of 'high functioning autism' since many autistic individuals who are 'highly functioning' show difficulties in social communication and interactions (Alvares et al., 2020); therefore, this term minimises the challenges encountered by and support needs for them (Hughes, 2021). Furthermore, the DSM-5 (APA, 2012; Weitlauf et al., 2014) provides three severity classifications of autism: Level 1 ('Requiring support'), Level 2 ('Requiring substantial support'), and Level 3 ('Requiring very substantial support'). Based on this classification, autistic young people included in this research were Level 1.

Additionally, only ND young people with a diagnosis of the condition(s) (ASD or ADHD, or ASD co-occurring with ADHD) (or caregivers of ND children who have the diagnosis; or educators of students who have the diagnosis) were invited to participate in the studies. Participants however were not asked to provide proof of their diagnoses since it was clear in the advertisements of the studies that that was a requirement. Since the participants were between 18-25 years old (hence adults) (in the autistic group, they were Level 1 [hence without having a learning disability]), it was assumed that they had an adequate understanding of what a formal diagnosis of a condition entails.

Importantly, this project also includes a control group (NT young people); the reason behind it is to help determine whether the experiences of ND young people in terms of their sexuality education and romantic relationships are typical of them or, generally, of all young people. Without the inclusion of the control group, this evaluation would not be possible (the detailed discussion related to participant groups of this project is provided in Chapter IV).

This section introduced information related to ND young people who will be the participants in the empirical studies of this project. The subsequent sections (I.2.3, I.2.4, and I.2.5.) will provide information related to the three neurodevelopmental conditions that are the focus of this project.

## I.2.3. Autism Spectrum Disorder (ASD)

## I.2.3.1. Diagnostic Criteria for ASD

The DSM-5 (APA, 2013) categorises Autistic Disorder, Asperger's Disorder, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder Not Otherwise Specified under the umbrella term of ASD. According to the criteria in the DSM-5 (APA, 2013, [299.00 {F84.0}], p.1-2), to meet the diagnostic criteria for ASD an individual must exhibit all (DSM-5-TR, APA, 2023) of the following: persistent impairments in each of the three areas of social communication and interaction: 1) *social-emotional reciprocity*; 2) *using and understanding non-verbal communication*; and 3) *developing and maintaining friendships* plus a minimum of two of the four types of persistent, restrictive, and repetitive patterns of behaviours and interests (RRBIs): 1) *stereotyped or repetitive motor movements*; 2) *persistence in sameness, inflexible adherence to routines, or ritualised patterns of verbal or nonverbal behaviour*; 3) *highly constrained, fixated interests that are abnormal in intensity or focus*; and 4) *hyper-or hypo-reactivity to sensory input.* 

Within *social-emotional reciprocity*, this includes abnormal behaviours (e.g., inappropriate touching of other people), conducting conversations (e.g., autistic individuals may display difficulties with pragmatic features of communication, conversations may frequently be one-sided, as opposed to engaging in reciprocal dialog with others [this especially may be noticeable in children and less in adults {APA, 2013}), and being able to share others' interests or emotions (e.g., lack of appreciation that other people may have different interests to theirs). In terms of *using and understanding non-verbal communication*, this includes lack of social use of eye contact, atypical body postures and gestures (e.g., staring at others, facing away from a listener), using atypical volume and voice intonation, showing difficulties in facial expressions of their feelings, as well as understanding other people's facial expressions. Notably, these behavioural characteristics are regarded as atypical in western cultures, where social standards and expectations demand, for example, the use of eye contact when interacting with others (Freeth et al., 2013). In some Eastern cultures (e.g., Chinese), the use of direct eye

contact would be regarded as impolite (Freeth et al., 2013). *Developing and maintaining* friendships (appropriate to developmental level), in children, may be observable during play, an autistic child may find it challenging to engage in role play and imaginative play, as opposed to a play framed by a rigid set of rules. In adulthood, this may manifest in difficulties in forming romantic relationships (e.g., some autistic people may find it difficult to recognise what behaviours are appropriate and what are not when trying to build an intimate relationship [e.g., Cheak-Zamora et al., 2019]). Examples of RRBIs include flipping objects, using idiosyncratic phrases, rigid thinking and resistance to change, strong attachment to or preoccupation with unusual objects and preoccupation with texture or touch (including attraction/aversion to texture). *Hyper-or hypo-reactivity* to sensory input; differences in sensory input may be heterogeneous between and within people, as well as across sensory domains and they may include all senses (e.g., smell, taste, sight, hearing, proprioception, kinaesthesia, and vestibular) (National Autistic Society [NAS], 2023; Shah et al., 2016). For example, an autistic person may have an aversion or attraction to specific, loud, or unpredictable sounds, and this may cause an emotional reaction to these sounds (Bang & Igelström, 2023). All those impairments can have a significant impact on the social aspects of everyday interactions with other people for individuals with autism (Lord et al., 2020).

#### I.2.3.2. Epidemiology

Globally, the ASD prevalence is estimated at 1.5% in the population in developed countries (Baxter et al., 2015; Christensen et al., 2018), 0.96% (37 countries, out of which 26 were high-income countries) (Fombonne et al., 2021), a median prevalence of 100/10,000 (34 countries; most data came from the US and Northern Europe) (Zeidan et al., 2022), and 0.6% (74 studies, 26 were reviewed in Asia, four in Africa, 25 in Europe, 16 in the US and three in Australia) (Salari et al., 2022). According to the up-to-date research, there is only one rigorous study conducted in 2007 in England (Brugha et al., 2011) on ASD prevalence in the adult population; the results revealed an estimate of 1%. In the United Kingdom (UK), statistics present that 1% (120,000) of children and young people is diagnosed with ASD (National Institute for Health and Care Excellence [NICE],

2013). The World Health Organisation (WHO) estimated that 0.76% of the children in the world had a diagnosis of ASD in 2010 (Baxter et al., 2015). That estimation, however, was established by research conducted by countries which represented only 16% of the world child populace (Erskine et al., 2017).

Furthermore, the sex ratio estimates shows that four males for one female receive a diagnosis of ASD in the general population (Fombonne, 2009; Loomes et al., 2017) and the more up-to-date data shows four males to two females (Zeidan et al., 2022). Autistic children with high cognitive abilities and efficient coping strategies may not display significant impairments until later in life (during adolescence or adulthood), thus there may be no need to seek a clinical diagnosis or support for them (Happé et al., 2016). There is a growing number of studies (e.g., Bargiela et al., 2016; Cook et al., 2018; Hull et al., 2017; Tierney et al., 2016), however, which indicate that females with autism may present with superficial skills, which help them to disguise their ASD impairments (which in the literature is referred as the 'camouflage' hypothesis) (Allely, 2019; Fombonne, 2020; Hull, et al., 2020; McQuaid et al., 2022). Consequently, this ability may influence the diagnosis of ASD in the female population (Allely, 2019; McQuaid et al., 2022). Autistic females without intellectual impairments may have been missed or received a late diagnosis; this may also be partially explained by their 'camouflaging' abilities (Bargiela et al., 2016; Hull et al., 2017; Wood-Downie et al., 2020). Further explanations of this may be related to the standardisation of diagnostic tools on male populations, as well as females' tendency to show more internalising than externalising symptoms, which may be misdiagnosed as anxiety or depression (Fusar-Poli et al., 2022). Studies demonstrate that autistic adults who initially sought the diagnosis had been often misdiagnosed with other psychiatric conditions including anxiety, mood disorders and personality disorders (Fusar-Poli et al., 2022) (the information related to ASD cooccurring conditions will be discussed in more detail in the 1.2.3.3. section).

Although ASD is a life-long condition, its features change throughout the individual's development (Shattuck et al., 2007) and they are gender-related with different symptomatological characterisations for males and females (Hull et al., 2020). The literature highlights that the non-social features appear to be less severe in adult females with autism than in males; for example, the females tend to exhibit less

restricted and eccentric interests than the males (Seltzer et al., 2004). Overall, females with autism tend to possess more enhanced social and communication skills than males (Attwood et al., 2006; Hiller et al., 2014). In general, this ability enables them to adapt to the social circumstances by imitating the behaviours and habits of others. Such abilities can result in greater difficulty in identifying and diagnosing ASD in females compared to males (Allely, 2019; Corbett et al., 2021; Hull et al., 2020; Tubío-Fungueiriño et al., 2021).

## I.2.3.3. Developmental Course of ASD

ASD symptoms begin to become more notable when a child is around three years old and they continue throughout their childhood, adolescence and adulthood; some ASD characteristics may emerge as early as between six and 18 months of age (e.g., a lack of orient to name, diminished eye contact, pointing, and motor abnormalities) and some others (e.g., repetitive behaviours) may occur later in life (Szatmari et al., 2016). Although ASD is highly heritable, the environmental factors are also contributory (Risch et al., 2014). The full range of aetiologies underlying ASD remains mostly unidentified (Gillberg et al., 2017; Lyall et al., 2017). Some potential considerations (specific genetic, metabolic, infectious, and environmental aspects) are being investigated (Gillberg et al., 2017). Additionally, Gillberg at al. (2017) indicate that there may be an association between steroid metabolism and findings of steroid abnormalities, which subsequently influences the development of at least some of the "autisms". Most individuals with ASD progress in different areas to some degree, nevertheless, they continue to display persistent impairments across multiple spheres throughout their lifespans (Shattuck et al., 2007). The pervasive impairments associated with ASD persist into adulthood (Happé et al., 2016; Shulman et al., 2020).

Conflicting findings have been reported in the literature regarding social skills in the adolescence and adulthood periods in ASD. According to the findings from studies by Hoekstra et al. (2007) and Whitehouse et al. (2010), the difficulties with social skills may reduce with children's development. This may subsequently lead to fewer peer conflicts in adolescence and especially adulthood. Both studies (Hoekstra et al., 2007; Whitehouse

et al., 2010) also reported an improvement in cognitive performance such as expressive and receptive language abilities in individuals with autism with ageing. Indeed, adolescence may be a period during which social and intellectual functioning may improve in some autistic individuals (Shulman et al., 2020). Moulton et al.'s (2017) study showed that, although many autistic children display cognitive improvement with age, many (82.6%) retain an ASD diagnosis between ages two and four. Interestingly, it has been argued that there is a subset of people who received an ASD diagnosis in childhood who, later in development, did not continue to meet the diagnostic criteria for ASD (Eigsti et al., 2023; Moulton et al., 2017). This indicates that their social skills increased to their age-typical level of development (Eigsti et al., 2023). Consequently, the terminology Loss of Autism Diagnosis (LAS) has been proposed to be used when referring to this group of individuals (Eigsti et al., 2023). Nonetheless, it is important to add that many (60-100%) children who lose their ASD diagnosis, are later diagnosed with a different developmental disorder including Developmental Delay or Developmental Language Disorder (Moulton et al., 2017). Conversely, other studies (e.g., Giarelli et al, 2013; Happé et al., 2016) have found that social impairments deteriorate during adolescence due to the increasing complexity of social interactions; autistic adolescents may become more aware of their social differences as they continue to struggle with peer-related interactions. Indeed, autistic adolescents socialise less frequently than their non-autistic counterparts. Typically, social communication differences restrict autistic adolescents' opportunities to engage and gain experience in social interactions (Afsharnejad, 2023). Additionally, Lord et al.'s (2020) study showed that a substantial number of autistic individuals do not have friends other than family members. These findings are consistent with other research (Libster et al., 2023; Sosnowy et al., 2019) showing that some autistic young people report having difficulties forming friendships, not having friends and being frequently lonely.

Notably, Hoekstra et al. (2007) recruited participants in the Netherlands, Whitehouse at al. (2010) in European countries (England and Ireland) and non-European countries (US and Canada), and those studies demonstrated increased social abilities in the autistic population with aging. However, further studies conducted in the US (Libster et al., 2023; Lord et al., 2020; Sosnowy et al., 2019) showed challenges in social

interactions experienced by autistic individuals. Interestingly, Whitehouse et al. (2010) noticed the existing trend for nationality discrepancies in their research; the UK (England) sample always showed a greater level of impairment. Happé et al.'s (2016) (recruited participants from the UK) study findings presented decreased social abilities in the autistic adult population. These discrepancies between the studies may indicate differences in the outcomes based on the utilised measurements. Furthermore, studies, which demonstrated more negative results regarding social competence of the autistic adult population, were conducted via self-reports (e.g., Happé et al., 2016; Lord et al., 2020; Sosnowy et al., 2019) or based on the analysis from clinical reports (Libster et al., 2023), however, the ones which reported more positive outcomes, constituted (also) their family members' accounts (Hoekstra et al., 2007; Whitehouse et al., 2010). This may indicate that there is a possibility of differences in perceptions of the social skills in the autistic population, with the autistic participants having more negative perceptions of their own social competence than their family members might have about them.

The non-social features of ASD are characterised by RRBIs, including stereotyped movements (e.g., stereotyped march, swinging), as well as language problems (stuttering) and these behaviours tend to diminish in pervasiveness and asperity during the developmental period, especially in autistic individuals presenting normal IQ (higher or equal 70). Obsessive-compulsive features, however, which can be characterised by impulsive behaviours, self-injury, and peculiarity of interests, often persevere into adulthood in autistic individuals (Murphy et al., 2016). An older age of diagnosis of ASD has been found to be significantly linked with a lower rating for constrained interests but a higher rating for persistence on repetitive motor behaviours (Uljarević et al., 2020). A significant relationship was reported between male sex and the higher ratings for repetitive motor behaviours. Two domains of RRBs; insistence on sameness and circumscribed interests were linked with greater social problems, and constrained interests were linked with greater communication problems. The intensity of constrained interests and the lack of ability to inhibit it may restrict a child's involvement in other activities and disturb the child's learning and forming social relationships (Uljarević et al., 2020). If the RRBIs have a sexual component, they may also lead to adverse

consequences such as sexual offences (e.g., masturbating in public places, paraphilia) (e.g., Katz & Zemishlany, 2006; Ray et al., 2004).

#### I.2.3.4. ASD co-occurring Conditions

ASD-associated impairments include cognitive and intellectual impairments, which are estimated to occur in approximately 30% of autistic individuals (Centers for Disease Control and Prevention [CDC], 2016). Studies show a highly variable percentage (between 18%-83%) of ASD co-occurring with attention deficits (Caamaño et al., 2013; Gjevik et al., 2011; Joshi et al., 2010; Leyfer et al., 2006; Mannion et al., 2013; Simonoff et al., 2008; Sinzig et al., 2009). A meta-analysis (Lai et al., 2019), which included 96 studies of the prevalence of co-occurring mental health conditions in the autistic population, found that ADHD co-occurs with ASD in 28% of the autistic population. A more recent meta-analysis (Hollingdale et al., 2020) that included 22 publications in the analyses found that 21% of children and young people with ASD also have ADHD. The meta-analysis reported no significant difference between community samples (19%) and clinical samples (24%). Furthermore, anxiety has been estimated to occur in around 40% of autistic individuals (Avanti et al., 2018; Simonoff et al., 2008; Van Steensel et al., 2011) and depression in about 12%-14% (Hudson et al., 2019). Immune deficits, sleeping problems and a range of comorbid medical conditions have also been reported in autistic individuals (Croen et al., 2015). Genes can additionally play an important role in determining ASD susceptibility; 5% to 15% of ASD cases can be linked to genetic aetiology, for example, fragile X syndrome, tuberous sclerosis, and Timothy syndrome (Devlin & Scherer, 2012). All of these conditions may affect the young people's capabilities to form social and romantic relationships (Thapar et al., 2023; Toseeb & Asbury, 2023).

# I.2.4. Attention-Deficit/Hyperactivity Disorder (ADHD)

ADHD is a neurodevelopmental disorder which is characterised by persistent patterns of inattention or/and hyperactivity/impulsivity which interfere with development and functioning (APA, 2013). ADHD is one of the most common neurodevelopmental disorders in children and adolescents, which persists into adulthood; up to 70% of young people diagnosed with ADHD still display ADHD impairments in adulthood (Biederman et al., 2010; Caye et al., 2016b; Faraone et al., 2006; Sibley et al., 2017). ADHD is divided into three presentations: predominantly inattentive, predominantly hyperactive-impulsive, and combined (APA, 2013).

Inattention is persistent and hinders an individual's daily functioning, negatively impacting on their social and professional activities. For example, an individual with ADHD may find it difficult to sustain attention in tasks, often does not pay attention when spoken to (their mind appears elsewhere); struggles to complete activities, quickly moves from one activity to another; displays organisational difficulties, gets easily distracted, loses and forgets things (APA, 2013). Young individuals with inattentive symptoms are more likely to be undiagnosed (Caci et al., 2016). The reason for this is that they do not present with behavioural problems such as, for instance, fighting or arguing and only these functional difficulties are noticed in children (Lollar et al., 2012). The reason for this, in turn, might be lack of awareness of ADHD (Caci et al., 2016). Consequently, these young individuals may experience difficulties with accessing medical care (Baggio et al., 2019). Their academic achievements may also be lower in comparison with young people without the condition (Morsink et al., 2021; Sedgwick-Müller et al., 2022; Wu & Gau, 2013).

The presentation of hyperactivity/impulsivity is characterised by behaviours such as, for example, frequent fidgeting with or tapping hands; struggling to remain in one position for a longer period (e.g., walking away when supposed to be sitting); often interrupting in conversations; talking excessively. All these characteristics negatively impact on the individual's quality of life and relationships (APA, 2013). Young individuals with ADHD with hyperactivity and impulsivity presentation are also more likely to display aggressive behaviours and have the history of substance use (De Alwis et al., 2014; Evans et al., 2015). Combined presentation occurs when both inattention and hyperactivity/impulsivity are present together.

#### I.2.4.1. Diagnostic Criteria for ADHD

According to the criteria in the DSM-5 (APA, 2013, [314.0X {F90.X}] p.1-2) and DSM-5-TR (APA, 2023), to meet diagnostic criteria for ADHD an individual must exhibit 1) five or more symptoms of inattention and/or hyperactivity/impulsivity that last minimum six months and hinder the individual's development and social and academic/occupational activities; 2) several symptoms of inattention and/or hyperactivity/impulsivity occurred before the age of 12; 3) several symptoms of inattention and/or hyperactivity/impulsivity must occur in at least two settings (home, school); 4) symptoms clearly affect the individuals personal and occupational life; and 5) symptoms do not present solely during the course of schizophrenia or another psychotic disorder and they cannot be better explained by a mental disorder (e.g., anxiety disorder, personality disorder) or substance intoxication/withdrawal.

# I.2.4.2. Epidemiology

According to the World Mental Health (WMH) cross-national community epidemiological surveys, a mean global estimate of the prevalence of ADHD in children and adolescents (age < 18 years old) is 2.2%, and in the adult population (age 18-44 years old) 2.8% (Fayyad et al., 2017). According to the DSM-5, childhood prevalence of ADHD estimates 5% (APA, 2013). The worldwide meta-analysis (Polanczyk et al., 2015) conducted on 41 studies from 27 countries reported the prevalence of ADHD of 3.4%. A systematic review (Sayal et al., 2018) on global community prevalence reported between 2%-7% outcomes that are very similar to the WMH report. In the UK, the general prevalence of ADHD is estimated as 0.76% (O'Leary et al., 2014). The more recent study in the UK (Wales) (Langley et al., 2023) reported the ADHD prevalence at 1.4% among young people (by the age of 18 years old).

Globally, a systematic review (Faheem et al., 2022) reported the male-female ratio of ADHD is between 1:1-2.5:1. In the UK, male to female ratio of ADHD is estimated

at 2:1 in a community sample (Millenet et al., 2018; Willcutt, 2012), whereas in a clinical sample it is 5.5:1 (for ages 6-12 years old) (McCarthy et al., 2012). A recent study (Langley et al., 2023) reported that 2.2% of males and 0.6% of females have the ADHD diagnosis in the UK (Wales). Nevertheless, ADHD symptoms tend to be less apparent in females than males and therefore the condition may be less recognised or unnoticed amongst females (Meyer et al., 2020; Quinn & Madhoo, 2014). Some of the reasons for this may be that female presentation of ADHD is typically less explicit and disruptive (e.g., females display less aggressive behaviours than males) in nature than the males' (Meyer et al., 2020) and the existence of the male-oriented diagnostic assessments, which may fail to include that ADHD characteristics often present differently in females than males (Nussbaum, 2012), with females often presenting more internalising behaviours, emotional dysregulation and inattention (Young et al., 2020). A recent study (Morgan, 2023) reported that females who received the diagnosis of ADHD in adulthood failed to gain adequate support in their childhood due to gender and racialised stereotypes regarding ADHD, effective masking behaviours, and a lack of professional knowledge related to the condition.

## I.2.4.3. Developmental Course of ADHD

Typically, a child receives a diagnosis of ADHD when they are 3-5.5 years old (Egger et al., 2006; Posner et al., 2007), although recent literature highlights that for a substantial proportion of people, onset of ADHD does not occur until adulthood (Agnew-Blais et al., 2016; Caye et al., 2016a; Moffitt et al., 2015). In general, many preschool children tend to display disruptive behaviours, and are highly active, and this makes it challenging for identifying ADHD at such an early age (Overgaard et al., 2022). They also develop very quickly in terms of their social, cognitive, and motor skills, which adds a difficulty to the diagnostic assessment. It is additionally assumed that children would grow out of their misconduct and hence early diagnosis could be potentially harmful (Overgaard et al., 2022). In clinical cases of children with ADHD, disruptive behaviours, however, are more common and hard to manage across different settings (e.g., school, home), consequently they result in physical injuries and low academic performance

(Egger et al., 2006; Posner et al., 2007). Inattention has been associated with academic risk (Sayal et al., 2020). A-6-year follow up study on preschool children (around 53,000) conducted in the UK (Sayal et al., 2020) showed that, controlling for some variables, inattentive behaviours were linked with poorer outcomes of English and maths tests scores, however, impulsiveness was associated with slightly greater test scores. Nonetheless, behaviours of inattention and impulsivity are often correlated, and some reviews highlight that both dimensions affect children's academic performance and often are linked with poorer outcomes of their performance (Tan et al., 2021). Perrin et al. (2019) demonstrated that preschool children with ADHD (age 4-5 years) displayed impaired school readiness (comprising five elements: social and emotional development, motor development, approaches to learning, language, cognition, physical well-being and general knowledge) (79% to 13%) when compared to their counterparts without the condition. This is likely due to the cognitive and social impairments that are characteristic to ADHD (APA, 2013) and both skills are regarded crucial in learning (Ronfard et al., 2022). The subtype of hyperactivity/impulsivity is more common in pre-schoolers than older children since hyperactivity tends to become milder with age for some children with ADHD (Franke at al., 2018; Galéra et al., 2011; Vos & Hartman, 2022). On the other hand, the inattentive subtype is less common in younger children and becomes more apparent when the children grow older (Franke at al., 2018; Galéra et al., 2011). ADHD persists into school age in around 60%-80% of children diagnosed with ADHD in their preschool age (3-4 years old) (Barkley, 2010). School-aged children with ADHD display behavioural problems both within their family and peer interactions, as well as poor academic achievement (Kumperscak, 2013).

During adolescence, hyperactivity and impulsivity symptoms tend to reduce and are substituted by feelings of anxiety, restlessness and unhappiness when unoccupied (De Rossi et al., 2023; Karam et al., 2009; Murray et al., 2020). In adolescence, impulsivity presents as disruptions of others, interruptions, making impulsive decisions, multitasking, feeling low when unoccupied and in high spirits when something is happening (Dekkers et al., 2020; Martine et al., 2007). Inattention presents as a lack of organisational and listening skills, unpunctuality and forgetfulness (Kumperscak, 2013; Pickett, 2016). Due to various negative experiences, some young people with ADHD, develop this "negativity"

feeling as a part of their self-image, feelings and thoughts about oneself (Becker et al., 2020; Millenet et al., 2018).

In adulthood, individuals with ADHD display academic challenges at different levels of severity (Anastopoulos et al., 2018; Owens & Hinshaw, 2020; Sedgwick-Müller et al., 2022), and occupational performances (Fuermaier et al., 2021), risky sexual behaviours (RSBs), early unwanted pregnancies (Chen et al., 2018; Owens & Hinshaw, 2020), marital problems (Öncü & Kişlak, 2022; Schermerhorn et al., 2012), encounters with the Criminal Justice System (CJS) (Young & Cocallis, 2022) and psychiatric cooccurrences (Lin et al., 2016).

# I.2.4.4. ADHD co-occurring Conditions

Around 50% of children with ADHD also have at least one other co-occurring disorder (Gau et al., 2010; Ter-Stepanian et al., 2017), the most typical being anxiety disorders (25%-33%) (Lawrence et al., 2015; Souza et al., 2005; Tannock, 2009; Ter-Stepanian et al., 2017), oppositional defiant disorder (ODD) (around 50%) (Maughan et al., 2004; Ter-Stepanian et al., 2017), learning disorders (Mayes et al., 2018; Rutter et al., 2006) and ASD (22.5%) (Langley et al., 2023).

# I.2.5. Autism Spectrum Disorder Co-occurring with Attention-Deficit/Hyperactivity Disorder

Clinical heterogeneity is a well-recognised feature of ASD. A significant number of children who display core symptoms of ASD including impairments in social interactions, restrictive/repetitive behaviours and interests also present with features of ADHD such as, hyperactivity, impulsivity and inattention (Baker & Blacher, 2015; Carta et al., 2020; Colombi & Ghaziuddin, 2017; Corbett et al., 2009; Llanes et al., 2020; Mansour et al., 2017). Studies have found that from around 13% to 62.7% of individuals with ASD also meet criteria for ADHD (e.g., Avni et al., 2018 [62.7%]; Hanson et al., 2013 [16%]; Langley

et al., 2023 [15.3% of young people up to 18 years old]; Llanes et al., 2020 [ 22% of preschool children and 45% of school-aged children]; Miodovnik et al., 2015 [20%]; Rong et al., 2023 [38.5%-40.2%]; Simonoff et al. 2008 [28.2%]; Zablotsky et al., 2020 [13%]). The variation in findings across studies may be explained by the variability in diagnostic approaches taken. For instance, most studies relied on clinicians' reports on standardised tests (e.g., Autism Diagnostic Observation Schedule [ADOS]) (Avni et al., 2018; Hanson et al., 2013; Llanes et al., 2020; Simonoff et al. 2008) or parents' reports based on combination of interviews with standardised tests (e.g., the Autism Diagnostic Interview-Revised [ADI-R] in Hanson et al., 2013; Achenbach System of Empirically Based Assessment (ASEBA) in Llanes et al., 2020); parents were also asked if their child had clinical diagnosis in Zablotsky et al., 2020). Studies with smaller sample sizes (Avni et al., 2018 [N=260]; Llanes et al., 2020 [N=180]; Simonoff et al. 2008 [N=112]) reported higher percentages of the disorders' co-occurrence than those with larger samples sizes (Hanson et al., 2013[N=1,838]; Miodovnik et al., 2015 [N=1496]; Zablotsky et al., 2020 [N = 2,464]). All studies looked at groups of children and adolescents with a significant majority of male participants. Zablotsky et al. (2020) reported a difference in the results of ASD and ADHD co-occurrence in children aged 4-11 and 12-17 years old; with the results showing 18.7% and 10% respectively. This discrepancy may be attributed to the greater awareness of neurodevelopmental conditions and the importance of early identification in recent times (Zablotski et al., 2020).

Research indicates that individuals with a dual diagnosis (ASD co-occurring with ADHD) exhibit more severe symptoms of autism (e.g., higher stereotypic and repetitive behaviours) (Factor et al., 2017; Pallanti & Salerno, 2020; Rao & Landa, 2014), higher rates of cognitive impairment (e.g., low functioning autism, greater impairment in verbal memory and recall) (Andersen et al., 2013; Rao & Landa, 2014; Thomas et al., 2018), and higher impairments in adaptive abilities (e.g., greater difficulties with social interactions resulting in greater peer and family conflicts) (Ashwood et al., 2015; Factor et al., 2017; Pallanti & Salerno, 2020; Rao & Landa, 2014; Yerys et al., 2019) when compared to individuals with autism alone. Adaptive abilities include effective communication with others, building relationships, participating in social activities, maintaining personal hygiene and taking care of one's living space (Sparrow et al., 2016), hence they are key

measures of independence (Yerys et al., 2019). Individuals with a dual diagnosis have also been found to display increased cognitive impairments pertaining to response inhibition (Ames & White, 2011; Ronald et al., 2014; Sinzig et al., 2008; Yerys et al., 2017), verbal working memory (Andersen et al., 2013) and facial emotion recognition (Tye et al., 2013). A dual diagnosis is also linked to increased emotional impairments (Llianes et al., 2018), as well as behavioural problems (Flouri et al., 2015; Jang et al., 2013; Llianes et al., 2018) including RSBs (Flory et al., 2006) and the possibility for developing psychiatric conditions (e.g., bipolar disorder or depressive disorder) (Chen et al., 2015; Pehlivanidis et al., 2020). A recent systematic literature review (Rosello et al., 2022) conducted on 34 studies, also demonstrated that individuals with a dual diagnosis exhibit serious impairments in executive and social functioning including communication difficulties, social living skills challenges, emotional and conduct difficulties. Interestingly, that review highlighted that the presence of ADHD characteristics (impulsivity) may positively influence cognitive inflexibility which is a characteristic of ASD.

ADHD symptoms have been demonstrated to contribute to the deterioration of a general quality of life when compared to individuals with only autism (Rao & Landa, 2014; Sikora et al., 2012). For example, Thomas et al. (2018) conducted a quantitative study based on parent and teacher surveys, which explored physical and psychological functioning in children with ADHD co-occurring with ASD compared with ADHD alone, and whether decreased physical quality of life (QoL) is associated with increased emotional and behavioural problems in children with ADHD co-occurring with ASD. The results demonstrated that children with a dual diagnosis showed poorer psychological and physical QoL, and greater parent-reported behavioural, emotional, and peer problems when compared with children with ADHD alone. Poorer QoL has been found to be a vital contributory factor in mediating the emotional and behavioural functioning of children with ADHD co-occurring with ASD (Thomas et al., 2018).

Mikami et al. (2019) assert that individuals with a dual diagnosis may not only have a decreased motivation to socialise with peers (which is a characteristic of ASD) but this diminished social motivation may contribute to reduced incentive to limit competing responses (which is a characteristic of the ADHD) because the apparent benefits to do so have no real value. Thus, individuals with a dual diagnosis may experience greater social

interactions challenges than their peers with a single condition (ASD or ADHD). Individuals with a dual diagnosis therefore deserve special attention in terms of their psychosocial functioning (Rosello et al., 2022).

The overview provided of the neurodevelopmental conditions aims to highlight the impact that these conditions may have on an individual's life and specifically their social functioning, which is crucial in navigating romantic relationships (Kansky et al., 2019). Offering insights into the conditions' epidemiology was also essential; the information presented illustrated that the conditions affect a substantial number of young people across the globe and in the UK. These conditions additionally co-occur highly with other psychiatric conditions (e.g., Avanti et al., 2018; Hudson et al., 2019), as presented in the above sections in detail, which additionally accentuates the difficulties that these groups of young people may face in their lives in addition to social impairments which are inherent in neurodevelopmental conditions. All these aspects might be crucial when trying to understand the importance of offering appropriate sexuality education to ND young people.

#### **I.3.** Introducing Personal Reflexivity in Relation to the Project

I am a white cisgender, heterosexual female. I am also a migrant; I grew up in a post-communist country. Sexuality was a taboo topic in my culture. As a teenage student in my country, I had no sexuality education apart from a few biology lessons on the reproductive system. The only source of sexuality information for me was literature (magazines and books) as the internet was not easily accessible back in those times. Since the topic of sexuality was a cultural taboo, I never had any conversations about any of the issues related to sexuality with my parents. When I reflect upon this, it seems a bit strange to me that my mother, who had always been a very open-minded person, never spoke to me about sexuality. I guess the reason for this might be that simply that was a non-existent topic in our culture. There were additionally no discussions in my schools (primary and grammar) about diversity and inclusion. Since I was a young teenager, I

have always been interested in the topics of diversity and inclusion. It might have been due to my mother teaching me about the importance of equality for every human being, irrespective of their race, or disability, and especially for those groups of individuals oppressed or rejected by society. As a teenager, I also became interested in history, and I learnt how the lack of acceptance of minority groups in society may lead to appalling atrocities.

I thus was quite an open-minded young person, and I always knew that the country I lived in, was not a place for me. Despite its democratic system (more in theory than in practice at some levels), it was still very limited in terms of human rights, freedom, and acceptance of diversity. Mainstream schools were not inclusive of disabled students (they attended special needs schools), and people of different sexual orientations than heteronormative were ostracised. I longed for living in a more open and inclusive country and thus I decided to migrate to England. Living in this country, however, I noticed that some areas also lack in terms of inclusivity and equality. While being an undergraduate psychology student, I had the privilege to work with young autistic people and young people with different disabilities, and I also made friends with neurodivergent individuals. That time I first started to learn about some neurodivergent young people's struggles with romantic relationships. This is also how my interest in neurodiversity began. Later, as a master's degree student, I had an opportunity to work for some time as a research assistant on the Autism and the Criminal Justice System research project at my university. Reading the literature related to the project, I came across information about sexuality education, or more specifically, its inadequacy for autistic young people. I also learnt that many autistic young people, often due to inadequate knowledge about sexuality and romantic relationships, struggle with navigating the complicated world of romance and this lack of adequate knowledge may sometimes lead some of them to negative, legal consequences. I realised that this important area is under-researched. I learnt similar information regarding romantic relationships in young people with ADHD; importantly, I could not find any relevant information discussing sexuality education for this group. I realised that that was a very important gap in the current knowledge and thus it seemed like a good idea for the PhD project. Additionally, I read that the two conditions (autism and ADHD) often co-occur; I

searched for the information about romantic relationships and sexuality education related to individuals with a dual diagnosis, however, I failed to find any relevant articles. I decided to pursue a greater understanding of all those mentioned areas in the PhD project.

#### I.4. Conclusion

This chapter introduced the neurodevelopmental conditions that are the focus of this project. This information may help the understanding that there is a significant percentage of young people around the globe and in the UK who are ND. Being ND may consequently affect their abilities to socialise with others which is an important element in navigating romantic relationships. This may suggest the importance of introducing tailored support regarding sexuality and romantic relationships for this group of the population. This chapter has additionally outlined the researcher's position toward the neurodiversity paradigm, as well as introduced her personal reflexivity in relation to this project.

Chapter II will outline the sexual development of young people. This will help highlight why adequate sexuality education for young people (NT and ND) is essential. The chapter will also provide background information related to sexuality education and romantic relationship experiences in young people. Specifically, it will discuss the destabilisation of sexuality education throughout the history of the UK, followed by the current debates surrounding sexuality education and its usefulness (or lack thereof) for young people including the ND groups. It will additionally offer information about the importance of adults (parents and educators) in shaping young people's attitudes toward sexuality and romantic relationships. Providing this information aims to emphasise the necessity of the studies conducted in this project.

#### **Chapter II: Sexuality Education**

#### II. 0. Introduction to the Chapter

This chapter will begin with information related to the typical sexual development in young people. This will help outline why an adequate sexuality education for young people is essential. This will be followed by information relating to the prevailing debates surrounding sexuality education through the lens of history, comprising the background about the destabilisation of sexuality education for young people including young people who have disabilities, and the debates regarding 'for whom and by whom' sexuality education is created. All this information is important to highlight how the discourses surrounding sexuality education for young people throughout history have influenced the current discourses and hence the practicality of sexuality education for young people. This will be followed by the inclusion of information related to the current sexuality education for young people (NT and ND). Additionally, given that topics related to romantic relationships are essential aspects of current sexuality education, this chapter will briefly explore romantic relationship experiences in young people (NT and ND). The importance of adults in supporting young people's development of attitudes towards sexuality and romantic relationships will also be discussed (Chapter III will explore these subjects in detail). All this information is crucial to demonstrate why there is a need for improving sexuality education for young people, especially for the ND populations.

#### **II.1. Typical Sexual Development in Young People**

DeLamater and Friedrich (2002), based on empirical research, proposed three phases of sexual development in children and young people: *childhood* (birth to seven years old); *preadolescence* (eight to 12 years old); and *adolescence* (13-19 years old).

*Childhood*: the development of sexuality starts with the birth of the child (Kurtuncu et al., 2015). In the early stage, the sexual development of children has been observed in the form of them fondling their genitals, which occurs at the age between

two and a half to three years old. Even earlier, in the first 24 hours after birth, male infants have been observed to experience erections and female infants have been reported to have virginal lubricants. These are natural forms of sexual expression (DeLamater & Friedrich, 2002). The child's relationship with their parents, typically the attachment or bond, has a substantial contribution to the child's capacity of their sexual and emotional relationship experiences later in life (Bowlby et al., 1965). The way that parents nurture their child's sexual development is vital in shaping the child's attitudes towards sexuality (Cale & Lussier, 2017). The secure attachment may be the indication of positive and secure emotional, sexual relationships in adulthood (Goldberg et al., 1995). Between the age of two to five years, a child develops a gender identity and hence can identify themselves as a boy or girl (Mesman et al. 2019). The child also learns to acknowledge that there are differences between males' and females' genitals and shows natural curiosity in seeing other children's genitals. Children additionally start to recognise what confidentiality is, as well as the concept of nudity (Mesman et al. 2019). During this phase, children tend to touch other people's body and watch them, and they also tend to touch their own sexual parts, and this is a common process during development (Aydoğdu et al., 2021).

*Preadolescence*: typically, during this phase, children engage in socialising with the same genders (males with other males and females with other females) (DeLamater & Friedrich, 2002; National Center on the Sexual Behavior of Youth [NCSBY], 2023). In this period, children are more likely to explore and learn about sexuality of the same gender persons (DeLamater & Friedrich, 2002; NCSBY, 2023). Masturbation is a natural way of learning about own sexuality during development (Driemeyer et al., 2017; NCSBY, 2023). Masturbation, however, may occur during any age in childhood (Mallants & Casteels, 2008). Children often explore their sexuality during prepubescent period and the discovery of pleasurable parts of the body may lead to masturbation (Mallants & Casteels, 2008). During preadolescence, young people start to engage in heterosexual parties and group dating. Boys and girls spend time with people of the opposite sex and think about them when they are apart. These experiences are the beginning of the development of capacity for romantic relationships (Furman, 2002; NCSBY, 2023).

Adolescence: during this period, the biological changes begin to occur to the body, gonads and genitals enlarge and mature, pubic hair develops, breasts in females, and facial hair in males grow; all these changes increase the urge for sexual experience (DeLamater & Friedlich, 2002; NCSBY, 2023). Cultural differences, however, are essential in sexual development as culture gives meaning to the way in which reproductive maturity is recognised (Manago et al., 2014). In many cultures puberty is a sign of womanhood or manhood. For example, among the Zinacantec Maya in Chiapas, Mexico, puberty for a girl indicates that she is ready to become a wife (Manago et al., 2014). In Western societies, puberty for a girl means that she is a teenager, attends a high school, and may start to date (Manago et al., 2014). During adolescence, many young people start to engage in sexual activities including intercourse (Koyama et al., 2009; NCSBY, 2023). However, cultural norms and societal attitudes towards sexuality also differ (Blanc, 2021) including attitudes towards men's and women's sexuality (Klein et al., 2019). Ethnocultural groups have also their own sexual attitudes; the minority groups have been found to have more conservative beliefs regarding sexuality than the majority group (Blanc, 2021 [US]). For example, as discussed in Blanc (2021), Asians have more conservative attitudes towards sexuality than Latinos and Euro-Americans and towards homosexuality and casual sex than Hispanics and Euro-Americans. African Americans show the most liberal sexual attitudes, followed by White Americans, then by Hispanic Americans and Asian Americans.

Martinez and Abma (2015 [US]) found that between the years 2011-2013, 44% of female teenagers and 47% of male teenagers experienced sexual activity by the age of 19 years. In the UK, Van Leeuwen and Mace (2016) reported that adolescents experience sexual activity by the age of 17.5 years. In adolescence, the gender identity shapes, and young person may emerge with a sense of manhood, womanhood, or they may feel conflicted about their gender identity. Similarly, sexual identity emerges, young people may feel they are heterosexual or homosexual (DeLamater & Friedlich, 2002, de Graaf et al, 2018; Steensma et al., 2013). Teenagers additionally learn what they like and do not like in terms of their sexual experiences, and how to prevent potentially adverse sexual experiences (de Graaf et al., 2011). Research (e.g., de Graaf et al., 2011; Overbeek et al., 2018) has shown that parental support and knowledge play a crucial role in children's

sexual development; higher levels of support have been associated with the delay in the first sexual intercourse, higher levels of contraception use, less engagement in risky sexual behaviours (RSBs), and greater feelings of competence in sexual interactions. Sexual development is also a process that involves feelings of interest, fulfilment, and enjoyment (Clionsky & N'Zi, 2019). It incorporates aspects of psychosocial development, which include abilities to experience intimate romantic relationships, marriage, and having children (Murphy & Elias, 2006).

The above information highlights that sexuality is a normal part of the life of every person (see e.g., DeLamater & Friedrich, 2002). Young people go through several stages in their sexual development, and they discover their sexuality and interest in forming romantic and sexual relationships with other people (see e.g., DeLamater & Friedrich, 2002; NCSBY, 2023). This emphasises the fundamental role of sexuality education for young people; this topic will be discussed in the following section.

#### **II.2.** Discourses Related to Sexuality Education

#### II.2.0. Introduction

This section will begin with the description of sexuality education through the lens of history. It will introduce the dominant discourses related to sexuality education across the past decades. This information aims to provide the important background for the necessity of continuing the narrative about sexuality education for young people and especially for the ND population.

## II.2.1. Prevailing Debates Surrounding Sexuality Education Through the Lens of History

In England, the government policy on school-based sexuality education became more explicit in the early 1940s and it was inspired by the portrayal of sexuality as a cause of *'moral and social problems'* born during wartime (Pilcher, 2004, p.191). The

implication of the relaxed moral standards amongst young people, as conceptualised by Ewing (1944) and Bennett (1945) led to increased incidences of venereal disease. Therefore, it was proposed that sexuality education for young people (schools only were encouraged to promote such discussions) should not only focus on the aspects related to sex physiology and hygiene but also introduce moral education (based on Christian teaching) with primary attention to teaching about family (Bennett, 1945; Ewing, 1944). The discussions, however, were primarily focused on ensuring that sexuality education is treated with caution since too much of this kind of education may increase young people's desire to experiment with sex, which may have disastrous consequences (Ewing, 1944). This notion may be associated with the protection of innocence in children (see Atkins & Mintcheva, 2006; Weeks, 1989) and suggests that by a lack of exposure to sexuality education, young people may remain innocent. Nonetheless, this social concept of keeping 'young people innocent' and thus protecting them from information related to sexuality may have adverse consequences as illustrated by Levine (2002) in her book 'Harmful to minors. The perils of protecting children from sex'. The author argues that restricting young people's access to adequate sexuality education may lead to sexual danger including the inability to make intelligent choices, misinterpretation of facts and unjustified assumptions. This lack of understanding of important information related to sexuality predisposes young people to have adverse sexual experiences.

It is interesting to note that already at that time (1940s), there were also some voices (outside the UK) depicting sexuality education in a more positive light, encouraging the discussions related to sex and pleasure (Bibby, 1943). Nonetheless, in the 1950s, sexuality education remained a matter of choice in schools (the decisions regarding the topic were made by the schools' headteachers) and it continued to keep the focus mainly on promoting family life. The role of the educators was also to ensure that young people do not develop 'abnormal behaviours' (this concerned homosexuality in men and prostitution in women) (Pilcher, 2004).

In the 1960s, another voice promoting positive sexuality education appeared, this time it came from James Dalzell-Ward, who was the Chief Medical Officer of the Health Education Council in England. He advocated that sexuality education should not be entirely concentrating on the procreation of children; however, it should also

acknowledge sex as a positive 'aspect of personal fulfilment, involving the deepest emotions.' (Dalzell-Ward, 1965, p.22). Despite this, the conservative biological approaches promoted in the 1950s still dominated the discourses surrounding sexuality education during this time.

In the 1970s, the narratives related to sexuality education for young people centered on 'responsible' sexual behaviours among unmarried people (Iyer & Aggleton, 2015). Later, in the 1980s and 1990s, despite the growing understanding of the importance of sexuality education, schools' headteachers continued to make decisions regarding what topics were taught during sexuality education in their schools (Pilcher, 2004), and in the 2000s, sexuality education was also linked with sexual health services (Iyer & Aggleton, 2015). Sexuality education became a compulsory subject only in September 2020 (Long, 2020) (this point will be discussed in more detail in the following section).

Throughout the decades, the discourse of sexuality education for young people has been shaped predominantly through the prism of adverse sexual experiences including fears of sexually transmitted diseases (STDs) (e.g., venereal disease, HIV and AIDS), or unwanted teenage pregnancy, as well as the portrayal of sexuality education as *'the dangers of disease, pregnancy, loss of reputation and moral character'* (Iyer & Aggleton, 2015, p.4) and the emphasis on promoting family values (Iyer & Aggleton, 2015).

Throughout those years, the topics of whether young people should be encouraged to control (hence sex is corrupting; the protection of innocence in children; focus on protecting young people from displaying RSBs) or celebrate their sexuality (the voices promoting sex and pleasure) have been the subject of much debate (Iyer & Aggleton, 2015). The dominant discourse portraying sexuality as a means to 'protect' young people from unwanted sexual experiences, as opposed to offering them the knowledge to understand their sexuality raised an important question for whom and by whom the system was created. Over two decades ago, Wagener (1998, pp.8-9) implied that educational institutions through their curricula aimed to govern young people's lives:

"Underlying the continual debates about sex education, with their moral and religious underpinnings, are curriculum discourses in which normalizations about human behaviour were and are institutionalized [...] the continual and changing conceptualizations (but at any given time normalized constructions of male and female and adolescent sexual behavior) that become part of the governance of individuals and social groups [...]".

Around the same time, Moran (2002) opined that sexuality education had very limited value for young people, rather it was designed by adults to help improve young people's sexual behaviours. This preceding question 'for whom and by whom' sexuality education was created, continues to be relevant in recent times as the emphasis on the biological aspects of sexuality education (hence the need to reform/decrease RSBs in young people), which was highlighted in the approaches to the subject throughout history, still strongly echoes in the current debates on the topic (Mitchell et al., 2021). Mitchell et al. (2021) assert that public health approaches to sexuality focus firmly on the medical and biological aspects of sexuality and the adverse health outcomes, as opposed to promoting positive factors in sexuality (e.g., sexual pleasure- hence creating sexuality education for young people [this point will be elaborated on in the subsequent sections]). However, sexual and reproductive health in young people is a substantial concern for public health since healthy young people are vital for the development of a country (Yeo & Lee 2023). Mitchell et al. (2021) thus propose an introduction of a biopsychosocialcultural framework of sexuality, which would locate sexual well-being in relation to sexual health and include sexual pleasure as a vital factor for a person's well-being. Sexuality education that would incorporate these essential aspects would be inclined to listen to young people's voices on the topic (this will also be discussed in the following sections).

The narratives of moral panics or sex panics (which can be understood as *'recursive conflicts over sexual issues'* [Irvine, 2006, p.82]) throughout the history of sexuality education, consequently led to the systematic destabilisation (significant disruptions in the way that sexuality education was structured and delivered) of sexuality education in the United States (Rasmussen, 2010). In the UK, the moral panic related to

sexuality education over the decades may be understood as an 'exaggerated discussion of the potential content of sexuality education; and sexuality education is constituted as part of a battle over moral hegemony.' (see Rasmussen, 2010, p.123). It is apparent that throughout the decades there have been little, if at all, changes regarding sexuality education controversies in the UK (Cumper et al., 2023). Despite the inclusion of sexuality education as a mandatory subject in 2020 (DfE, 2019; Long, 2020), there is still a (moral) dilemma related to what topics should and should not be taught during the lessons. The recent ongoing debates related to this issue include contraception, LGBTQ+ sexuality, unhealthy relationships, consent, and gender; the arguments are still being advanced by medical, rights-based, cultural, religious and secular ideological justifications (Cumper et al., 2023). Inadequacy of sexuality education appears to be a global problem since similar debates surrounding the topic occur in many countries, however, providing details of the disputed issues is beyond the scope of this project (for further information see, e.g., Benjamin et al., 2023; Davies & Kenneally, 2020; Walker et al., 2023).

The following section (II.2.2.) will offer insights into current sexuality education. This will help highlight the impact that the past discourses about sexuality education have on the current outcomes of sexuality education for young people and consequently, it will emphasise the need to continue exploring this topic amongst young people and especially the ND groups.

#### II.2.2. Current Sexuality Education for Young People

Comprehensive sexuality education should deliver holistic development comprising emotional, cognitive, social and physical aspects that value diversity and differences, bodily autonomy, reproductive health and evidence-based education (Bialystok, 2019; Schnitzler et al., 2023). Sexuality education should focus not only on the physical aspects of sexuality but also offer young people a foundation for building their romantic relationships (Tatter, 2018). Sexuality education for young people is therefore vital as it increases their knowledge and promotes positive attitudes toward sexuality, sexual health and romantic relationships (O'Brien, 2021; Tatter, 2018). Consequently, it

aims to delay sexual initiation, reduce the frequency of sexual interactions and partners, promote the use of contraceptive methods and strengthen relationships and gender equality (O'Brien, 2021). Contrarily, inappropriate sexual conduct, sexual abuse and victimisations are among the risks inherent in the failure to deliver appropriate training and sexuality education to young people (Travers et al., 2014). To address the complexity of sexual health, current evidence suggests a holistic approach to it by incorporating health professionals, mental health professionals, youth workers, and others (Schnitzler et al., 2023).

Indeed, professionals may provide young people with appropriate guidance about sexuality, clarify any misconceptions about sexuality that some young people may present, and offer gender-sensitive support (Hodax et al., 2020). Professionals may also offer support concerning sexual pleasure and help young people make educated decisions regarding their sexuality (Wagner et al., 2019). Having a conversation with a professional has been associated with a young person's greater perception of care (Wagner et al., 2019). There are, however, existing barriers to conversations about sexuality highlighted from the perspectives of both young people and professionals. Some of them include a lack of initiative, personal discomfort, and perceived judgment (Lung et al., 2021). As reported by Bungener et al. (2022 [Netherlands]), the majority (99.9%) of mental health professionals appreciate the importance of addressing sexuality with young people. Despite this, they feel hesitant to discuss this topic with their young patients. Amongst the reasons, they suggest a lack of awareness, lack of time, and presumed feelings of shame experienced by both them and their patients.

In England, sexuality education is termed "Relationships and Sex Education" (RSE) (Department for Education [DfE], 2019; Long, 2020) (in this project, the term 'sexuality education' will be used when discussing RSE) and it is mandatory in secondary schools (students ages: 11-16). In primary schools (children ages: 4-11 years), only "Relationships Education" is mandatory; however, primary schools may offer age-appropriate sexuality education if they choose to do so (Long, 2020). Sexuality education teaching includes aspects related to building and maintaining healthy relationships (e.g., commitment, conflict management, boundaries), recognising unhealthy relationships (e.g., sexual exploitation, abuse), and how relationships may influence health in general and

wellbeing. Other topics include online safety (e.g., legal rights regarding sharing and viewing indecent images of children), sexual knowledge (e.g., reproductive health, STDs, RSBs and information on lesbian, gay, bisexual, and transgender (LGBTQ+) communities (DfE, 2019; Long, 2020). Students should also be signposted regarding how to access information and support outside the schools on sexuality and romantic relationships (DfE, 2019). Sexuality education should be accessible for all students including those with special educational needs and disabilities (SEND), however, the lessons may require special adjustments depending on the needs of particular students (DfE, 2019; Long, 2020) (sexuality education for young people who have disabilities will be discussed in the II.2.2. section).

Research demonstrates that young people across the globe report the inadequacy of the sexuality education they receive (Allen, 2022). Allen (2022) highlighted that the focus of the teaching is mostly negative, promoting pregnancy prevention as opposed to positive aspects of human sexuality including pleasure and desire. Despite the voices calling for providing changes to sexuality education teachings, the system appears to be 'stuck' in the same position (Allen, 2022), as well as being unsatisfactory in terms of improving young people's attitudes toward sexuality and romantic relationships (Bragg et al., 2022 [UK]). This may be evident in the report 'A review of sexual abuse in schools and colleges' provided by Ofsted in 2021 in England, demonstrating over 54,000 testimonies submitted by young people about experiencing sexual abuse in schools or online. Hence, the Ofsted review strictly recommended that schools in England should tackle sexual abuse by reinforcing measures that will contribute to building a culture in which sexual abuse and harassment are not tolerated (Bragg et al., 2022).

An earlier literature review (Pound et al., 2016), which included studies conducted in different countries such as the UK, Ireland, the US, Australia, New Zealand, Canada, Japan, Iran, Brazil and Sweden also concluded that sexuality education delivered in schools renders students vulnerable. Students felt embarrassed and afraid of being humiliated in front of their peers, and some of them may have misbehaved to hide their anxiety. Sexuality education was also criticised for focusing too much on the biological aspects of sexuality and failing to acknowledge the importance of the emotional part of it. Young people concluded that the sexuality education they received was awkward,

outdated and non-beneficial (Pound et al., 2016). Similar findings were reported in a more recent qualitative study (Astle et al., 2021 [US]). In the UK, Nash and Browne (2021) reported that despite the implementation of an inclusive school curriculum, English schools often lack spaces (do not provide support) for other than heteronormative individuals. Bower-Brown et al. (2021) argued that the British educational system is fundamentally inadequate for individuals that identify as LGBTQ+. They additionally deemed that non-heterosexual students experience discrimination from both their peers and teachers within school environments in the UK.

Research also shows that young people across the globe suggested improving sexuality education by teaching topics related to diverse sexual identities and sexual behaviours, more updated and realistic content, discussions about emotional and relational aspects of sex, more frequent sexuality education lessons provided to earlier age groups and instructions delivered by professionals (Allen, 2022; Goldfarb & Lieberman, 2021).

Those illustrated reports (e.g., Allen, 2022; Goldfarb & Lieberman, 2021) regarding sexuality education re-raise the already existing concerns about 'for whom and by whom' sexuality education is created. As history has shown, it appears that the current system continues to be designed by adults whose role is to ensure young people do not present with risks associated with sexuality (e.g., STDs, pregnancy); however, aspects highlighted by young people as beneficial in terms of designing sexuality education, appear to keep being ignored.

Nonetheless, the necessity for providing improvements to the current system of sexuality education is essential (Goldfarb & Lieberman, 2021). Sexuality education should be updated and made more appropriate to the current reality of young people's sex lives and relationships incorporating the positive aspects of sexuality (Mitchell et al., 2021; Pound et al., 2016; Schnitzler 2023; Renold & Timperley, 2022). Schools should collaborate with young people on sexuality education to be able to provide high-quality teaching since established patterns of mutual respect between schools and their students promote better-equipped programmes of sexual health and well-being (Bragg et al., 2022 [UK]). Therefore, providing young people with a good quality and comprehensive sexuality education that would empower them to make healthy and

responsible choices regarding sexuality and romantic relationships is critical (United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2018; Yeo & Lee 2023).

Importantly, teachers should feel well-equipped to offer adequate sexuality education to young people. However, globally, including in the UK, many teachers report feeling ill-prepared to deliver this type of education (O'Brien et al., 2021; York et al., 2021), despite the international, best-practice guidelines that exist to support them in this context (UNESCO, 2018). In general, educators report not receiving adequate training regarding teaching sexuality education (O'Brien et al., 2021; Plaza-del-Pino et al., 2021; York et al., 2021 [UK]). Walker et al. s' (2021) review (which included 17 studies, most of which were carried out in the US and Australia; two were conducted in the UK), concluded that barriers to effective sexuality education include a lack of training and subsequent teachers' lack of confidence in teaching the subject. Walker et al. (2021) thus recommended providing sexuality education training to all teaching staff in schools including teaching assistants, as well as promoting the importance of sexuality education for young people. Another systematic review (Shepherd et al. 2016) (which included 20 studies mainly from the UK and Australia), reported that the training supporting teachers' delivery of health subjects increased their confidence in delivering lessons related to health. Generally, teachers' positive attitudes and beliefs toward promoting children's health also increased. Some of the teachers, however, still felt that they lacked the knowledge and confidence to provide teaching related to sensitive health issues (i.e., sexuality). Nonetheless, the sexuality education training guide for teachers is available on the UK government website (GOV.UK, 2022). The guide includes PowerPoint slides, which provide key concepts that should be taught in sexuality education including aspects related to romantic relationships, consent, contraception, STDs, and reproduction. Importantly, the government recommends adapting the training to suit specific school contexts.

Furthermore, this lack of adequate sexuality education for young people leads many of them to search for information elsewhere and pornography is highlighted as one of the most common sources of sexuality education for young people. The prevalence of young people accessing pornography is quite high; in Britain, research has shown that

94% (out of 1,000 included) of young people (aged: 11-16 years) had watched online pornography by the age of 14 years (Martellozzo et al., 2016). A more recent study (Massey et al., 2020) demonstrated that 80% of young people (by the age of 19 years old) in the UK had viewed pornography. The problematic use of pornography by young people has additionally been reported by Goldstein et al. (2020). Viewing pornography and sexually explicit material may affect young people's sexual attitudes and behaviours (Massey et al., 2020). Changes in the sexual practices of young people (e.g., an increase in anal sex and casual attitudes to consent), as well as links between porn use and sexual coercion, have been attributed to viewing pornography (Bernstein et al., 2022; Wright et al., 2015). Educational institutions should therefore offer essential support to young people regarding this topic (Massey et al., 2020). Utilising pornography as a sexuality education resource might even be more problematic for ND individuals (this topic will be elaborated on in the II.2.2.1. section). This use of pornography as an alternative sexuality education resource by young people only accentuates the urgent necessity for improving the current sexuality education to make it beneficial for young people thus highlighting the importance of including young people's voices on this topic.

### *II.2.2.1. Concerns Raised Related to Sexuality Education for Neurodivergent Young People*

Given the challenges that are inherent in neurodevelopmental conditions, as reported in Chapter I, especially in terms of social interactions, the lack of appropriate sexuality education in schools and colleges and the consequent struggles with navigating romantic relationships reported by NT young people (this aspect will be discussed in Section II.3.) raise concerns about the adequacy of appropriate guidance on these topics for ND individuals. Access to sexuality education for people with disabilities (ASD and ADHD are registered disabilities as explained in Chapter I) is, however, a moral principle inherent in the human rights (Davies & Kenneally, 2020; United Nations General Assembly, 2007). Yet, sexuality education for ND individuals is often ignored in schools/colleges (Davis et al., 2021). This again may be explained by the argument that preventing young people from knowledge related to sexuality helps them remain

'innocent'. In the case of young people with disabilities, there is additionally an existing misconception that they are asexual and thus need to be protected (Michielsen & Brockshmidt, 2021). This consequently leads to a societal belief that this group of the population does not require, nor it is adequate to provide them with, sexuality education (Dabner & Newman-Clarke, 2021). Nonetheless, research that included neurodivergent young people's narratives, demonstrated that, similar to their NT peers, they tend to desire romantic relationships in their lives and thus they are interested in sexuality (e.g., Cheak-Zamora et al., 2019; Bush, 2019) (Chapter III will evaluate this topic in detail).

In relation to autism, while a NT young person, apart from receiving sexuality education in schools/colleges, learns about sexuality via social avenues (e.g., their family, friends) (Brown-Lavoie et al., 2014); an autistic young person may be at a distinct disadvantage, since not only do they find it challenging to learn from unstructured social settings, but they also struggle to create and maintain social contacts (Girardi et al., 2020). Inadequate understanding of social skills and a lack of adequate sexuality education provided to autistic individuals may additionally have serious adverse consequences related to sexual offences (Griffiths et al., 2013; Kellaher, 2015; MacKenzie, 2018; Payne et al., 2020). Research indicates that some autistic individuals may exhibit inappropriate sexual behaviours such as, stalking, masturbating in a public place and paraphilia (e.g., Holmes et al., 2016b; Katz & Zemishlany, 2006; Ray et al., 2004). Notably, in some autistic individuals, however, the impaired ability to understand social cues and appropriately interpret others' negative reactions to their sexual advances may provide the context of vulnerability to exhibiting behaviour that is sexually offensive (e.g., Freckelton & List, 2009; Murrie et al., 2002; Stokes et al., 2007). To illustrate, Ray et al. (2004) portrayed a case study of a 16-year-old autistic adolescent, who was involved in sexually aggressive and coercive behaviours towards children; he would massage or tickle the victims' feet. The adolescent said that, despite his attraction towards girls his age, his social awkwardness made him feel more comfortable with younger girls. His ASD characteristics (i.e., fixations, social impairments) increased his risk of engaging in sexually offensive behaviours. An autistic person may find it difficult to distinguish between appropriate and inappropriate sexual behaviours, which, as outlined above, may have legal consequences. The lack of effective sexuality education,

particularly on channels on how to appropriately express sexual desires may only increase the risk of displaying these potentially unsafe behaviours (Girardi et al., 2020; MacKenzie, 2018).

The lack of social connection also contributes to inappropriate sexual behaviours exhibited by some autistic individuals, which, in turn, results in the persisting alienation of these individuals from society, inducing further flaws in sexual socialisation (MacKenzie, 2018; Stanojević et al., 2021). An autistic person, due to their limited knowledge about sexuality, may not recognise and hence does not report abuse, and subsequently may become a victim of sexual abuse or victimisation (Ballan & Freyer, 2017; Brown-Lavoie et al., 2014; McDaniels & Fleming, 2016).

Due to the vulnerabilities highlighted in some autistic individuals, there is an urgent need to recognise the ways to appropriately educate this group of the young population on sexuality and related decision-making to ensure they can, in a safe way, achieve the goals related to their sexuality needs (Pugliese et al., 2020). Research should also focus on establishing sexuality education for autistic young people that would provide a rich variety of topics to help them promote their own capacity for making their own decisions regarding their sexual lives (Plexousakis et al., 2020). Autistic persons also tend to show a significant variation in sexual orientation, lower rates of heterosexuality and higher rates of homosexuality, bisexuality, and asexuality when compared to NT people (George & Stokes, 2018). A lack of general knowledge about same-sex attraction may cause feelings of confusion and vulnerability in some autistic individuals (Girardi et al., 2020). Therefore, ensuring that inclusive sexuality education is provided to autistic young people is essential. Importantly, to assure that sexuality education is adequate for the autistic population (hence it is for autistic young people and created by autistic young people), it is essential that autistic young people are at the centre of this discussion and their needs and rights are recognised and acknowledged in the development of appropriate sexuality education (Bovill et al., 2023).

Additionally, in terms of autistic individuals, sexuality education ought not to be provided only when an autistic young individual presents with problematic sexual conduct, but it ought to be provided to autistic young people as the main subject in their social skills training, to minimise the probability of them facing challenges in their

romantic and sexual relationships (Plexousakis et al., 2021). Apart from providing theoretical knowledge, the curriculum could also be enhanced by the use of technology in teaching (e.g., video vignettes, social stories), which could depict realistic scenarios followed by discussions of appropriate behaviours in response to those scenarios (Plexousakis et al, 2021; Rothman et al., 2020; Stankova & Trajkovski, 2020). Additionally, some teachers in Japan reported benefits from online learning about sexuality such as giving students greater anonymity and therefore better space for asking questions than face-to-face teaching (Sato et al., 2021). Indeed, technology-based sexuality education (e-sexual health as proposed by the European Society for Sexual Medicine [Kirana et al., 2020]) might increase educational opportunities and can be an effective, low-cost, easily accessible, and available means of providing sexuality information for young people (Kirana et al., 2020). Technology-based programmes, however, are in the early stages of designs and assessments, and thus it is difficult to evaluate their effectiveness, especially regarding the impacts of peer interaction, since the outcomes of such designs often diverge from existing theoretical models (Martin et al., 2020 [in this systematic review, 62% of included studies were conducted in the US; 7% came from the UK]). Hirvonen et al. (2021 [UK]) additionally argue that employing, for example, conversations via interactive technologies may reduce the potential awkwardness of in-person conversations with peers among young people.

A recent study conducted in the UK (Bloor et al., 2022) investigated teachers' perspectives of sexuality education for autistic students and concluded that the current system of sexuality education is primarily adapted for NT young people and hence it is not adequate for autistic learners. Teachers reported the need for appropriate training for teaching staff. They also voiced the need to provide appropriate resources (e.g., realistic pictures as opposed to cartoon pictures of, for instance, genitalia), as well as tailoring sexuality education to the needs of autistic students.

An exploration of sexuality education in young individuals with ADHD is absent from the current body of research. Negative outcomes of romantic relationships in many individuals with ADHD, which are highlighted in the next section (II.3.2.) and in more detail in Chapter III, may, however, indicate that they lack the appropriate knowledge and skills regarding sexuality including how to build and maintain healthy romantic

relationships. Similarly, an investigation into the topic in individuals with a dual diagnosis is also absent from the current body of knowledge. However, due to the possibility of even increased difficulties with creating and maintaining romantic relationship in the population with a dual diagnosis, as indicated in Chapter I, it might be essential to understand what sexuality education these young people receive and whether it is useful for them (or not) in terms of giving them the appropriate tools to know how to navigate romantic relationships. Investigating sexuality education in the populations with ADHD and ASD co-occurring with ADHD is, therefore, imperative.

This lack of adequate sexuality education may lead some ND young people (likewise their NT peers as discussed in section II.2.2 ) to search for other avenues of learning; pornography is one of the most common alternative ways of sexuality information for many young people including ND ones. Research shows that pornography might lead some autistic individuals to commit (often unintentionally) sexual offences, such as assembling or/and viewing 'Indecent images of children' (IIOC) (Allely & Dublin, 2018; Mahoney, 2009). Some autistic individuals, due to the tendency to collect things in general, and having restricted capabilities to read other people's emotions and mental state, may have difficulties with recognising the age of the actors in pornographic materials and, thus, they are at a higher risk of watching or assembling (without even opening the files) IIOC (Mesibov & Sreckovic, 2017). Well-structured sexuality education for autistic people, which would comprise essential information regarding sexual conduct, including the aspect of IIOC to help autistic people distinguish between right and wrong behaviours might therefore be critical (Mahoney, 2009).

The next section will describe the existing sexuality education interventions and their usefulness in improving autistic young people's knowledge related to sexuality and romantic relationships. This may suggest that adequately tailored sexuality education may indeed be very beneficial for this group of the population. This again highlights the necessity of tailoring sexuality education for ND individuals.

## *II.2.2.1.1. Applied Interventions to Teach Sexuality Education to Autistic Young People*

The current literature also describes cases of applied sexuality education intervention to autistic young people. For example, a recent pilot study (Crehan et al., 2023) used a sexuality education programme called "Tackling Teenage Training", which was specifically designed for autistic young people. The programme lasted 18 weeks and it included aspects related to knowledge, social interaction (connectedness and reciprocity), sexual behaviours, and boundaries. The conclusion was that participants enjoyed it and were satisfied with the outcome. Participants' feedback indicated that they would like more topics including LGBTQ+ sexuality, and online dating, and less emphasis on physical sexuality in future learning. Another intervention which targeted autistic adolescents was conducted by Pask et al. (2016). The adolescents took part in a three-module (Basic Hygiene, Basic Biological Sexuality Education, and Relationship Development) curriculum called "Healthy Relationships and Autism" (Sutton & Wesley Spectrum Services, 2013). The first two modules comprised six sessions each, the first one covering basic hygiene (e.g., showering, bedroom organisation, privacy) and the second one covering basic biological sexuality education (e.g., puberty, genitalia, intercourse, pregnancy, childbirth). The final module comprised 23 sessions and covered topics related to relationships, including, for example, distinguishing between friends, acquaintances and bullies, private talk, small talk, showing affection in an appropriate way, dating, and social media safety. The results showed that the intervention was successful in promoting knowledge about healthy relationships in autistic young individuals.

Plexousakis et al.'s (2021 [US]) and Stankova and Trajkovski's (2020 [US]) interventions also targeted autistic young people and were based on social stories. Social stories are personalised stories, which portray other people's perspectives of emotions, thoughts, and behaviours through interpretation and explanation of signs in social situations and offer instructions on how to adequately respond to these signs (Stankova & Trajkovski, 2021). Plexousakis et al.'s (2020) programme was a case study intervention, which lasted 36 sessions (one session per week). It was divided into three phases: phase

1 (body concepts, social rules and privacy, issues regarding abuse), phase 2 (body parts and functions, personal hygiene, discriminative learning/self- protection, relationships [friendship to sexual intimacy]), and phase 3 (checking the participant's knowledge). The intervention was found to be successful, and facilitated the young person's socialinterpersonal skills, intimacy skills, and sexual development in general. Stankova and Trajkovski's (2021) programme provided individual sessions and lasted 6 months (45 min per session). Adolescent 1 (male) received 24 individual sessions, and Adolescent 2 (female) and 3 (male) received 15 individual sessions each. The results of this intervention demonstrated that adolescents expanded their knowledge regarding various aspects of sexuality (e.g., reproduction and intimate parts of the body, puberty, contraception, and sexual relation); however, their sexual behaviours remained unchanged. Stankova and Trajkovski (2020) concluded that the time frame of six months might have been insufficient for participants to start showing improvements in their behaviours and they recommended that this type of intervention requires further evaluation in terms of its practicality and efficacy as a form of sexuality education for autistic individuals.

Corona et al. (2016) enrolled autistic adolescents and their parents in a programme designed to provide education on sexuality and relationships. The programme lasted over three months (six two-hour sessions) for both parents and adolescents. The topics covered relationships and dating (e.g., appropriate and inappropriate behaviours, personal safety, legal issues, electronic communication), puberty and personal hygiene. The sessions for parents additionally covered strategies for supporting young people in sexuality education. After completion of the programme, participants completed questionnaires regarding their sexuality knowledge and programme satisfaction. The results demonstrated that many parents believed their children were interested in romantic relationships; however, they lacked the appropriate skills to build them. Although the majority of the adolescents in this study received prior sexuality education in their schools, their knowledge pertaining to specific topics (e.g., birth control, STDs and sexual hygiene behaviours) was inadequate. Despite the overall parent-rate concerns about their children's broad sexuality knowledge, these concerns were significantly reduced after the completion of the programme. The analysis of

specific topics demonstrated that parents reported more concerns about specific issues, for example, STDs. Overall, however, the programme was successful; parents reported that completing it helped them discuss more topics about sexuality with their children.

Another parent-autistic child intervention (Pugliese et al., 2020) assessed the feasibility, acceptability, and preliminary efficacy of the Supporting Teens with Autism on Relationships programme. Participants were autistic young individuals with ASD and their parents. Participants were divided into Supporting Teens with Autism on Relationships (STAR) (which subsequently was divided into two groups: facilitator-led [FL] or a selfguided [SG] group) and attentional control (AC) (drug and alcohol education programme) group; it was a 12-week intervention. The STAR programme comprised two elements: a parent programme "Charting the Course", which was designed to support parents of autistic young people (aged 9 to 18 years) in teaching their children the skills needed to navigate relationships and sexuality; and an interactive computer game and phone application "Boardwalk Adventure", which was designed to complement the parent's programme to help their children to practice some of the more abstract concepts in the curriculum such as creating relationships, dating, puberty and personal hygiene. The findings showed that parent-mediated sexuality education for autistic young individuals may be successfully delivered, and useful and address crucial topics related to sexuality and relationships.

The present, albeit limited, evidence clearly suggests that sexuality education that would be specifically tailored to ND young people might be essential. Increasing the currently restricted understanding of ND young people's perspectives on their sexuality education may help obtain greater knowledge about what types of sexuality education would be most beneficial for this population to help them improve their skills at building and maintaining (healthy) romantic relationships. Notably, it appears that there is no specific sexuality education intervention for autistic young people that would be designed in the UK. However, to be able to design such a programme in the UK, the information about the existing sexuality education, its usefulness or lack thereof and suggestions for improvement are necessary.

The following section will briefly describe romantic relationship experiences in young people (NT and ND) (Chapter III will explore this subject in detail). Given that

romantic relationships are a part of teaching included in the curriculum of sexuality education for young people (see DfE, 2019), it is essential to highlight the interrelation between these two topics. That means that the outcome of young people's romantic relationships may help the understanding of the usefulness (or lack thereof) of the sexuality education they receive. This again will emphasise the need for further discussion related to this important topic.

#### **II.3. Romantic Relationships**

#### II.3.1. Romantic Relationships in Neurotypical Young People

Romantic relationships are vital aspects of one's life and they constitute a significant proportion of a young person's development and an adult's functioning (Allen et al., 2020; Connolly & McIsaac, 2009; Huuki et al., 2022). Good quality relationships contribute to important aspects of development including shaping one's identity, promoting romantic relationships in adulthood, as well as decreasing the levels of psychopathy in adulthood (Allen et al., 2020; Horn et al., 2013). Contrarily, low-quality relationships have been associated with alcohol or drug addictions, the experience of abusive romantic relationships and academic failures (Klencakova et al., 2023; Woodward et al., 2002; Zimmer-Gembeck et al., 2004).

Creating and maintaining healthy romantic relationships in young adulthood is an important developmental task (Singh & Thomas, 2022). Although some young people may engage in steady and exclusive romantic relationships, which involve highly intense intimacy and commitment (Collins, 2003; Freeman et al., 2023), many fluctuate between relationships or casual sexual romances (Alvarez et al., 2021 [Portugal]; Freeman et al., 2023; Massey et al., 2020 [UK]). The self-development imperative is a concept describing prioritising specific life aspects such as getting an education, focusing on a career, and being financially independent at the cost of creating stable romantic relationships and forming a family (Alvarez et al., 2021). Such an approach allows young people to allocate their resources to achieve their life goals (education and careers) while expressing their

sexuality without compromising their independence (Alvarez et al., 2021). In line with this, the casual attitude to romance appears to be a common trend amongst young people. Young people's relationships may start and end repeatedly; this is because young people need to learn to know one another at a much deeper level than just being in casual relationships, as well as they need to learn to resolve problems that occur within the relationships (Boisvert et al., 2023; Tuval-Mashiac & Shulman, 2006). Desirable and undesirable romantic partners may promote learning in young people about the preference of partners for future romantic relationships (Jamison & Sanner, 2021). Young people, however, should be encouraged to recognise their motivation for casual relationships and reflect upon their past hook-up experiences and this may help them pave their way for thoughtful decisions about future romantic relationships (Snapp et al., 2015). Nevertheless, sustaining satisfying long-term, intimate relationships in adulthood requires a variety of skills including communication skills, maturity in managing conflicts, sustaining commitments and comfort with one's intimacy (Blumenstock et al., 2020; Lawrence et al., 2008). Romantic relationships, therefore, have the potential to influence young people positively or negatively (Kanter et al., 2021); hence sexuality education in this respect might be important.

Nonetheless, the world of romance in young people appears quite challenging; studies on romantic relationships across various countries including the UK highlight that many young people experience sexual and psychological violence in their pursuit of romantic relationships (Herbert et al., 2023 [UK]; Krahé et al., 2015 [Austria, Belgium, Cyprus, Greece, Lithuania, the Netherlands, Poland, Portugal, Slovakia and Spain]; Mumford et al., 2023 [US]; Toplu-Demirtaş et al., 2022 [Turkey]). Failures in romantic experiences may lead to emotional distress and negative thought processes (Wrape et al., 2016). Such negative experiences may lead some young people to developing mental health conditions including anxiety, depression, low self-esteem, and decreased wellbeing (Gilbert & Sifers, 2011; Gómez-López, 2019). Despite the negative experiences that young people encounter while navigating their romantic relationships, many of them strive for long-term relationships in their future (Youmans et al., 2022).

The challenges that many NT young people report might be the consequences of receiving inadequate sexuality education since, as reported in the previous section, many

young people describe the sexuality education they received as insufficient. Sexuality education and romantic relationships are therefore interwoven. Understanding young people's perspectives on both phenomena might be important to help establish best ways of supporting young people with their romantic relationships. Providing education/interventions when young people are still learning and building their skills through early interactions with their intimate partners is imperative to help them inform their choices that lead to healthy romantic relationship experiences (Mumford et al., 2023). These interventions, however, should aim to avoid restrictive binary gender definitions and be inclusive of young people of different genders (Mumford et al., 2023).

According to a recent review of healthy relationship education programmes for young people conducted in the UK (Benham-Clarke et al., 2022), the majority of the existing programmes designed to promote young people's relationships were developed in the US; there was only one found that was developed in the UK. This indicates that despite the formal recommendations that romantic relationships are an essential part of sexuality education in England (DfE, 2019), there is still a lack of appropriate formal programmes developed in the UK setting to help young people develop the necessary skills to build and maintain healthy romantic relationships (Benham-Clarke et al., 2022).

#### II.3.2. Romantic Relationships in Neurodivergent Young People

Autistic young people go through the typical stages of the sexual development and have, similar to their NT peers, desires related to sexuality and romantic relationships (Dewinter et al., 2013; Kellaher, 2015). Autistic children, however, face considerable challenges during sexual development that may result in problematic sexual behaviours (Dekker et al., 2015; Hellemans et al., 2007; Stokes et al., 2007) and which should be managed efficiently for the child's well-being, as well as that of other individuals (e.g., family, peers) with whom the child comes into contact (Clionsky & N'Zi, 2019). Much of the previous research on sexual development in autistic young people focused on problematic aspects of this development and used primarily parental reports. For instance, some studies (e.g., Dekker et al., 2014, Dewinter et al., 2013, Hellemans et

al., 2007; Stokes & Kaur, 2005) demonstrated that some autistic individuals display excessive thinking about sex, stalking behaviours, masturbating in public places and may experience contact with the criminal justice system due to sexual offences experienced as either being victims or perpetrators. For example, a qualitative study conducted by Payne at al. (2020) explored reasons for sexual offences in a sample of autistic males (Mean age: 29.56 years). Participants reported having difficulties with social interactions including lack of knowledge of how to communicate with others (e.g., face-to-face interactions), how to approach someone they find attractive to initiate a friendship or romantic relationship. These aspects were contributory to the sexual offences those offenders committed. Indeed, difficulties with establishing adult, satisfactory, sexual relationships encountered by some autistic individuals have been posited to contribute to the increased risk of sexual offending in the autistic population (Allely & Creaby-Attwood, 2016).

Some previous research (Dewinter et al., 2014; Gilmour et al., 2012; Hénault, 2006; Stokes et al., 2007) used self-reports of autistic young people to explore their psychosocial functioning. The results of those studies indicated that many autistic young people show similar interests in romantic relationships to their NT peers. Those studies, however, focused predominantly on sexual behaviours rather than other aspects of psychosexual development in autistic young people including self-perceived sexuality knowledge and competence. The prior research, nevertheless, started to indicate that, in general, autistic individuals' desires for intimate relationships and attitudes towards sexuality do not differ from the needs of NT individuals. This acknowledgement has led to the current widely recognised notion that sexuality and romantic relationships are essential aspects of life for many autistic people (e.g., Bennett et al., 2018; Kellaher, 2015; Sala et al., 2020). Nonetheless, a significant body of research (e.g., Dewinter et al., 2016a, b, 2015; Engström et al., 2003; Hancock et al., 2020; Joyal et al., 2021) has been consistently highlighting that many autistic individuals encounter greater challenges with building and maintaining their romantic relationships than their NT peers.

In terms of individuals with ADHD, research (Hosain et al., 2012; Halkett & Hinshaw, 2021; Overbey et al., 2011; Rokeach & Wiener, 2018) has shown that many people with ADHD encounter greater difficulties forming and maintaining their romantic

relationships than their NT counterparts. Many young people with ADHD, due to its characteristics, experience greater conflicts with their families and peers (Wehmeier et al., 2010). Subsequently, those conflicts influence their romantic relationships' development (Seiffge-Krenke, 2003). Young individuals with ADHD tend to exhibit more common negative conflict resolution patterns such as verbal aggression and violence towards their romantic partners (Canu & Carlson, 2007; Overbey et al., 2011; VanderDrift et al., 2019; Wymbs et al., 2012) when compared to their peers without ADHD. Previous literature (Guendelman et al., 2016; Huggins et al., 2012; White & Buehler, 2012; Winters et al., 2008) has also highlighted that young people with ADHD tend to experience greater RSBs including earlier initiation of sexual activities, unwanted pregnancies, STDs, when compared to their peers without ADHD. A recent study (Wallin et al., 2022) highlighted that some females with ADHD feel differently than other people (without ADHD), not accepted and judged, and these feelings consequently influence their actions resulting in having many casual sexual experiences and struggles with romantic relationships.

Furthermore, some spouses (without ADHD) reported having challenging partnerships with their spouses with ADHD (Öncü & Kişlak, 2022; Robin & Payson, 2002). The spouses with ADHD did not contribute equally to overall duties within the family (household tasks, organisations, financial decisions), neither did they provide emotional support to their spouses without ADHD (Robin & Payson, 2002). Babinski et al. (2011) additionally indicated that heterosexual men with ADHD had more romantic relationship experiences than their counterparts without ADHD, contrarily, females with ADHD had fewer romantic relationship experiences than females without ADHD. The possible explanations for this pattern have not yet been formulated. Robin and Payson (2002), however, reported that males without ADHD rated their female partners with ADHD as negatively impacting their relationships due to exhibiting more behaviours related to their condition, than females without ADHD rated their male partners with ADHD. Bruner et al. (2015) found that college students with greater levels of hyperactivity-impulsivity and inattentiveness reported higher levels of hostile conflict resolutions and consequently a lower quality of romantic relationships than their peers without ADHD characteristics.

Mattard-Labrecque et al. (2013) showed that children with a dual diagnosis (ASD co-occurring with ADHD) exhibit lower adaptive behaviours than those with a single condition of ASD or ADHD. Adaptive behaviours are defined as everyday skills that are essential to one's functioning in society and they include the following domains: conceptual (communication and academic skills), social (interpersonal and social competence) and practical (independent, daily living skills) (Luckasson et al., 2002). Adaptive skills, in turn, are essential abilities in forming and maintaining romantic relationships (Kansky et al., 2019). There is also a possibility that the presence of ADHD characteristics may further exacerbate the characteristics of ASD (Yerys et al., 2009), which consequently may intensify the impairments in the executive functioning of individuals with a dual diagnosis. The importance of executive functioning in interpersonal interactions has been reported in the literature (Berenguer Forner et al., 2017). Furthermore, children with a dual diagnosis have been reported to show increased rates of behavioural and conduct symptoms, mood disorders and other psychopathologies than children with a single condition (ASD or ADHD) (Chen et al., 2015; Jang et al., 2013). Individuals with a dual diagnosis display more severe impairments in executive and social processing including greater impairments in reading other people's feelings and emotions, difficulties with communication, emotions and behavioural problems related to depression, anxiety when compared to individuals with a single diagnosis of ASD or ADHD (Llianes et al., 2018; Pallanti & Salerno, 2020; Rao & Landa, 2014; Rosello et al., 2022; Thomas et al., 2018). It might therefore be hypothesised that individuals with a dual diagnosis might encounter even greater challenges with forming and maintaining their romantic relationships when compared to their counterparts with only one condition (ASD or ADHD). To date, there has been no research carried out examining romantic relationship experiences in young people with a dual diagnosis of ASD and ADHD.

Overall, the literature on romantic relationships in ND young people points to an increased vulnerability of this group to experiencing negative outcomes of romantic relationships including factors such as the lack of understanding of how to build and maintain intimate relationships, experiencing lower satisfaction in the relationships (e.g., Dewinter et al., 2016a,b, 2015; Engström et al., 2003; Hancock et al., 2020), maladaptive

conflict resolution (e.g., VanderDrift et al., 2019; Wymbs et al., 2012), and inappropriate sexual behaviours (e.g., Holmes et al., 2016b). Given that romantic relationship success is perceived by many as an important part of an adult's life, and that the existing research consistently highlights that ND individuals (autistic and with ADHD) experience greater challenges within their romantic relationships when compared to their NT counterparts (e.g., Halkett & Hinshaw, 2021; Hancock et al., 2020; Hosain et al., 2012; Joyal et al., 2021), as well as that children with a dual diagnosis have been found to display even greater impairments with adaptive functioning that their peers with a single condition (ASD or ADHD) (Mattard-Labrecque et al., 2013), an effort should be made to develop a greater understanding of romantic relationship experiences in ND young people in order to help them increase skills essential for navigating romantic relationships. Since appropriate sexuality education may promote the development of such skills, ensuring a good quality of sexuality education for these groups of young people might, therefore, be crucial (Pugliese et al., 2020).

The next section (II.4) will discuss the importance of parents and educators in sexuality education for young people. Given that throughout history, as emphasised in the previous sections, sexuality education was created by adults hence its primary focus was on the biological aspects of sexuality (i.e., the need to reduce RSBs in young people and help them remain 'innocent'), as opposed to promoting sexuality education in a more positive light (according to young people's voices), it is vital to highlight the prevailing influence of adults on shaping the current sexuality education for young people.

# II.4. The Importance of Adults in Supporting Young People's Development of Attitudes Toward Romantic Relationships

Parental role in sexuality education for their children is essential. Parent-child interactions are important for the child to learn how to create healthy romantic relationships by applying strategies to manage conflicts in their intimate relationships (Paat & Markham, 2019). The child learns from observing their parents' interactions in

conflict-management. The child also learns from parenting styles: if they are harsh or critical, the child may learn coercive behaviours (Garthe et al., 2019). Research indicates that 30%-45% of young people report experiencing dating violence (Garthe et al., 2018; Miller et al., 2007). Garthe et al. (2019 [US]) investigated association between family dynamics and the adolescent child's exposure to risk factors for dating violence. Many participants were from economically disadvantaged communities, and 66% were males. The outcomes showed that the adolescents (23%) who belonged to the so-called poor family context group, which was characterised by low levels of parental monitoring, deviant family beliefs, and perceived messages of supporting fighting in relationship conflicts, were at a significantly higher risk for dating violence perpetration and victimisation. The adolescents (44%), who belonged to the so-called positive family context group, characterised by high levels of positive family interactions, parental monitoring, and a combination of perceived parental encouragement for fighting and non-violence conflict resolutions, showed steady protection from experiencing violence in romantic relationships. The adolescents (33%), who belonged to the consistent messages family group, which was characterised by average levels of perceived family interactions and parental monitoring, and a strong, persistent parental support for nonviolence conflict resolutions, were protected against experiencing violence in their romantic relationships. These findings demonstrated that consistent messages of nonviolent conflict resolution from parents are protective against children's negative experiences in romantic relationships. Similar findings were reported in previous research (Garthe et al., 2018 [US]). Contrarily, poor parent-child relationship quality is associated with the child's greater dating violence experiences (Chen & Foshee, 2015 [US]). The parent-child interactions are therefore vital as through them, the young person's own intimate relationships are conditioned. These early learnt patterns will be imitated in the child's future romantic relationship interactions (Mumford et al., 2023 [US]). Effective parent-child sexuality discussions have additionally a positive influence on young people's efficacy to engage in health-promotive behaviours including the use of condoms, the ability to resist when pressured to have sexual activity, prevention of STDs, as well as the ability and knowledge to access sexual health promoting services (Flores et al., 2020).

Parents indeed play a pivotal role in facilitating positive sexuality discussions and consequently positive outcomes of their children's intimate relationships (Davis et al., 2021 [Australia]; Flores et al., 2019 [US]; Mullis et al., 2021 [US]). Parent-child sexuality discussions are even more challenging for parents who have children with disabilities (André et al., 2020). However, parents are crucial source of sexuality information for children with disabilities (André et al., 2020). Caregivers of autistic young people report challenges with conducting sex-related conversations with their children due to a lack of knowledge and appropriate skills to do so (André et al., 2020; Kenny et al., 2020 [US]). The literature often emphasises the importance of tailoring sexuality education to individual needs, and the essential role of caregivers in delivering sexuality education to autistic children (Kenny et al., 2021 [US]; Sala et al., 2019 [Australia]). Providing information on parent-child sexuality communication specific to young people with ADHD and a dual diagnosis appears to be absent from the current body of knowledge. However, based on the difficulties that many young people with ADHD encounter within their romantic relationships (as earlier reported in this chapter), it may be speculated that parental support in this context might be vital for these groups of young people.

Despite parental importance in sexuality education for their children, research shows that some parents voice objections to sexuality education, supporting their objections with slogans such as: *'Math, Not Masturbation,' 'Let Kids Be Kids,' and 'My Child, My Choice.'* (Bialystok, 2018, p. 11). Additionally, some parents might delay discussions related to sexuality with their children for fear that they may unnecessarily put some sex-related ideas into their children's heads, at the same time, through such discussions, giving them tacit approval to explore sexual activities (Ashcraft et al., 2017). Some parents consequently prefer to wait with such discussions until their child is 'ready' (Ashcraft et al., 2017; Kenny et al., 2021). This, however, again may be associated with the adults' perceived need to help their children remain 'innocent' as reported in the previous section.

Furthermore, in the UK, the most prevailing objections include providing inclusive LGBTQ+ sexuality education. Nash and Browne (2021) refer to this parental opposition as "hetero-activism". That opposition comes from the British Islamic communities' fear that their children may fail to appreciate Islamic ideology (Sanjakdar, 2022). Some parents

support their opposition to providing liberal sexuality education arguing that they have a right to decide what type of sexuality education their children should receive. Parents are essential sexuality educators for their children and their voices on this topic are indeed essential (Pugliese et al., 2020). As discussed earlier in this chapter, these discourses may again be linked with the 'moral panic' and parental need to protect their innocent children from being corrupted once exposed to knowledge related to some aspects of sexuality.

Parents may therefore benefit with support related to this topic. Health professionals should support parents' capacity to help them address the issues related to their children's sexuality education (Flores et al., 2019). Clinicians may also be important in encouraging parents to discuss uncomfortable, albeit vital, topics with their autistic children, even if parents may think they are irrelevant to their child (Pugliese et al., 2020). Due to the sensitivity of the topics, cultural aspects, values and beliefs should also be considered, thus sexuality education should be developed with families (Pugliese et al., 2020). Although parents report high levels of trust in educational systems and educators, due to the lack of school-parent collaboration they have no knowledge of what their children learn in schools in terms of sexuality education (Davis et al., 2021).

Teachers, as the providers of sexuality education in schools, also play central roles in shaping young people's attitudes towards their sexuality and romantic relationships (Plaza-del-Pino et al., 2021). Young children should be exposed to cognitively challenging experiences; therefore, they should be engaged in analysing and constructing their own knowledge and creating positive relationship skills, which they can apply in their future relationship experiences (Goldman & Coleman, 2013). Educators should ensure that the sexuality education programmes include topics such as STDs, gender manifestation and the diversity of sexual orientation (Pugliese et al., 2020).

The existing evidence (e.g., Goldman & Coleman, 2013; Plaza-del-Pino et al., 2021), however, highlights the inadequate or negative student-teacher experiences regarding sexuality education. Further research is essential to better understand adult-child sexuality-related communication from the perspectives of young people's and caregivers', as well as young people's and teachers' perspectives on sexuality education in English schools/colleges.

This section highlighted the important role of adults in shaping young people's knowledge and attitudes related to sexuality and romantic relationships. Furthermore, adults, may have an even greater impact on ND young people's learning related to the topic. This emphasises the importance of including adults (parents and educators) in research exploring sexuality education in young people.

#### **II.5.** Conclusion

This chapter introduced the previous and current debates related to sexuality education and romantic relationships in young people (NT and ND). It demonstrated that sexuality education in the UK has been shaped through the prism of negative cultural perceptions regarding the topic (sexual panic scripts, protection of young people's 'innocence'), which subsequently led to the destabilisation of sexuality education. It has also highlighted that the current sexuality education is still strongly shaped via similar discourses and young people's voices on the topic appear to be ignored. Additionally, it demonstrated that adults' voices on sexuality education for young people have been dominant and they still influence the practical content of sexuality education for young people (which may differ from the theoretical framework as highlighted by the DfE [2019]). This chapter additionally showed that the lack of adequate sexuality education for young people has a detrimental impact on their romantic relationship experiences; this especially affects the ND groups who, due to their difficulties with social interactions, tend not to learn about sexuality and romantic relationships from their social circles (as they NT counterparts do), and hence display even less understanding related to the topic than their NT peers. Importantly, the review of the literature included in this chapter, highlighted that romantic relationships and sexuality education are under-researched topics in the ND population.

Chapter III will thus provide a systematic literature review on romantic relationship experiences and sexuality education in ND young people (autistic, with ADHD, and with ASD co-occurring with ADHD) from the perspectives of young people, educational professionals, and caregivers. This systematic review is important to ensure

that all the relevant information on this topic is included in this thesis. This knowledge will also be essential for the design of the empirical studies of this project (details of the design will be discussed in Chapter IV). Importantly, the understanding of the topic obtained from the systematic review will help develop research objectives and questions that will be investigated in the empirical studies of this project.

### **Chapter III: Study 1: Systematic Literature Review**

Systematic Literature Review: Exploring Experience of Romantic Relationships and Sexuality Education in Adolescents and Young People with ASD, ADHD, and ASD cooccurring with ADHD: Perspectives from Caregivers, Educational Professionals and Young People

#### III.1. Chapter Overview

This chapter provides a systematic literature review on romantic relationship experiences and sexuality education in ND young people (autistic, with ADHD, and with ASD co-occurring with ADHD) from the perspectives of young people, educators, and caregivers. This chapter also provides critical appraisal of the literature. The results will help to recognise the current gaps in the existing literature on the topic and consequently shape the empirical studies and research questions for these studies, which will also be outlined in this chapter.

### III.2. Introduction

The aim of this systematic literature review is to provide an overview of the current research (2015-2022) conducted on romantic relationship and sexuality education in ND young people (autistic, with ADHD, and ASD co-occurring with ADHD; age groups maximum 25 years old). The information provided in Chapter I, highlighted that there is very limited research on the topic in the autistic population and the population with ADHD. It appears that the topic in the population with a dual diagnosis is absent from the current body of knowledge. However, a scoping review of the literature that was conducted in Chapter II, might have not found all the relevant articles on the topic and therefore it is essential to conduct a more rigorous search of the literature.

This systematic search will be carried out on articles published from the year 2015. The reason for this is to ensure the most up-to-date data on the topic and the inclusion of first-person voices. Earlier research conducted on sexuality in the autistic population provided proxy reports and theories about asexuality in autistic people were prominent. This consequently resulted in discussions about the legitimacy of sexuality education for this group of the populace (Sala et al., 2020). More recent research (e.g., Dewinter et al., 2017 as reported in Sala et al., 2020), however, started to portray autistic young people's perspectives of their sexuality and showed that many of them are interested in sexuality and romantic relationships (Sala et al., 2020). Therefore, the inclusion of more recent research (from the year 2015), which also portrays autistic individuals' accounts, will be the focus of this systematic literature review.

The findings from this systematic literature review will help to inform the design and development of the empirical studies of this thesis. Additionally, they will help to illustrate the present available knowledge on the topic and thus help to inform researchers and clinicians what further steps could be taken to help develop key recommendations for policy and practice with regards to sexuality education for ND young people.

### III.3. Method

Six internet-based bibliographic databases were used for this review: SalfordUniversityJournals@Ovid; Journals@Ovid Full Text <March 03, 2022>; APA PsycArticles Full Text; APA PsycExtra <1908 to February 14, 2022>; APA PsycInfo <2002 to February Week 4 2022>; Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations and Daily <2018 to March 03, 2022>. The search was conducted to identify the existing literature on sexuality education and experience of romantic relationships among young people with autism, and young people with ADHD or ASD co-occurring with ADHD. The date limit placed on the conducted search was 2015-4th March 2022. This systematic review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)

guidelines (Liberati et al., 2009, Page et al., 2021). The PRISMA guidelines comprise a four-phase flow diagram and a 27-item checklist, which is regarded as vital to providing clear reporting in a systematic review (Moher et al., 2009; Liberati et al., 2009). The search on all six databases was conducted on the 4th of March 2022.

The search was carried out based on title and the search terms were: "ASD" or "autis\* spectrum disorder\*" or "autis\* spectrum condition\*" or "Asperger\*" or "autis\*" or "High Functioning Autis\*" or "High-functioning autis\*" or "HFA" or "ASC" or "PDD-NOS" or "pervasive developmental disorder\*" or "neurodevelopmental" or "neurodevelopmental disorder\*" or "neurodevelopmental condition\*" or "ADHD" or "attention-deficit/hyperactivity disorder\*" or "attention deficit hyperactivity disorder\*" or "attention deficit disorder\*" or "ADD" AND "inappropriate sexual behavi\*" or "sexual behavi\*" or "stalking" or "paraphil\*" or "sexual harassment" or "sexual victimization" or "sexual victimisation sexual act" or "masturbat\*" or "sexual assault" or "sexual abuse" or "sexual violence" or "psychosexual behavi\*" or "sex\* offen\*" or "pornography" or " indecent assault" or "rape" or "voyeurism" or "sex\* misconduct" or "deviant sex\* behavi\*" or "sex\* behavi\*" or "sexuality" or "sexual health" or "sexual interest" or "sexual relationship\* interest" or "healthy relationship\*" or "romantic relationship\*" or "romantic expectation\*" or "sex\* relationship\*" or "romantic experience\*" or "romantic intimacy" or "sex\* experience\*" or "sexual situation\*" or "sexual attraction" or "dating" or "intimate relationship\*" or "intimacy" or "courtship\*" or "sentimental relationship\*" or "sexuality education" or "sexuality communication" or "sex\* education" or "sex\* knowledge" or "sex\* understanding" or "sexual awareness" or "sexuality and relationship\*" or "roman\*" or "sex\*" or "date" or "romantic relationships in females" or "romantic relationships in males" or "asexuality" or " education on sex\*" or "sexuality in adolescent boys" or "Intimate partner violence" were entered into the six databases.

The search returned 939 articles, of which 307 were duplicates. After removing the duplicates, the search returned 632, however, only 29 articles were relevant to the topic and met all the criteria. Google Scholar searches were additionally carried out in order to reduce the chance that relevant articles were missed because they were not included in the database search. Key search terms (used in the database searches outlined above) were entered into Google Scholar on the 6<sup>th</sup> of March 2022 and two

further articles were identified (Guendelman et al., 2016; VanderDrift et al., 2019). The reference section for relevant articles and reviews was also screened for any potentially relevant articles that may not have been identified in the database searches, however, no additional papers were found.

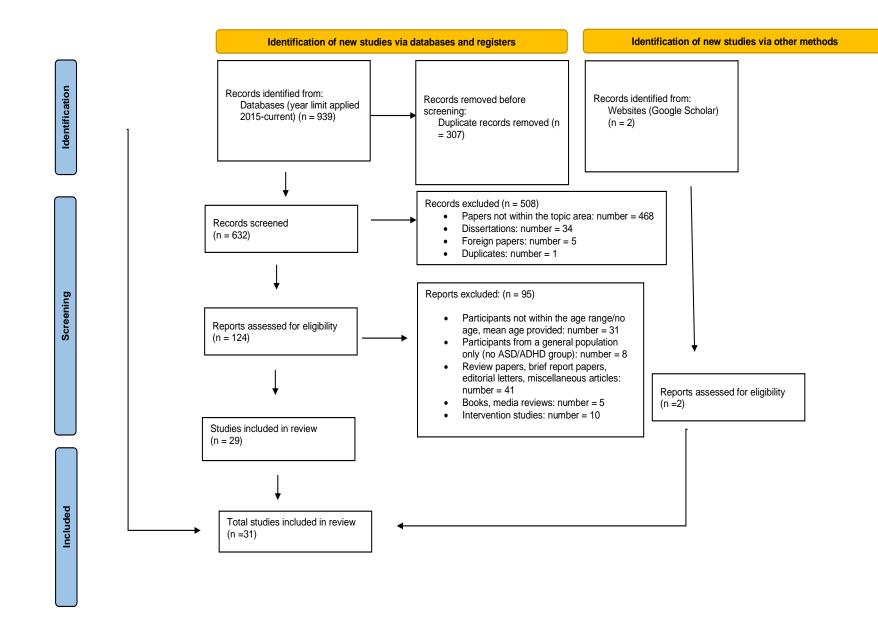
In total, 31 papers met the inclusion criteria for this systematic review. The papers identified for this review were based on the following inclusion and exclusion criteria:

Inclusion criteria:

- Studies that investigated three groups of neurodivergent young people (with ASD, ADHD, and ASD co-occurring with ADHD; the diagnosis of the condition may be formal, selfreported or parent/caregiver reported), and explored the topic of sexuality education and/or experience of romantic relationships; studies that explored that topic from the perspectives of young people, caregivers, and educational professionals.
- Studies that included young people with a mean age maximum of 25 years old. Exclusion criteria:
- 1. Papers which focused on ASD, ADHD, and ASD co-occurring with ADHD with co-occurring other disorders (e.g., Intellectual Disabilities).
- 2. Papers that did not include a participant group with ASD or ADHD.
- 3. Papers that were not peer-reviewed articles.
- 4. Papers that were reviews.
- 5. Article comments.
- 6. Papers not published in English.
- Studies that included participants whose mean age was greater than 25 years old, or which did not provide the mean age of participants, however, included participants within the age range greater than 25 years old.
- 8. Intervention studies.

Figure 2 describes the process for identifying the relevant articles.

**Figure 2.** Flow diagram for systematic literature review (Adapted from Page et al., 2021).



In total, 31 papers met the eligibility criteria and thus were included in this systematic review (see Appendix 1 for studies identified in the review: Table 1 for all qualitative studies on the autistic population, Table 2 for all quantitative studies on the autistic population, and Table 3 for all quantitative studies on the population with ADHD).

The synthesis of the findings was categorised into the following groups:

• Findings from qualitative research in the autistic population (see Table 4).

Autistic young people	Caregivers
Narratives of Their Experiences of	Narratives of Their Autistic
Romantic Relationships	Adolescent and Young Adult Children's
	Romantic Relationship Experiences
Narratives of Their Sexuality	Narratives of the Need for
Knowledge and Sexuality Education	Sexuality Education for Their Autistic
	Adolescent and Young Adult Children

**Table 4:** Qualitative research in the autistic population.

• Findings from quantitative research in the autistic population (see Table 5).

**Table 5:** Quantitative research in the autistic population.

Autistic young people	Caregivers
Self-reports on Their Experiences	Reports of Their Autistic
of Romantic Relationships	Adolescent and Young Adult Children's
	Romantic Relationship Experiences
Self-reports on Their Sexuality	Reports on Sexuality Knowledge
Knowledge and Sexuality Education	and Sexuality Education for Their Autistic
	Adolescent and Young Adult Children

 Findings from quantitative research in the population with ADHD: young people with ADHD; self-reports on their experiences of romantic relationships.

There was no qualitative research identified on the population with ADHD. There were no studies identified on romantic relationship experiences and sexuality education in the population with ADHD co-occurring with ADHD. There was no research found on the topic from the perspectives of educational professionals.

### III.4.1. Study Characteristics: Methods and Participants

### III.4.1.1. Studies on The Autistic Population

The majority of the studies (69%) (Bush, 2019, 2021; Dewinter et al., 2016a,b, 2015; Fernandes et al., 2017; Hancock et al., 2020; Hartmann et al., 2019; Holmes et al., 2016a, 2016b, 2019, 2020a; Joyal et al., 2021; Kenny et al., 2021; Kotzé et al., 2017; May et al., 2017; Pecora et al., 2019; Visser et al., 2017) were conducted quantitatively via questionnaires; only six studies utilised a qualitative design including semi-structured interviews and/or focus groups (Brilhante et al., 2021; Cheak-Zamora et al., 2019; Dewinter et al., 2017b, Mackin et al., 2016; Masoudi et al., 2022; Teti et al., 2019); one was a mixed-methods design (Hannah & Stagg, 2016), and one was a case study (Palermo & Bogaert, 2015). Within these studies, the collective sample comprised 7,721 participants out of which 1,833 were diagnosed with ASD and 877 were caregivers of autistic young people. It is important to note that only one study (May et al., 2017) comprised over 46% of the total sample across all studies. The age range of participants across the studies (self-reports) was 12-39 years, mean age range was 16.67-25.13 years. The autistic male-female ratio across all studies (self-reports) was approximately 46% versus 47% and 7% had other gender identities.

In terms of the diagnosis of the condition, 81% of the identified studies carried out either a screening and/or diagnostic assessment to confirm participants' diagnosis of ASD (Bush, 2021, 2019; Dewinter et al., 2015, 2016a,b 2017b; Fernandes et al., 2017; Hancock et al., 2020; Hartmann et al., 2019; Pecora et al., 2019; Visser et al., 2017) or the diagnosis was provided/confirmed by a clinical record (Cheak-Zamora et al., 2019; Hannah & Stagg, 2016; Holmes et al., 2020a, 2019, 2016a, 2016b; Joyal et al., 2021; Kotzé et al., 2017; Masoudi et al., 2022; Teti et al., 2019). Some studies reported they recruited autistic participants; however, they provided no information on how the participants' diagnosis was obtained (Brilhante et al., 2021; Palermo & Bogaerts, 2015) or parents reported ASD (Kenny, 2021; Mackin et al., 2016; May et al., 2017). In Cheak-Zamora and colleagues' (2019) study, 40.7 % of the autistic participants also self-reported having a co-occurring ADHD diagnosis, so although this study did not focus on the population with ASD co-occurring with ADHD, some of the findings might also be interpreted for this population. Some (35%) studies (Bush, 2019; Dewinter et al., 2016a, 2015; Hancock et al., 2020; Hannah & Stagg, 2016; Joyal et al., 2021; May et al., 2017; Pecora et al., 2019; Visser et al., 2017) included a control group alongside the autistic group, and 4% (1 study) was a case study (Palermo & Bogaerts, 2015).

### III.4.1.2. Studies on The Population with ADHD

In terms of the studies on the population with ADHD, collectively, they all provided only self-reports on romantic relationships and sexual behaviours. There was no research identified on the topic from either caregivers' or educational professionals' perspectives. The total sample across the studies on young people with ADHD comprised 861, out of which 494 had ADHD. Across the studies, the age range was 12.6-28 years, and the mean age range was 13-19.6 years. The male-female with ADHD ratio across all studies was 65% versus 35%. All studies recruited participants with ADHD, verified by a screening tool (Margherio et al., 2021; Guendelman et al., 2016; Halkett & Hinshaw; 2021; Rokeach & Wiener, 2018; VanderDrift et al., 2019). Most studies (80%) (Guendelman et al., 2016; Halkett & Hinshaw; 2021; Rokeach & Wiener, 2018; VanderDrift et al., 2019) included a control group alongside the group with ADHD.

#### III.4.2. Synthesis of Results

#### III.4.2.1. Findings from Qualitative Research in The Autistic Population

In total, eight studies were found that explored the topic of romantic relationships and sexuality education in the autistic population qualitatively (Brilhante et al., 2021; Cheak-Zamora et al., 2019; Dewinter et al., 2017b; Hannah & Stagg, 2016; Mackin et al., 2016; Masoudi et al., 2022; Palermo & Bogaert, 2015; Teti et al., 2019) (see Table 1 in Appendix 1).

# III.4.2.1.1. Autistic Young People's Narratives of Their Experiences of Romantic Relationships

Only four studies (Brilhante et al., 2021; Cheak-Zamora et al., 2019; Dewinter et al., 2017b; Teti et al., 2019) and one case study (Palermo & Bogaert, 2015) were identified which provided autistic young people's narratives of their experiences of romantic relationships. The findings highlighted that many (80%) of these young people were single (Cheak-Zamora, 2019), although a substantial number of them (60% across two studies [Cheak-Zamora, 2019; Teti et al., 2019]) reported that they would like to have a romantic relationship. Autistic males (Dewinter et al., 2017b) reported having some experiences of romantic relationships, albeit several challenges related to their sexuality and relationships have been noted by Dewinter at al.'s (2017b) study. Namely, sensory and information processing concerns including recognising feelings of attraction or physical arousal, compulsive interests, and difficulties with social communications (e.g., recognising explicit and implicit information from their caregivers and friends, which impacted the participants' views on sexuality and interactions with their intimate partners). The difficulties with understanding social norms resulting in hindering romantic relationship experiences have also been reported by some other participants (Cheak-Zamora et al., 2019; Teti et al., 2019). Some autistic individuals have also

indicated that sensory processing issues might cause problems in their romantic relationships (Brilhante et al., 2021) including avoiding some physical contact (Cheak-Zamora et al., 2019). Cheak-Zamora et al.'s (2019) study has also highlighted that some autistic individuals would prefer to be in a romantic relationship with another autistic person or with someone who would understand their condition (ASD), as opposed to with someone else.

Some participants (between 15-25 years old) expressed feelings such as confusion, sadness and frustration due to their lack of romantic partners, as well as anxiety caused by their lack of understanding of how to build romantic relationships (Brilhante et al., 2021; Cheak-Zamora, 2019). Interestingly, in Cheak-Zamora's (2019) study, around 41% of the participants also self-reported having a co-occurring ADHD. This may imply that some of those participants might have a dual diagnosis and therefore might experience even greater challenges in navigating romantic relationships than their peers with autism, as discussed in Chapter I. Despite this and consequent attempts at initiating conversations on sexual topics with parents, some autistic young people felt ignored by their parents and, hence, they called for greater support in this context. Some autistic young people reported sexual and gender diversity (Brilhante et al., 2021) and, interestingly, autistic females were found to display lower levels of sexual interests than autistic males (Cheak-Zamora et al., 2019); perhaps due to feeling anxious and lacking knowledge of how to gain a romantic relationship, those females resulted in having less interests in it. The findings from the case study (Palermo & Bogaert, 2015) demonstrated that a young, in this case, autistic male, displayed inappropriate sexual behaviour by providing 'sexual services' to others in exchange for money, without realising the inappropriateness of such activities.

### III.4.2.1.2. Autistic Young People's Narratives of Their Sexuality Knowledge and Sexuality Education

Only one study (Hannah & Stagg, 2016) was identified that investigated autistic young people's narratives about their sexuality education. In contrast to their non-

autistic peers, autistic young people reported high levels of social anxiety and problems with socialising and bonding with others. This, in turn, limited their opportunities to learn about sexuality from peer groups. Some autistic young people also reported feeling vulnerable to sexual victimisation, having experienced abusive relationships, or participating in illegal activities such as stalking. Some of these problems might have been the consequences of inadequate sexuality education since some of these young people reported dissatisfaction with the sexuality education they received in their schools. In this study, the participants did not indicate whether they were current students or, what quantity of formal sexuality education they obtained, and what type of school they attended (e.g., mainstream, special needs), hence, as suggested by Hannah and Stagg (2016), these aspects are important and warrant further exploration.

### III.4.2.1.3. Caregivers' Narratives of Their Autistic Adolescent and Young Adult Children's Romantic Relationship Experiences

Only one study (Masoudi et al., 2022) was identified that provided caregivers' narratives of their autistic children's romantic relationship experiences. Some caregivers expressed their concerns about their children's sexual safety, loneliness, being bullied by their peers and the possibility of them having no romantic relationships in future. Some parents felt concerned about their preparedness and self-efficacy to discuss sexual topics with their children and many of them felt unable and helpless to support their children with their sexual behaviours. Consequently, many parents felt that their lack of ability to help their autistic children with their sexual behaviours affected their mental health states and their marriages.

### III.4.2.1.4. Caregivers' Narratives of The Need for Sexuality Education for Their Autistic Adolescent and Young Adult Children

Caregivers' narratives of the need for sexuality education for their autistic children were identified in two studies (Mackin et al., 2016; Teti et al., 2019). Some

parents expressed feeling a lack of support from the professional services on their communication with their autistic children on sexual topics (Mackin et al., 2016). Many parents expressed positive views on the possibility of targeted sexual education/interventions provided to their autistic children. Some parents also suggested that technology (e.g., videos, video games, websites, and mobile device applications) would facilitate their children's sexuality learning (Mackin et al., 2016). Interestingly, across both studies, some parents were more concerned about adverse outcomes of their children's sexual experiences (e.g., sexual exploitation, abuse or misinterpretation of the child's sexual behaviours, sexual offences) rather than goals of overall healthy sexuality (only a few parents could imagine their child being in a romantic relationship in the future). Several caregivers also voiced concerns about pornography (that their children may perceive it as normal sexual behaviour) (Teti et al., 2019). The majority (88.5%) of the caregivers across those studies were mothers who discussed mostly (80.5%) their sons' experiences.

#### III.4.2.2. Findings from Quantitative Research in The Autistic Population

In total twenty papers (Brown et al., 2017; Bush, 2019, 2021; Dewinter et al., 2015, 2016a, b; Fernandes et al., 2017; Hannah & Stagg, 2016; Hancock et al., 2020; Hartmann et al., 2019; Joyal et al., 2021; Holmes et al., 2020a, 2019; 2016a, b; Kenny et al., 2021; Kotzé et al., 2017; May et al., 2017; Pecora et al., 2019; Visser et al., 2018) explored the topic of romantic relationships and sexuality education in the autistic population quantitatively via questionnaires (see Table 2 in Appendix 1).

## III.4.2.2.1. Autistic Young People's Self-reports on Their Experiences of Romantic Relationships

Eleven papers (Brown et al., 2017; Bush, 2019, 2021; Dewinter et al., 2015, 2016a, b; Hancock et al., 2020; Hartmann et al., 2019; Joyal et al., 2021; May et al., 2017; Pecora et al., 2019) explored self-reported romantic relationship experiences in autistic young individuals. The findings highlighted that although many autistic young people (73%-77.9%) showed interests in romantic relationships (Hartmann et al., 2019; Joyal et al., 2021) at a similar level to their NT peers (88.5%, Joyal et al., 2021), many of them were currently single (80+%, May et al., 2017) and they felt anxious due to their lack of understanding of how to build romantic relationships (Hancock et al., 2020). Many of them (80.9%), however, similarly to their NT peers (91.3%), believed it was important to be in a long-term relationship in the future (Joyal et al., 2021). In terms of sexual orientation, the majority of autistic males (63.4%-82%), similarly to their non-autistic counterparts (75.9%-93%) reported heterosexual attractions (Joyal et al., 2021; May et al., 2017 respectively). A substantial number of autistic females (over 90% in Bush, 2021; 50% in May et al., 2017), however, were found to display other sexual orientations than heterosexual. Conflicting evidence was also reported; the majority of autistic females (63%) similarly to their non-autistic peers (69.3%) identified as heterosexual (Joyal et al., 2021). The discrepancy might be explained by differences in the methodology employed in these studies.

Autistic females were found to display lower levels of sexual interests than autistic males (Pecora et al., 2019) and their non-autistic peers (Bush, 2019; Joyal et al., 2021). Nonetheless, they displayed more sexual experiences than autistic males (May et al., 2017; Pecora et al., 2019), but less than non-autistic females (Bush, 2019; Joyal et al., 2021). Importantly, autistic females reported having more regretful sexual experiences and were more likely to experience an unwanted sexual event than autistic males and non-autistic females (Brown et al., 2017; Joyal et al., 2021; Pecora et al., 2019). Notably, autistic females demonstrated lower levels of sexual awareness (Joyal et al., 2021) including their own emotions, sexual thoughts, sensations and how they presented sexuality to others when compared to NT peers (Bush, 2019).

Two studies conducted by the same group of researchers (Dewinter et al., 2016a, 2015) focused on the self-reported sexual experiences in autistic young males. Joyal et al. (2021) also included male groups (autistic and non-autistic) in their study. Across all these studies, all participants reported interests in sexuality, the majority of them (over 80%) had some experiences of romantic relationships, although autistic males reported fewer experiences and showed lower interests in sexual activities than their non-autistic

counterparts (Joyal et al., 2021). Some of those young males reported negative sexual experiences including being victimised and rejected by others due to a lack of knowledge about sex (Joyal et al., 2021). Across two studies (Dewinter et al., 2016a, 2015), only a very small number of males reported using coercion to get someone to do sexual activities with them (n=3 autistic males compared to n=2 NT males) or being coerced by someone else (n=2 autistic males compared to n=0 NT males). Interestingly, 43.9% of the autistic males reported being concerned that their sexual behaviours might be misunderstood by others and 31.7% that they might be taken advantage of, compared to 21.4% and 10.7% of the NT participants reported these concerns respectively.

Across all studies, some methodological issues need highlighting. Studies that recruited only female participants (Bush, 2019, 2021; Pecora et al., 2019) or male participants (Dewinter et al., 2016, 2015) could not make comparisons by gender or sex, however, genders typically display different romantic experiences and safety concerns (Cheak-Zamora et al., 2019). Studies conducted by Bush et al. (2019, 2021) utilised different standardised questionnaires, however, they were not specifically normed for the autistic population. On the other hand, Pecora et al. (2019) applied 'The Sexual Behaviour Scale, Version 3' (SBS-III; Hancock, 2017) in their study, which was confirmed as a reliable measurement to measure socio-sexual functioning both in autistic and nonautistic individuals.

## III.4.2.2.2. Autistic Young People's Self-reports on Their Sexuality Knowledge and Sexuality Education

Only three studies (Hannah & Stagg, 2016; Joyal et al., 2021; Visser et al., 2018) were identified that investigated self-reported sexual awareness and sexuality education in autistic young people. The findings across two studies (Hannah & Stagg, 2016; Joyal et al., 2021) demonstrated that autistic young individuals displayed substantially lower sexuality understanding (42.6% compared to 15.4%) (Joyal et al., 2021) including sexual consciousness, sexual monitoring, sexual assertiveness, and sex appeal consciousness (Hannah & Stagg, 2016) than their NT peers. Interestingly, 38.8% of autistic young people, compared to 24% of their NT peers, reported having mostly learnt about

sexuality in schools, and only 7.5 % of autistic people learnt from their peers, compared to 29.8% NT young people (Joyal et al., 2021). Conflicting evidence emerged from Visser et al.'s (2017) study, which demonstrated that around 50% of autistic adolescents, similarly to their non-autistic peers, could appropriately evaluate and judge illustrated sexual situations (whether they were socially appropriate or not). Moreover, autistic adolescents gave harsher judgements (i.e., were more conservative) on sexual behaviours, which were considered by the expert panel as extremely inappropriate and liable to punishment, when compared to their non-autistic peers.

### III.4.2.2.3. Caregivers' Reports of Their Autistic Adolescent and Young Adult Children's Romantic Relationship Experiences

Six studies (Dewinter et al., 2016b; Fernandes et al., 2017; Hartmann et al., 2019; Holmes et al., 2020a, 2016b; Kotzé et al., 2017) were found that investigated experiences of romantic relationships from the perspectives of their caregivers. Across those studies, the parental tendency to undervalue their autistic children's romantic interests in other people (Hartmann et al., 2019), sexual experiences such as masturbation and orgasm (Dewinter et al., 2016b), as well as sexual victimisation and problematic behaviours (Hartmann et al., 2019), were highlighted. Some caregivers also expressed their concerns about their children's sexual safety, loneliness, being bullied by their peers and the possibility of them having no romantic relationships in future (Holmes et al., 2020a). Some parents (in Fernandes et al., 2017; Holmes et al, 2016b; Kotzé et al., 2017) also highlighted that their autistic young adult children exhibited inappropriate sexual behaviours including touching someone or trying to have sexual intercourse with someone without their consent, deviant masturbation, paedophilia, fetishism, voyeurism, and sadomasochism. Despite those problems, some parents felt concerned about their preparedness and self-efficacy to discuss sexual topics with their children (Holmes et al, 2016b).

Importantly, the majority of parents/caregivers, who took part in the studies were females (above 80%) (Dewinter et al., 2016b; Fernandes et al., 2017 did not specify caregivers' gender) who mostly discussed their sons' (around 70%) sexual and romantic

experiences. Dewinter et al.'s (2016b) study focused only on a lifetime experience including solo and partnered sexual acts, excluding many other aspects of romantic relationships. That study utilised a nine-question scale on common sexual behaviours such as masturbation, orgasm, relationships, French kissing, being forced to do sexual things (which were part of an online questionnaire 'Sex under the age of 25 II' study [de Graaf et al. 2012 in Dewinter et al., 2016b]), which the authors specifically adjusted for their study. The nine questions followed a closed, multiple-choice answer format ('yes', 'no', [the question on experience of orgasm had also a choice: 'I don't know').

## III.4.2.2.4. Caregivers' Reports on Sexuality Knowledge and Sexuality Education for Their Autistic Adolescent and Young Adult Children

Across three studies (Holmes et al., 2016a, 2019, Kenny et al., 2021), predominantly mothers (88.9% +) provided their perspectives on their autistic children's sexuality education (girls in Holmes et al., 2019; the majority of males [86.8%] in Holmes 2016a, no information on the children's gender provided in Kenny et al., 2021). Holmes et al.'s (2016a) study showed that parents of children with more severe symptoms of ASD, irrespective of IQ, had lower expectations with regards to their children's romantic relationships and consequently discussed fewer sex-related topics with their children, compared to parents who had higher romantic expectations for their child. Across two other studies (Holmes et al., 2019, Kenny et al., 2021), the findings demonstrated that the majority of parents (over 80%) used talking/discussion to educate their children about sexuality, not utilising other methods such as social stories, books or videos. Across those studies, many parents (80%) communicated with their children mostly on basic topics related to sexuality including privacy, private body parts, what types of touch are fine and what are not fine (abusive), puberty, and sexual and reproductive health (i.e., pregnancy, responsibilities involved in pregnancy). Some parents omitted topics that they recognised as insignificant or unnecessary, or, in their opinions, their child was not ready for such discussions. For example, sexual abuse was not discussed by 59% of parents who reported feeling convinced that they were able to guard their child against it (Kenny et al., 2021). Some parents (7%), however, stated they would feel embarrassed to

discuss sexual abuse with their children (Kenny et al., 2021). Topics such as STDs, AIDS and contraception were not discussed by 40% of parents in the group of children with average/above intellectual abilities and around 85% in the group of children with low intellectual abilities (Holmes et al., 2019); some parents omitted these topics as, in their views, their children were too young (Kenny et al., 2021). Dating and marriage were further topics ignored by some parents (around 25% - 50% in Holmes et al., 2019) during sexuality discussions with their autistic children. Importantly, across all those studies, some parents reported feeling unprepared or lacking the self-efficacy to communicate on sexuality with their autistic children.

## III.4.2.3. Findings from Quantitative Research in The Population with ADHD

In total, six papers (Guendelman et al., 2016; Halkett & Hinshaw, 2021; Margherio et al., 2021; Rokeach & Wiener, 2018; VanderDrift et al., 2019) were identified that quantitatively researched the topic in the population with ADHD (see Table 3 in Appendix 1).

## III.4.2.3.1. Young People with ADHD Self-reports on Their Experiences of Romantic Relationships

In total, six papers (Guendelman et al., 2016; Halkett & Hinshaw, 2021; Margherio et al., 2021; Rokeach & Wiener, 2018; VanderDrift et al., 2019) explored the topic of selfreported romantic relationship experiences in the young population with ADHD. Across all studies, the findings demonstrated that young people with ADHD experience challenges in their romantic relationships. Some findings highlighted that, greater symptoms of ADHD lead to greater challenges with romantic relationships due to less ability to engage in relationship maintenance (VanderDrift et al., 2019). Greater symptoms of ADHD were also related to greater engagement in more risky sexual behaviours (RSBs) including more unprotected sexual activities, more sexual activities

with newly met people, more impulsive sex, more risky anal sex, and sexual activities under the influence of alcohol or drugs (Halkett & Hinshaw, 2021; Rokeach & Wiener, 2018). These types of behaviours have consequently led some of these young people to have developed an STD or become accidentally pregnant more often than their NT peers (Rokeach & Wiener, 2018). The findings also indicate that young females with ADHD were more likely to experience more oral sex activities (Halkett & Hinshaw, 2021), as well as shorter-lasting romantic relationships (Rokeach & Wiener, 2018) than their peers without ADHD. Interestingly, in a study by Rokeach and Wiener (2018), there was no significant difference found with regards to the quality of romantic relationships (e.g., aggression or abuse) between the groups with ADHD and NT. Guendelman et al. (2016) investigated victimisation in romantic relationships experienced by young females with ADHD. The findings showed that childhood diagnosis of ADHD may predict five times (30% females with ADHD compared to 6% females without ADHD) heightened risk for physical intimate partner violence (IPV) victimisation by young adulthood in females with ADHD. Interestingly, Guendelman et al. (2016) indicated that the core childhood diagnosis of ADHD, irrespective of other factors including sociodemographic, cognitive, and psychiatric (e.g., poverty, maltreatment, depression, conduct problems), predicts risk for victimisation for females, and it is especially linked with increased risk for physical abuse by a romantic partner by young adulthood. Females with persistent ADHD have been found to be twice as likely to experience IVP and victimisation than those with transient ADHD, and nine times as likely to experience IVP and victimisation than females without ADHD (Guendelman et al., 2016).

### **III.4.3.** Clinical Implications

Several important clinical implications were identified in this systematic review. Autistic young individuals have specific needs and requirements from sexuality education, which differ from the needs their NT peers present (Hannah & Stagg, 2016). Therefore, tailored sexuality education (e.g., supervised social groups) has been suggested as a means to help to enhance autistic young people's social skills to help them build healthy romantic relationships (Brilhante et al., 2021). Sexuality education for

autistic people should consider normalising low desire for partnered sexual activity that some autistic individuals present and incorporating an aspect of being aware of one's internal sexuality (i.e., one's own thoughts, feelings, sensations), as well as being able to accurately recognise signals from others (Bush, 2019). Healthcare professionals could deliver support to parents about autism and sexuality to enhance their understanding of the topic and thus enable them to discuss sex-related issues with their autistic children (Holmes et al., 2020b; Kenny et al., 2021).

Given the poor outcomes of romantic relationships in many young people with ADHD, it is important that inclusive assessment of the young population with ADHD also comprises enquiries into the essence of their romantic relationships (Rokeach & Wiener, 2018). The obtained information might subsequently be useful for clinicians to help develop specific strategies and possibly sexuality education curriculum, which might then help this young population to reduce unsafe sexual behaviours and achieve better outcomes of their romantic relationships (Rokeach & Wiener, 2018). Considering that inattention and hyperactivity-impulsivity are correlated with reduced motivation for maintenance of romantic relationships, specific programmes have been suggested for each category of ADHD characteristics. Since inattention characteristics may cause to endure relationship dissatisfaction, the programmes could aim at providing strategies to help focus on the partner's good qualities, as opposed to concentrating only on one's interests and pursuing new relationships, to sustain the relationship (VanderDrift et al., 2019). Hyperactivity-impulsivity, however, may cause failure to stay in the relationship, hence the programmes may aim at teaching skills to help learn to avoid destructive or impulsive responses to the partner's bad behaviour and instead, for example, discussing the problems in order to solve them (VanderDrift et al., 2019). Individuals with elevated ADHD symptoms may benefit from receiving support on communication and conflict resolution skills to improve their romantic relationships experiences (Guendelman et al., 2016).

### III.4.4. Risk of Bias within Studies

The risk of bias in this systematic review is defined as overrepresentation or underrepresentation, or a lack of information regarding specific features in the study including participants' ethnicity and gender. Additionally, a bias would indicate a lack of inclusion of a control group in the study, as well as the lack of information provided regarding the participants' diagnoses (ASD/ADHD). The risk of bias of each study was assessed and the data are presented in Table 6 (see Appendix 2). There was an observed risk of bias of sample selection across the studies since 35% of them recruited mostly White/Caucasian (80+%) participants in their studies and 39% did not provide this information at all. In terms of the generalisability of the findings, none of the findings could be generalisable to the wider population. Across the studies, 33% of the findings' generalisability was limited mostly to the male population (as reported across those studies, 80+% participants were males) and 21% was limited mostly to the female population (as reported across those studies, 80+% participants were females). Some (64.5%) utilised a screening and/or diagnostic assessment to assess participants' diagnosis of ASD or ADHD. Almost half (43%) of the studies included a control group in the study.

Across the qualitative studies, four were assessed as moderate risk of bias, and one as low. Across the quantitative studies, the majority (n = 17) were assessed as moderate risk of bias, and eight were low. One was a case study hence the risk of bias was not applicable (Palermo & Bogaerts, 2015).

### **III.5.** Discussion

Although the identified studies in the autistic young population were conducted using different methods including qualitative designs based on semi-structured interviews or focus groups, they all demonstrated that many autistic young individuals exhibit strong interests in romantic relationships and courtship. Many of them, however, also encounter barriers to achieving satisfying romantic relationships and thus experience short-lasting romantic relationships (Cheak-Zamora et al., 2019), or fewer sexual experiences when compared to their non-autistic peers (Bush, 2019). These

outcomes resonate with previous findings (Engström et al., 2003; Hofvander et al., 2009; Howlin & Moss, 2012).

Some of the challenges experienced by some of the autistic young people in their romantic relationships were communication difficulties (Brilhante et al., 2021; Dewinter et al., 2016, 2015) and a lack of awareness of how to establish romantic relationships (Cheak-Zamora et al., 2019; Teti et al., 2019). Another important issue reported by some autistic young people were sensory difficulties, which hindered their romantic relationship experiences (Brilhante et al., 2021; Cheak-Zamora et al., 2019; Dewinter et al., 2017b). Sexual and romantic relationship experiences are related to sensory sensitivities and sensation-seeking across numerous sensory processes, including sound, smell, touch, and sight (Gray et al., 2021). Sensory features have both positive and negative impacts on sexual and romantic relationship experiences in many autistic people and, hence, they should be considered in education curriculum and clinical practice (Gray et al., 2021).

Interestingly, some autistic young individuals expressed greater comfort about being in a romantic relationship with another person who would understand their condition (ASD) or were autistic themselves (Cheak-Zamora et al., 2019). Indeed, autistic individuals might show a propensity to establish close friendships or romantic relationships with other people who are 'akin' (e.g., rejected by society, having untypical interests, regarded as 'weird', and having impairments in social interactions) (Parchomiuk, 2019).

Studies which focused on romantic experiences of autistic young males demonstrated that they encounter difficulties with building their romantic relationships including problems with communication and finding partners (Dewinter et al., 2017b, 2016, 2015; Joyal et al., 2021). Autistic females, however, were found to be more vulnerable to having negative sexual experiences (Brown et al., 2017; Joyal et al., 2021; Pecora et al., 2019, 2020) and presented lower levels of sexual awareness than nonautistic females (Bush, 2019; Joyal et al., 2021). These findings are consistent with previous research (Cantor et al., 2015). An earlier exploration of the subject suggested that some of those vulnerabilities include a naïve involvement in promiscuity as an avenue of developing desired romantic relationships, unfortunate selections of abusive

intimate partners (Attwood, 2007, 2009, 2013), being overly trusting, and more likely to misinterpret other people's sexual intentions (Cridland et al., 2014). Some autistic females may also engage in sexual activities to avoid social exclusion (Kanfszer et al., 2017). The potential of sexual coercion and victimisation may be another factor that should not be ignored (Bush, 2016). As highlighted by Brown et al. (2017), due to inadequate sexual knowledge, experiences, and difficulties in social situations, autistic individuals might be at heightened risk for sexual victimisation. Other people may additionally perceive individuals with neurodevelopmental conditions as 'different', hence making them easier to dehumanise (Ohlsson Gotby et al., 2018). It has been suggested that the offender dehumanises their victim as a way to justify their immoral act in both physical (Haslam, 2006) and sexual (Rudman & Mescher, 2012) violence.

The review also highlighted that some autistic young people exhibit inappropriate behaviours such as touching another person without their consent (Holmes et al., 2020a) or providing 'sexual services' to others in exchange for money, without realising the inappropriateness of doing it (Palermo & Bogaerts, 2015). Although some autistic individuals may display inappropriate behaviours including paraphilias, such types of sexual behaviours in the autistic population are not typical (Kolta & Rossi, 2018). Kellaher (2015) argued that deviant sexual behaviours in some autistic people may imply "counterfeit" deviant sexual behaviour. Counterfeit deviance describes an inappropriate sexual behaviour, which may be identified as a paraphilia, whereas it stems from the impairment in social skills and inadequate sexual understanding and experience (Griffiths, 2013). Furthermore, earlier research exploring autism and sexuality (Realmuto & Ruble, 1999) highlighted that some of those inappropriate sexual behaviours are typical during the sexual development of children; as children learn socio-sexual norms through peer interactions and formal education, they stop displaying those behaviours (Barnett et al., 2015). Many autistic young individuals, however, lack the opportunity to learn from socialising with peers, which is crucial to acquiring knowledge about norms pertaining to social interactions (Koller, 2000; Mehzabin & Stokes, 2011). Indeed, typically, autistic young people, due to their impairments in social communication, acquire their sexuality knowledge predominantly from media including films (Dewinter et al., 2013; Stokes et al., 2007), and they often believe that films depict real and

appropriate ways of sexual conduct, whilst some of the illustrated sexual behaviours in the films might be offensive. The internet is another frequent source of sexual knowledge for some autistic people (Ballan, 2012; Crehan et al., 2022), which sometimes may have legal consequences. For example, inadequate sexual knowledge and the desire to form romantic relationships, coupled with the aptitude and comfort with computers some autistic individuals may present (Sabet et al., 2015; Sugrue, 2017), might lead some of them to sexual offences, such as the viewing/possession/distribution of 'Indecent images of children' (IIOC) (Allely & Dublin, 2018; Mahoney, 2009). Due to the tendency to collect, as well as limited abilities to read other people's emotions and mental state, some autistic individuals may have difficulties with distinguishing the age of the actors in pornographic materials and, hence, are at a higher risk of watching or simply assembling (without even opening the files) IIOC (Mesibov & Sreckovic, 2017).

Some autistic young people have been found to display much less understanding concerning sexuality than their non-autistic peers (Hannah & Stagg, 2016; Joyal et al., 2021). In contrast, Visser et al. (2017) showed that autistic young people displayed a similar level of knowledge to their NT peers when judging illustrated sexual behaviours. The inconsistency between these studies could be explained by the possibility of the discrepancy between theoretical knowledge about sexuality (as shown in Visser et al., 2017) and practical application of it in real-life situations (as shown in Hannah & Stagg, 2016; Joyal et al., 2021). Some autistic young people might have some technical knowledge of sex-related topics, as well as understand the unspoken rules of social interactions, however, due to their ASD symptomology, they may find it challenging to put that understanding into practice in their everyday life situations (Rothman et al., 2020).

With regards to the parental perspectives on their autistic children's romantic relationships, the current literature review highlights that some parents underestimate their children's romantic and sexual experiences including sexual victimisation and consensual, and non-consensual sexual experiences (Hartmann et al., 2019). This outcome might be the result of inadequate parent-child communication on sexual topics (Hartmann et al., 2019). This result converges with previous findings (Mehzabin & Stokes, 2011) indicating that many autistic young people learn about sexuality by themselves as

opposed to through communication with their parents. Indeed, parents tend to avoid sensitive topics (e.g., STDs, contraception) when conducting discussions around sexuality with their autistic children (Holmes et al., 2019, Kenny et al., 2021; Mackin et al., 2016). Similar findings have been reported in previous literature (Ballan, 2012; Holmes & Hilme, 2014). This is concerning since the lack of understanding of these important sexual concepts may lead to problems such as HIV or other STDs, or unwanted pregnancies (Cameron et al., 2020). Generally, parents tend not to utilise other resources (e.g., books, videos) than talking/discussing sexuality with their autistic children (Holmes et al., 2019; Kenny et al., 2021). Parents might think that schools or community-based interventions provide their autistic children with enhanced instructional techniques during sexuality education and, therefore, they may not feel the need to use other strategies than talking (Ballan & Freyer, 2017).

Some parents raised concerns about their autistic children being victimised in their romantic or sexual relationships (Teti et al., 2019). Despite this, they reported being unequipped or lacking the self-efficacy to discuss some of the sensitive topics about sexuality with their children (Holmes et al., 2019, 2016a, 2016b; Kenny et al., 2021; Mackin et al., 2016). This supports previous findings, which indicated that parents want to help their autistic children with sexual issues, nevertheless, they lack the appropriate tools to do it (Holmes, 2014). A systematic review which investigated parent-autistic child sexuality communication also highlighted that problem and recommended that parents of autistic young individuals could receive sexuality education training to enhance their skills at discussing sex-related topics with their children (André et al., 2020).

In terms of romantic relationships in the young population with ADHD, the current, albeit quite limited, literature highlights that, romantic relationships may also be challenging for many young people with ADHD, for example, in terms of conflict management (VanderDrift et al., 2019). Rokeach and Wiener's (2018) study showed no significant difference between the quality of romantic relationships in young people with ADHD and their peers without ADHD. That finding was inconsistent with research by VanderDrift et al. (2019). Although both studies (Rokeach & Wiener, 2018; VanderDrift et al., 2019) were conducted quantitatively, the use of different measures and definitions of 'quality of relationships' might have influenced the results. Interestingly, contradictory to

developmental theories, which postulate that peer interactions are crucial in developing skills necessary to create and maintain romantic relationships (Van de Bongardt et al., 2015), Margherio et al. (2021) showed that social skills were not associated with the outcomes of romantic relationships in a group of young people with ADHD. Liu and Ilmarinen (2020) suggested that, in terms of romantic relationships, the similarity in communication and social-cognitive skills between the partners attracts one another. This may suggest that young people with ADHD build romantic relationships with people who present similar social skills to theirs. This, in turn, may indicate, given the maladaptive coping mechanisms observed in the romantic relationships in some young people with ADHD (Overbey et al., 2011), that long-lasting relationships in young individuals with ADHD may not necessarily mean successful and desirable experiences of those relationships.

Furthermore, some young individuals with ADHD might be promiscuous and more vulnerable to developing an STD or becoming accidentally pregnant than their NT peers (Rokeach & Wiener, 2018). Previous research (Galéra et al., 2010; Hosain et al., 2012) demonstrated that hyperactivity/impulsivity and combined ADHD symptoms were linked with heightened RSBs such as having sex without protection, multiple sexual partners, sex under the influence of alcohol or drugs and unintended pregnancy. RSBs have been associated with sexual victimisation in both the NT population (Fargo, 2009) and young people with ADHD (White & Buehler, 2012).

This systematic review has also indicated that some young people with ADHD, especially females, may experience greater conflicts in their romantic relationships (VanderDrift et al., 2019) and greater rates of IPV, perpetration and victimisation in their romantic relationships when compared to individuals without ADHD (Guendelman et al., 2016). These findings are supported by further literature investigating older groups of individuals with ADHD (Ben-Naim et al., 2017; Jabalkandi et al., 2020; Wymbs et al., 2019; Wymbs & Gidycz, 2021). The lack of understanding of sexual concepts, misconceptions regarding intimacy issues and being shamed for asking questions regarding sexuality, may contribute to relationship difficulties encountered by some young people with ADHD (Blankenship & Laaser, 2004). Insights into sexuality education in this group of the population, however, are absent from the current body of research.

Notably, in this systematic review, there were no papers found that would provide insights into romantic relationship experiences and sexuality education for young people with ASD co-occurring with ADHD. Based on previous findings (Chen et al., 2015; Jang et al., 2013; Zablotsky et al., 2020), however, it may be that young individuals with a dual diagnosis might experience even greater difficulties with building and maintaining their romantic relationships than individuals with a single condition (ASD or ADHD). Additionally, the perspectives of educational professionals on the topic were absent from the current literature. Educators' views are vital (Mackin et al., 2016). It would be useful to obtain their views on which topics should be included in the curricula of sexuality education for neurodivergent young people (Kenny et al., 2021).

Creating effective sexuality education that would acknowledge the voices of the neurodivergent population and that would hold the notion that sexual *health "is not merely the absence of disease, dysfunction or infirmity"* (World Health Organisation [WHO], 2015, p.5) but healthy sexuality can provide opportunities for cultivating pleasurable and safe sexual experiences, and wellbeing (MacKenzie, 2018; Mitchell et al., 2021) is critical.

### III.5.1. Future Research Directions

This systematic review has highlighted a variety of key areas that warrant further investigation. There are evident research gaps in the current literature on romantic relationships in the autistic population, for example, the majority of studies identified in this review were conducted quantitatively and they reported that many autistic young people were single, however, many of them would like to be in a romantic relationship. Additionally, some autistic participants across qualitative (Brilhante et al., 2021; Cheak-Zamora, 2019) and quantitative (Holmes et al, 2016b) studies reported having difficulties understanding social norms, which subsequently had a negative impact on their romantic relationships. Some participants also expressed feeling frustrated, confused, and sad about their inadequate understanding of how to navigate romantic relationships (Brilhante et al., 2021; Cheak-Zamora, 2019; Holmes et al, 2016b). Qualitative research

could explore these areas in more depth, for example, by trying to understand the reasons for the lack of romantic experiences in some autistic young people, as well as identifying potential ways of support (if required) in this context. Given that sexuality education and romantic relationships are interwoven phenomena (as discussed in Chapter I), participants' inadequate knowledge related to romantic relationships might be the consequence of the inadequate sexuality education provided to them.

The existing, limited studies investigating sexuality education in the autistic population also demonstrated that typically autistic young people show lower levels of understanding of their sexuality including emotions, thoughts, and how they present sexuality to other people than their NT counterparts (Bush, 2019; Joyal et al., 2021). Some studies (Hannah & Stagg, 2016; Joyal et al., 2021) reported that autistic young people learn about sexuality mostly in schools, as opposed to from their peers, whereas NT young people also learn from their peers. All these factors might contribute to a lower knowledge about sexuality that autistic young people present when compared to their NT peers. However, to have a greater understanding of the reasons for this outcome, it would be useful to explore perceptions of sexuality education in this group of young people and compare them with perceptions from NT peers, as well as investigating other than schools/colleges avenues of sexuality education for young people. This may help to outline the impact of sexuality education on autistic young people's understanding of sexuality and romantic relationships. Given that the majority of studies about sexuality education in autistic young people were conducted quantitatively, future research could be conducted via qualitative measures as this may allow a researcher for a much greater flexibility in terms of the information gathered and hence may help to provide a richer understanding of the topic (Barrett & Twycross, 2018), as well as identifying new, more complex issues related to the topic that may not be possible to obtain via quantitative designs (Kelly, 2017).

Furthermore, some autistic young people also reported a lack of support from their parents on sex and relationships and hence they asked for support in this context (Brilhante et al., 2021). Given this information, it would be beneficial to investigate the type of support that young people would like to receive from their parents on topics related to sexuality and romantic relationships, as well as exploring parental perceptions

of discussing sexuality and romantic relationships with their autistic children. The current review found only one study conducted qualitatively on romantic relationships in autistic young people from the perspectives of caregivers (Masoudi et al., 2022). In this study, caregivers focused on reporting their concerns about their children's sexual safety, despite this, many also reported feeling unprepared to discuss sexuality-related topics with their children and, consequently, voiced the need for support in this context. Similarly, in two qualitative studies (Mackin et al., 2016; Teti et al., 2019), many parents also reported feeling unprepared to discuss sexuality no reports were made of any possible support for parents in this context. Hence, it is recommendable to investigate the type of support parents might want to receive to feel more equipped at supporting their children with sex and relationship endeavours.

Additionally, this current review highlighted the existing gap in research on sexuality education in the autistic young population from the perspectives of educational professionals. Further research on sexuality education in schools is required to understand what techniques and instructions are used during the sexuality education lessons and whether they are effective in teaching autistic young people about sexuality (Holmes et al., 2019). Further investigation into the topic, thus, apart from providing young people's and parental perspectives (Holmes et al., 2019; Teti et al., 2019), should also provide views from educators (Mackin et al., 2016). Young people, their caregivers, educators, and clinicians should collaborate to provide optimised tools on sexuality (Ballan & Freyer, 2017). Further research therefore should strive to understand how these diverse groups could work together in creating appropriate sexuality education for autistic young people (Teti et al., 2019). Importantly, research should be more sensitive to the particular needs and requirements of autistic individuals in order to help achieve a more profound understanding of the challenges these individuals may face, with the ultimate goal to shape policy in special education (Hannah & Stagg, 2016).

Given that individuals with ADHD tend to be specifically vulnerable to experiencing physical violence in their romantic relationships (Guendelman et al., 2016), researchers should direct their efforts to understand how to empower this group of the population in their romantic relationships (Guendelman et al., 2016). Investigating experiences of romantic relationships in young people with ADHD and comparing them

to their NT peers might help to better understand the uniqueness of romantic relationships in individuals with ADHD (Margherio et al., 2021).

A detailed account outlining the limitations of existing studies and how these limitations informed the development of this project's studies, as well as how this project's studies will address these limitations, is provided in the following section III.7.

### **III.6.** Conclusion to Systematic Review

The review highlighted that many ND young people experience greater difficulties with building and maintaining their romantic relationships than their NT peers. Despite these difficulties, many of them do not receive adequate support in the form of tailored sexuality education. This review also highlighted a lack of research on sexuality education in ND young people from the perspectives of educational professionals. However, they play essential roles in shaping young people's sexuality knowledge and hence their voices on this topic are vital (Plaza-del-Pino et al., 2021). Additionally, this review identified no studies on sexuality education in the young population with ADHD from the perspectives of young people and their caregivers, however, considering the challenges within romantic relationships that many young people with ADHD tend to experience. Given that sexuality education and romantic relationships are intermixed with one another, it is essential to understand what sexuality education is delivered to young people with ADHD, and whether it is useful or not in terms of providing them with adequate knowledge to navigate romantic relationships. The current research also lacks qualitative explorations of romantic relationships in the young population with ADHD. Qualitative designs might better shed light on some aspects/details of romantic relationship experiences in this group of the population (Barrett & Twycross, 2018). Importantly, this review highlighted the lack of research on romantic relationship experiences and sexuality education in individuals with ASD co-occurring with ADHD and therefore it is imperative to investigate this area.

### III.7. Critical Evaluation of Research in The Systematic Literature Review and Uniqueness of this PhD Project

This subsection will provide a critical evaluation of the research included in the systematic literature review. It will not be focusing on providing the studies' findings (unless they will be considered important to make specific points), for they are discussed in Chapter III.1., as well as provided in detail in Appendix 1. Additionally, this chapter will highlight the uniqueness of this project by indicating the specific areas/gaps that this project will address in its empirical studies.

### III.7.1. Limitations of Studies on The Autistic Young Population

The studies reviewed, despite their important contribution to the existing body of research on romantic relationships and sexuality education in autistic young people, had some limitations that warrant highlighting. Generally, there is restricted knowledge on the topic both from quantitative and qualitative research. However, in the existing research, the majority (69%) applied quantitative designs (i.e., questionnaires), hence there is a need for more qualitative studies in this field. Qualitative research allows for much greater flexibility in terms of the information gathered, which can help to identify new processes (Barrett & Twycross 2018; Schnitzler et al., 2023) and hence help to better understand some aspects/specifics of sexuality education and romantic relationship experiences in this group of the population. This project will address this gap by conducting not only a quantitative but also a qualitative study on the topic.

### III.7.1.1. Research from The Perspectives of Autistic Young People

In the qualitative research conducted on romantic relationship experiences and sexuality education from the perspectives of autistic young people, limitations included a lack of confirmation of participants' diagnosis (Brilhante et al., 2021). Some studies did not explore gender differences, despite recruiting different gender participants (Brilhante et al., 2021; Hannah & Stagg, 2016) or due to focusing solely on just one gender of

participants (Dewinter et al., 2017b). Investigating gender differences is essential as research (Brown et al., 2017; Cheak-Zamora et al., 2019; Pecora et al., 2019) has shown that autistic females report greater obstacles related to their romantic relationship experiences than their male counterparts. Future research should seek to obtain a better understanding of this crucial area. This project will seek to investigate romantic relationships experiences in autistic males, females and other genders.

Furthermore, some studies (Brilhante et al., 2021; Dewinter et al., 2017b) reported that some autistic young people expressed a lack of support from their parents on topics related to sex and relationships and hence the need to receive greater support in this area, yet the studies did not provide any details of the support those young people would like to receive (e.g., discussions around specific topics). This research will explore this area in more detail by exploring young people's perspectives on sexuality communication with their parents including covered and omitted topics during discussions and what type of support they would like to receive from their parents in this context. Cheak-Zamora et al. (2019) reported that the majority of autistic young people, who were not in romantic relationships, articulated the desire to be in one. Those participants reported feeling sad and confused about their lack of ability to establish a romantic relationship; however, they did not voice their opinions on any potential measures/efforts that could be formed to help them improve their romantic relationship situations. This area is hence important to be investigated. Again, this project will investigate this area by asking participants about any potential ways of support they would like to receive to gain or enhance their skills at building and navigating romantic relationships including the role of sexuality education in this context.

The age of participants constituted another restraint; a study by May et al. (2017) investigated sexual attraction in a relatively young cohort (14-15 years old) and that might have impacted the results since sexual behaviour only emerges at this time and might change when these young people become adults (National Society for the Prevention of Cruelty to Children [NSPCC], 2023). Notably, although autistic young people develop physically at the same pace as their NT peers, their social-emotional development is typically delayed (Adrien et al., 2021). Therefore, in that study, autistic participants might have felt more confused about their sexuality than their non-autistic

peers at such a young age and those factors might have influenced the results. Therefore, this project will explore the topic in older groups of young people (18-25 years old), whose sexual development is at the final stage of completion, or it is completed, as discussed in Chapter I.

In terms of the scales utilised in quantitative research, the majority of studies focused on questions regarding specific, intimate, physiological, sexual contact, for example: "During the last month, how often would you have liked to engage in a sexual activity with the partner (for example, touching each other's genitals, giving or receiving oral stimulation, intercourse etc)?"; "Sexual Desire Inventory (SDI)" in Bush (2021), as opposed to other essential aspects related to romantic relationships, for example, having concerns about being in a romantic relationship, having concerns about exhibiting behaviours that might be perceived as inappropriate in a romantic relationship; having concerns about recognising whether another person is attracted to them or not; about recognising whether the relationship is healthy or not; feeling more vulnerable than their peers to being abused in a romantic relationship. Given that autistic young people reported experiencing fewer romantic relationships (Bush, 2019) and shorter romantic relationships (Cheak-Zamora et al., 2019), as well as more negative romantic relationship experiences when compared to their NT peers (e.g., Joyal et al., 2021), it might be essential to explore the aforementioned aspects to help better understand the needs and requirements that autistic young people may have in terms of their romantic relationships and consequently sexuality education, as discussed in the previous section and Chapter I, and hence all these factors will be investigated in the quantitative research of this project (via surveys).

Across the research, findings demonstrated that autistic participants were significantly more likely to report experiencing, for example, no partnered sexual activities when compared to their non-autistic counterparts (males in Dewinter et al., 2016a), fewer opportunities to meet potential partners and felt more anxious when meeting any potential partners than their NT peers, shorter-lasting relationships and greater concerns about their future romantic relationships than their NT peers (Hancock et al., 2020). The existing research, however, did not report about any potential ways/types of support that young autistic people might find beneficial to help them

improve their current romantic relationship outcomes. A qualitative study could better shed light on possible means of supporting autistic young people in their sexual/romantic endeavours. Qualitative research allows a researcher to better understand the participants' experiences and offers detailed insights into how any potential interventions (sexuality education) may alter participants' experiences (Barrett & Twycross, 2018). Qualitative research may additionally help to explore complex issues and obtain data on difficult questions that otherwise may go unanswered (Kelly, 2017). Sexuality and romantic relationships are sensitive matters hence through qualitative research some aspects may be explored that might not be possible via a quantitative design. For instance, in an interview, reasons for challenges within romantic relationships among autistic young people, as well as suggestions of support that young people would like to receive in this context (e.g., focus on specific topics during sexuality education; access to professional support [doctors, mental health support] etc.) can be explored in detail.

Some studies' findings appeared to be reported in a manner that might be questionable. In a study by Joyal et al. (2021), the authors claim that, due to the findings showing that some autistic participants scored lower on the questions regarding their interests in sexual behaviours than their NT peers, they are "simply not interested in socio-sexual behaviours" (Joyal et al., 2021, p.15). They also add that autistic participants reported lower knowledge and experience regarding sexuality than NT peers. Perhaps the lower outcomes on the questions about interest in sexual behaviours in the autistic group were the result of their lack of understanding about sexuality, which could also impact their experience, as opposed to the lack of interest in sexual behaviours per se. Interestingly, in Bush (2021), the results demonstrated that over one-third of participants reported asexual identity. In that study, identifying as asexual was associated with not having a current sexual partner, having fewer lifetime sexual partners, experiencing less desire for partnered and solo sexual activity, and experiencing fewer lifetime sexual behaviours. The reasons behind one's lack of sexual experience or sexual partner, however, might not necessarily equate to being asexual. Given that past (positive or negative) sexual experiences may influence subsequent sexual adjustment (Reissing et al., 2012), perhaps some of those young people had previous negative sexual

experiences, which affected their attitudes toward future sexual relationships. Perhaps some of them might have felt that they lacked the necessary skills to build and maintain a romantic relationship. No further inquiries into any possible explanations of those experiences were reported. A qualitative exploration of those topics might provide more detailed accounts of participants' experiences and hence enrich the understanding of the subject. This project (via interviews) will focus on exploring autistic young people's reasons for lack of romantic relationships or little experience in this area, as well as exploring suggestions for support in this context that young people would like to receive (if required).

### III.7.1.2. Research from The Perspectives of Caregivers

Qualitative research on romantic relationships and sexuality education in autistic young people from the perspectives of their caregivers is also very restricted (only three studies [Mackin et al., 2016; Masoudi et al., 2022; Teti et al., 2019] were identified in the review). Across those studies, caregivers (the vast majority being mothers) provided their perspectives on their autistic children's (mostly males) romantic relationships and sexuality education. Teti et al. (2019), alongside the caregiver group, also included the young people's group, however, the majority were males. The findings from these studies, therefore, could not be interpreted for autistic females. More pressing still is the need to recognise views and experiences from a first-person perspective in females (Teti et al., 2019). This project will thus explore (via interviews) romantic relationship experiences in both autistic and NT young people from the perspectives of young people (including females) and their caregivers.

Mackin et al. (2016) did not report any measurements to check the children's ASD diagnosis, which was provided by parents. In that study, the children were classified according to the 'classroom functional status' (regular classroom 75%-100%; regular classroom 0%-50% non-verbal); however, no further information was provided that would explain the meaning of the status. None of the studies (Mackin et al., 2016; Masoudi et al., 2022; Teti et al., 2019) reported gender differences, possibly due to

focusing mostly on male participants. All these qualitative studies demonstrated that parent-child sexuality communication appeared inadequate. Caregivers additionally voiced various concerns about their autistic children's romantic relationships and sexuality education (details are provided in Appendix 1). Therefore, it would be useful to explore if caregivers would like to receive support (and if yes, what type) to enhance their sex-related communication with their autistic children. However, no information on this topic was provided in those studies. This is an important gap that requires addressing. This may help inform adequate training for caregivers in terms of parentchild sexuality education, and, subsequently, may improve parent-child sexuality discussions and ultimately children's knowledge about sexuality. Consequently, this project will focus on investigating the type of support (e.g., professional, school-based etc.) that caregivers would like to receive (if any) to feel more equipped at supporting their autistic children with aspects related to sexuality and romantic relationships. Additionally, in Masoudi et al. (2022), the focus was mainly on parental concerns regarding their children's sexuality and romantic relationships; although caregivers mentioned various concerns (e.g., children's lack of skills to build romantic relationships, children's lack of skills to maintain deeply emotional relationships), the study did not report any sex-related topics that parents might discuss with their children to help them understand specific aspects of sexuality. Exploring topics that caregivers cover during their conversations with their children about sexuality is important to evaluate possible reasons for children's lack of skills related to romantic relationships (perhaps children did not receive adequate education to understand some aspects related to romantic relationships). This project (via interviews) will explore what subjects related to sex and relationships caregivers cover with their children, what subjects they do not cover (but, perhaps, deem important and would like their children to learn about), and the consequent reasons for this. If necessary, potential support that caregivers may wish to receive on this matter.

Methodological limitations are also found in quantitative research on romantic relationships and sexuality education in autistic young people from parental perspectives. For instance, studies by the same group of researchers (Holmes et al., 2016a, 2020a) provided a financial reward to participants. However, there are

complexities associated with such way of recruitment including participants' reasons and motivations for enrolling in research (see Grady, 2019). Monetary motivation might generate different responses in the survey than genuine interest in the research and recognition of its significance. The lack of a control group was also a common limitation within this research (Dewinter et al., 2016b; Fernandes et al., 2017; Hartmann et al., 2019; Holmes et al., 2020a, 2016a, 2016b), however, including a control group may help determine whether the experiences of autistic young people are typical of them or, generally, of all young people. The majority of studies provided perspectives from mothers (Holmes et al., 2016a, 2016b, 2020a; in Fernandes et al., 2017 gender of caregivers was not indicated) of autistic males (Fernandes et al., 2017; Holmes et al., 2016a, 2016b). Research that comprised both caregivers' and young people's perspectives, in the young people group, also included mostly autistic males (malefemale ratio: 52%-47% in Hartmann et al., 2019; 100% males in Fernandes et al., 2017). No gender differences were reported (although in Hartmann et al., 2019, the gender differences could be reported as the male-female ratio difference was not substantial).

Furthermore, in many studies which used a quantitative approach, the sole focus was on caregivers' perspectives (Holmes et al., 2016a, 2016b, 2019, 2020a; Kenny et al., 2021), excluding young people's perspectives. However, it is essential to include autistic participants to give them voice in research that seek to further develop the knowledge about autism (Chown et al., 2017). Future research, therefore, apart from providing caregivers' perspectives, should also strive to elicit autistic young people's perspectives on the topic since they are at the heart of this discussion. This project will provide both caregivers' as well as young people's perspectives on the topic.

Additionally, existing research lacked caregivers' perspectives on their children's school-based sexuality education. However, as reported in Chapter I, parents play vital roles in sexuality education provided in schools for their children, hence they should be involved in this topic to help to establish the most effective school-based sexuality education for their autistic children. Parent-school collaboration on this topic is therefore critical. The quantitative research of this project will investigate the parental understanding of their children's school-based sexuality education by asking parents, for example, whether their child's school/college provides sexuality education; how frequent

the lessons are; whether it would be beneficial to tailor sexuality education to the child's needs (if not provided yet); what topics the sexuality education covers; whether the school/college collaborates with parents on sexuality education, and if not, whether it would be recommendable to do so. Since quantitative research will mostly provide short answers ("yes"; "no"; "I don't know"; "I'd prefer not to say") to these highlighted inquiries, qualitative research will explore these features in more detail (the complexity and richness of the data that may be obtained via qualitative research were justified in the earlier part of this subsection), as well as investigating further important aspects, for example, what topics are absent in the current curriculum but, from the parental perspectives, they should be included in lessons to obtain a more thorough understanding of the subject.

Some quantitative studies (Dewinter et al., 2016b; Fernandes et al., 2017; Hartmann et al., 2019) demonstrated that caregivers' perspectives on their autistic children's romantic relationships differ from what the young people self-report. Hartmann et al. (2019) suggest that the reported discrepancies might be the result of parental lack of awareness of some private, sexual behaviours of their children or caregivers might report children's behaviours across the lifespan, whereas the children might focus only on their most current experiences. Those studies (Dewinter et al., 2016b; Fernandes et al., 2017; Hartmann et al., 2019) focused on exploring children's sexual behaviours or problematic sexual behaviours, as well as parental concerns about their children's future romantic relationships (e.g., a child may experience abuse or may not have a relationship in the future) and highlighted parental lack of appropriate skills to help their children with the highlighted issues. However, no information was reported about any potential support for parents in this respect. The quantitative research of this project, building on the reported concerns in the previous research, apart from investigating parental concerns about their children's romantic relationships in more detail (e.g., about parental knowledge about any challenges their children encountered in a romantic relationship; children's ability to recognise that someone is attracted to them or not; children's ability to recognise whether their romantic relationship is healthy or not), will also explore other aspects related to children's romantic relationship including parental knowledge about potential barriers that might be preventing their

children from getting into romantic relationships. The qualitative research of this project will focus on specific aspects related to children's romantic relationships (e.g., what parents know about children's romantic relationships including positive aspects of them) and potential support that parents might want to receive to feel more equipped (if required) to support their autistic children with their romantic relationship endeavours.

Quantitative studies that explored parent-autistic child sexuality communication from the perspectives of caregivers (Holmes et al., 2016a, 2019, Kenny et al., 2021), demonstrated that parents discuss mostly basic topics related to sexuality with their children (e.g., puberty, and hygiene) but omit some essential topics including abuse (being a victim of abuse). The qualitative research of this project will investigate this area in more detail, trying to understand parental attitudes toward conducting sexualityrelated discussions with their children and potential reasons for omitting some vital topics. Consequently, this project will investigate parental preparedness to discuss sexuality with their autistic children, as well as any support that they would like to receive (if any) in this context to feel more equipped to conduct such discussions.

#### III.7.1.3. Research from The Perspectives of Educational Professionals

Furthermore, studies exploring educational professionals' perspectives on romantic relationship experiences in autistic young people were absent from the literature (in March 2022 when the systematic review was conducted). However, in December 2022, the researcher conducted another search of the literature (based on the same databases and terms used in the original search conducted in March 2022), and one article (Bloor et al., 2022 [UK]) exploring sexuality education in autistic young people, from the perspectives of educational professionals, was found. This was qualitative research conducted via semi-structured interviews, which included teachers and other practitioners (10 females, three males) who taught sexuality education to autistic learners. That study focused on investigating the effectiveness of the resources applied during the lessons and how useful they were for students, as well as evaluating the positive and negative aspects of teaching sexuality education to autistic students. Some

educators indicated that providing tailored sexuality education (one-to-one sessions) might be beneficial for autistic students, however, some others concluded such teachings might induce anxiety caused by the pressure of one-to-one interactions. Educators reported a lack of appropriate resources to teach sexuality to autistic students and the need to create their own resources that would be positive and approachable for students. For example, using real-life photos is prevented by the national curriculum; cartoon images, however, do not look the same, which may confuse some autistic students, as reported by some educators in that study. The research also reported the importance of providing teaching related to "sexual impulses" (e.g., wanting to have sex with someone without consent) to prevent some autistic young people from behaving in an inappropriate way and consequently getting involved with the criminal justice system.

This project will further explore the educational professionals' perspectives on sexuality education for autistic young people including aspects related to resources used during sexuality education and their appropriateness or lack thereof for autistic students. Additionally, exploring other ways of delivery of sexuality education (e.g., discussions), which was not included in Bloor et al.'s (2022) study, will also be the focus of this project. Autistic students have different needs related to sexuality education than non-autistic peers (Hannah & Stagg, 2016), and therefore, investigating the means through which sexuality education is delivered might also be essential. This project will additionally concentrate on evaluating the topics that are taught and that are omitted in current sexuality education, however, educators' perspectives might be that they should be taught to autistic students. Importantly, this project will investigate educators' preparedness (e.g., received training) or lack thereof to teach sexuality to autistic students and ways of providing support to teachers in this context (if required). These are vital factors (as discussed in Chapter I), however, were not explored in the study by Bloor et al. (2022).

Furthermore, this project will explore educators' perspectives on romantic relationships in autistic young people, which was not the focus of Bloor et al.'s (2022) study. Romantic relationships, nonetheless, are one of the aspects included in the curriculum of sexuality education in the UK (Department of Education [DfE], 2019; Lang, 2020). Therefore, the lessons related to romantic relationships should be accessible to all

students, including those with special educational needs and disability (SEND). This obligates educational professionals to be able to recognise their students' needs in this respect. Understanding educational professionals' perspectives on their autistic students' romantic relationships and sexuality education and ascertaining their positions to discuss sexuality topics with their autistic students is therefore crucial.

All those highlighted gaps in the current literature on romantic relationships and sexuality education in autistic young people (as discussed in this sections) necessitate urgent attention. Thus, this project aims to improve the current understanding of the subject by exploring those essential gaps.

#### III.7.2. Limitations of Studies on The Young Population with ADHD

All studies, albeit a small number of six, identified in the review on romantic relationships in the young population with ADHD were conducted quantitatively, therefore, there is still a need to provide further investigations into the topic by quantitative designs. Additionally, further explorations of the topic utilising qualitative designs, which would provide more detailed accounts (Barrett & Twycross, 2018; Schnitzler et al., 2023) from this group of young people would be beneficial. This project will therefore investigate the topic via surveys and interviews.

The quantitative studies conducted on the population with ADHD provided only young people's self-reports on sexuality and romantic relationship experiences. The most common limitations within this research included a lack of exploration of gender differences; the reason behind it might be the absence of male participants in the studies (Guendelman et al., 2016; Halkett & Hinshaw, 2021). VanderDrift et al. (2019), however, did not report gender differences despite including proportionate numbers of male and female participants in the study. A restricted sample size, which failed to obtain sufficient statistical power, constituted a limitation across some studies (Halkett & Hinshaw, 2021; Rokeach & Wiener, 2018; VanderDrift et al., 2019), therefore, the generalisation of the results in these studies should be treated tentatively.

Guendelman et al.'s (2016) study examined intimate partner violence (IPV) victimisations via a single self-report question plus chart review, for example: "In any chosen sexual relationship you've had, has there been physical violence (pushing, punching, slapping)? Participants could choose between two answers: yes or no; if yes, they had to respond who caused the behaviour: (1) participant only; (2) partner only, or (3) both the participant and partner." This subsequently, as indicated by the authors, could have led to the unreliability of the measurement, as well as false negatives (i.e., an underestimate of the actual IPV frequency), which could have inevitably impacted the outcomes. Notably, all reviewed research focused only on investigating specific sexual behaviours including IPV victimisations (Guendelman et al., 2016), initial engagement in oral sex and sexual intercourse (Halkett & Hinshaw, 2021), the number of experienced romantic relationships, the age of onset of them, the duration of the relationships, and the engagement in sexual activities (e.g., intercourse) (Margherio et al., 2021; Rokeach & Wiener, 2018). One study (VanderDrift et al., 2019) focused or romantic relationship maintenance. However, none of them explored topics related to broader romantic relationship experiences including participants' concerns regarding relationships or any possible support to help them improve the negative outcomes of those relationships, as generally, many of them reported experiencing challenges including unwanted pregnancies, IPV and STDs. The quantitative research of this project will thus explore aspects related to participants' concerns about dating or becoming romantically involved with another person; concerns regarding how to recognise whether a dating or romantic relationship is healthy or not; whether participants feel more vulnerable than other people their age, to being abused by another person/their partner in a romantic relationship. In the qualitative study, participants will be able to provide only short responses to the questions ("yes"; "no"; "I don't know"; "I'd prefer not to say"). The qualitative research will explore these aspects in more detail, and it will also explore whether young people with ADHD would like to receive support and if yes, what type, to improve their romantic relationship outcomes.

Additionally, Guendelman et al. (2016) excluded participants without any prior romantic relationship experiences from their research. However, it may be useful to explore the factors potentially underlying this lack of experience and, if necessary,

possible means of support. This project will therefore address this gap by also including participants without any prior romantic relationship experiences and it will investigate the reasons for it and, if adequate, potential ways of support.

Despite the research in the current review highlighted the vulnerability of young people with ADHD to experiencing challenges within their romantic relationships, the review did not find any studies that would explore sexuality education or any potential solutions/efforts/means of support to help to reduce these negative experiences. These problems encountered by young individuals with ADHD, however, might be the results of a lack of appropriate sexuality education provided to them (see Østergaard et al., 2017). Empirical research that would offer insights into sexuality education in this group of young people is lacking. In order to address this gap in the knowledge, this project will explore sexuality education in this group of young people through a survey (quantitative research) and then will follow it up with interviews (qualitative research). The survey will investigate, for example, whether participants had sexuality education in their schools/colleges; what topics it covered, and how frequent the lessons were. In this study, participants will be able to provide short answers ("yes"; "no"; "I don't know"; "I'd prefer not to say"). The qualitative research will investigate the topic in more detail by, for example, exploring participants' perceptions of any topics that were excluded from the teachings, but it would be beneficial to cover; exploring what ways of delivery were applied during the lessons, as well as investigating suggestions for improvement in this area (if necessary). Through qualitative research, some more sensitive aspects regarding sexuality education may be explored (e.g., student-teacher sexuality-related discussions, if necessary, how they could be improved), which could be more difficult to investigate via a quantitative design (Kelly, 2017). A semi-structured interview also allows a researcher rigorous coverage of explored topics, however, due it its flexibility, it also provides some freedom to explore new ideas that participants may want to discuss in relation to the topic (Schnitzler et al., 2023). This freedom may be especially useful as sexuality is a sensitive topic; it will thus give participants freedom in terms of some aspects of sexuality that they may or may not want to discuss. Additionally, this research will also explore parent-child with ADHD sexuality communication. This will be the first inquiry into this topic in the current body of knowledge. Again, through qualitative

research, it will be possible to obtain detailed insight (Barrett & Twycross, 2018) into young people with ADHD sex-related discussions with their parents, the usefulness of them or lack thereof and suggestions for improvement (if required).

Similarly, caregivers' perspectives of romantic relationship experiences of young people with ADHD are nonexistent in the current literature. Due to the highlighted tendency of individuals with ADHD to overestimate their social competence (Crisci et al., 2022; Owens et al., 2007), it is crucial to also provide accounts of their caregivers to obtain more balanced information on the subject. This research will explore this area by investigating caregivers' perceptions of their children's school-based sexuality education, as well as parent-child sexuality discussions. The specifics related to the study's questions will be similar to the ones reported earlier in this section when discussing research from the caregivers' perspectives in the autistic population.

As previously noted, educational professionals play an important role in shaping young people's (including those with ADHD) views on romantic relationships and hence their perspectives on the subject are also vital (Plaza-del-Pino et al., 2021). Further research, therefore, should focus on exploring these crucial gaps in the current body of knowledge. This research will also investigate this important area (details of what will be explored in the study are the same as the ones identified earlier on the autistic population). Exploring sexuality education in young people with ADHD from the perspectives of young people, their caregivers, and educational professionals is thus imperative.

# III.7.3. Limitations of Studies on The Young Population with ASD cooccurring with ADHD

Studies investigating romantic relationship experiences and sexuality education in young people with ASD co-occurring with ADHD are conspicuously absent from the current body of knowledge. However, empirical evidence (e.g., Factor et al., 2017; Oerlemans et al., 2014) demonstrates that children with a dual diagnosis experience even greater social challenges than those with a single ASD or ADHD. Research should

thus seek to explore these experiences not only from the perspectives of these young people but also from their caregivers and educational professionals. This project's exploration, provided via surveys and interviews, based on three different perspectives (young people, their caregivers, and educational professional), will add original knowledge to the current body of research and provide researchers and practitioners with an essential window into these young people's romantic relationship and sexuality education experiences.

#### III.7.4. Section Conclusion

The current literature, despite its limitations (as explained in this section), provides crucial insights into romantic relationship experiences and sexuality education in autistic young people from the perspectives of young people, their caregivers, and educational professionals. The knowledge on the topic of young people with ADHD is restricted only to the perspectives of young people on some specific sexual behaviours, excluding broader concepts of romantic relationships and the perspectives of their caregivers and educators. Finally, insights into the topic of young people with ASD cooccurring with ADHD are absent from the current literature. This PhD project sets out to make a novel contribution to the presently limited body of research by addressing all these aforementioned gaps, and specifically producing original knowledge on the topic for young people with a dual diagnosis. This project will consist of three original studies; the Pilot Study (a survey which includes some open-ended questions), which aims to help inform the development of Study 2 (using surveys) and Study 3 (using interviews). Details of the design of the original studies will be discussed in the following chapter (IV) of this thesis.

The next section will provide an overview of the empirical studies of this project (Study 2 and Study 3), as well as outlining the research objectives and questions that will be investigated in the studies.

#### **III.8. Research Objectives and Questions**

This research aims to contribute to the existing limited knowledge on sexuality education and experiences of romantic relationships in ND young people (autistic, with ADHD, and with ASD co-occurring with ADHD [to the best of the researcher's knowledge, no research has yet to explore the topic in the group with a dual diagnosis]). The outcome of this project may contribute to a greater understanding of what type of sexuality education would be beneficial for ND young people. This, in turn, may help to provide adequate sexuality and romantic relationship advice for this group of the young population and consequently it may positively influence their skills at navigating romantic relationships. It may also help promote a greater general quality of life in the ND groups of young people.

The project aims to contribute to the existing body of knowledge and address the existing gaps through the objectives provided in Figure 1. The answers to these objectives will be obtained from the perspectives of three groups of participants: young people, educational professionals, and caregivers.

Figure 1. The project's aim and objectives.

## AIM:

Exploring Experience of Romantic Relationships and Sexuality

Education in Neurodivergent and Neurotypical Young People

PARTICIPANTS: Young People, Caregivers, Educational Professionals

# **OBJECTIVES:**

_					
	Investigating the	Identifying	Understanding how	Identifying the	Identifying the types of
	experiences of	what type of	current sexuality	challenges and	support that could be
	romantic	sexuality	education could be	barriers for	provided to sexuality
	relationships of ND	education is	improved to make it	sexuality educators	educators (if required) to
	young people	delivered to the	more appropriate (if	(teachers, parents)	improve their communication
	(autistic, with	ND young	required) for ND young	of ND young	on sexuality related topics
	ADHD, and ASD co-	populations.	people.	people.	with ND young people.
	occurring with				
	ADHD).				

The objectives of this project will be achieved via conducting two empirical studies (Study 2 and Study 3). Study 1 was a systematic literature review which is presented in Chapter III. The Pilot Study was used to help to inform the design of the Study 2 and Study 3. The overview of all the empirical studies is presented in Figure 2.

Figure 2. Overview of all the empirical studies of this project.

#### **Overview of the Project's Empirical Studies**

The Pilot Study: A Questionnaire Approach to Exploring the Experience of Romantic Relationships and Sexuality Education among Neurotypical and Neurodivergent Young People: Perspectives from Young People, Educational Professionals, and Caregivers. The aim of the Pilot Study was to test three types of questionnaires (the details are

provided in Chapter III), which were

used to inform the design of the

(interviews) of this project.

specifically designed for three groups of

participants. The results of that study were

subsequent Study 2 (surveys) and Study 3

Study 2 (survey): A Short Questionnaire Approach to Exploring the Experience of Romantic Relationships and Sexuality Education among Neurotypical and Neurodivergent Young People: Perspectives from Young People, Educational Professionals, and Caregivers. The aim of this study was to obtain guantitative data on sexuality education and romantic relationship experiences in ND young people and thus contribute to the currently limited knowledge on the subject in autistic young people and young people with ADHD. The additional aim was to provide an initial understanding of the topic in the group with a dual diagnosis.

Study 3 (interviews): A Semi-Structured Interview Approach to Exploring the Experience of Romantic Relationships and Sexuality Education among Neurotypical and Neurodivergent Young People: Perspectives from Young People, Educational Professionals, and Caregivers.

This study aimed to provide a greater, more detailed understanding of the topic from the perspectives of three groups of participants. To help obtain the objectives of the project, Study 2 and Study 3 investigate the following research questions:

### Study 2 (the survey):

- Research Question 1: What are participants' (young people, educational professionals, and caregivers) perspectives on sexuality education provided in schools/colleges to young people (neurodivergent and neurotypical), and is there a difference between these perspectives amongst four groups of young people (with ASD, with ADHD, and ASD co-occurring with ADHD, and NT)?
- **Research Question 2:** What are participants' (young people, educational professionals, and caregivers) perspectives on young people's romantic relationships, and is there is a difference between these experiences amongst four groups of young people (with ASD, with ADHD, and ASD co-occurring with ADHD, and NT)?

## Study 3 (interviews):

- Research Question 1: What are participants' (young people [neurodivergent and neurotypical], educational professionals, and caregivers) perspectives on young people's experiences of school-based sexuality education?
- Research Question 2: What are participants' (young people, educational professionals, and caregivers) suggestions for improving sexuality education to make it more beneficial for young people?
- **Research Question 3:** What are caregivers' and educators' suggestions about receiving support to feel more equipped at teaching sexuality education to young people?
- **Research Question 4:** What are young people's and caregivers' experiences of parent-child sexuality-related discussions?
- Research Question 5: What are participants' (young people, educational professionals, and caregivers) perspectives on young people's romantic relationship experiences?

#### **III.9.** Conclusion

This chapter provided a systematic literature review on romantic relationship experiences and sexuality education in ND young people from the perspectives of young people, educational professionals, and caregivers. The outcome of the review highlighted that many ND young people experience greater challenges navigating their romantic relationships than their NT peers. Despite that, many of them do not receive adequate sexuality education. This review also highlighted essential gaps in the current knowledge on the topic and hence helped inform the design of the empirical studies of this project (which will be discussed in Chapter IV) including the research objectives and questions that will be investigated.

The following chapter will include detailed information related to the design of the empirical studies of this project (the Pilot Study, Study 2 [surveys] and Study 3 [interviews]) including the researcher's ontological and epistemological philosophy and reflexivity related to conducting the qualitative study of this project (Study 3).

#### **Chapter IV: Methodology**

#### **IV.1. Chapter Overview**

This chapter provides a brief reminder (the full explanation of it was provided in chapter III) of the importance and unique contribution of this PhD project, followed by the researcher's ontological and epistemological position. It also discusses the rationale for the chosen methodology of the empirical studies of this project including details of the ethical considerations, data collection and analyses. Additionally, it includes the researcher's reflexivity regarding conducting Study 3 (interviews).

#### IV.2. The Importance and Unique Contribution of This PhD Project

The literature reviewed revealed restricted knowledge in the current body of research on romantic relationship experiences and sexuality education in the autistic young population and the young population with ADHD. Importantly, it also highlighted the gap in the existing body of knowledge on the topic in the young population with ASD co-occurring with ADHD. A current understanding of romantic relationship experiences and sexuality education in autistic young people came from either young people's selfreports or their caregivers' reports (mostly via quantitative designs), and there was one qualitative study (Bloor et al., 2022) found on sexuality education from educational professionals. The existing insights into romantic relationship experiences in young people with ADHD came solely from self-reports (only via quantitative designs). Notably, the current literature lacks empirical studies on sexuality education in young people with ADHD. It is also important to highlight the lack of previous studies investigating the topic of romantic relationship experiences and sexuality education in young people with ADHD and a dual diagnosis from the perspectives of educational professionals. This project, thus, seeks to fill in those highlighted gaps and yield a greater understanding of romantic relationship experiences and sexuality education in autistic young people and young people with ADHD, as well as producing an initial understanding of the topic in young people with a dual diagnosis. The unique contributions to this important field will be

made from the perspectives of three groups of participants: young people, educational professionals, and caregivers.

#### IV.3. Research Philosophy: Ontological and Epistemological Positions

The terms ontology (nature of reality of being, what is real, what exists) and epistemology (theorising knowledge, what is possible to know, meaningful ways of producing knowledge) refer to the philosophical theories that underpin research. They inform what is ideal and permissible, and what does and does not make sense in research practice (Braun & Clarke, 2021).

In this project, the researcher has undertaken different methodological approaches to answer the research questions. She has adopted a pragmatic epistemological position in the way she has designed the research. Pragmatism defines a 'paradigm of choices' (Patton, 1990, p.39) where the researcher justifies the choices about their research procedures to meet the project's goals. This approach indicates that all research methodologies are superior under different circumstances, and it is the researcher's decision to choose the most appropriate methodology for a specific study (Johnson & Onwuegbuzie, 2004). In this approach, mixing quantitative with qualitative methods provides an opportunity to validate findings from different methods of investigating a given phenomenon in a more rigorous fashion (Neuman, 2007). It also helps to address the research question in a more comprehensive and creative manner (Johnson & Onwuegbuzie, 2004). The mixed method approach involves different research strategies, where, for instance, a quantitative design is undertaken initially and then followed by a qualitative design (Flick, 2011). Each phase may be triangulated into a third phase where quantitative data may deliver broad outlines of the findings and qualitative data may subsequently provide in-depth reflections upon the researched phenomenon (Newby, 2014). The qualitative data may also contextualise and enrich findings (Bryman, 2004; Mason, 2006), expand validity when interpreting the data (Bazeley, 2003), and produce new knowledge (Stange, 2006). One method (e.g., qualitative), therefore, enhances the effectiveness of the other (e.g., quantitative) (the

rationale for why the researcher chose the quantitative design first and then the qualitative design is provided in section IV.4).

To address the research questions of this project, the researcher initially used a quantitative approach in the Pilot Study (a quantitative design which also included some open-ended questions) to inform the design of the two subsequent studies 2 and 3, (the detailed explanation of how the Pilot Study informed the design of the two subsequent studies is provided in section IV.4), where the researcher used the pragmatic, sequential, explanatory approach, with the qualitative phase (Study 3) followed by the quantitative phase (Study 2) (Creswell, 2013).

For several centuries, positivism has been the dominant epistemological framework across social sciences. This framework assumes that there is an objective reality, and thus objective knowledge may be produced through the adequate application of scientific methods (quantitative designs) (Braun & Clarke, 2021). The data obtained from a quantitative design can provide the basis for *'empirically-grounded conclusions, generalisations, theory testing and theory generation'* (Braun & Clarke, 2021, p. 177). Study 2 of this project forms a part of this measurable positivist approach as it aims to provide a large amount of data that can be generalisable to a greater population. However, the outcome of the quantitative study may only provide some broad understanding related to, for example, some topics that young people learnt or did not learn during their sexuality education. Qualitative designs, however, might better shed light on some aspects/details related to sexuality and romantic relationship experiences which may not be possible to be captured by the quantitative study (Barrett & Twycross, 2018). Therefore, Study 3 of this project is conducted via semi-structured interviews.

The epistemological approach adopted in the qualitative part of the project is non-positivist operating within the ontological framework of a critical realist (see Braun & Clarke, 2021). Critical realism was pioneered by the English philosopher Roy Bhaskar in the 1970s (Bhaskar, 1975; Bhaskar & Bhaskar, 1979). It may be understood as a 'third way' between positivism (realist, truth exists and is absolute) and relativism (truth exists in relation to an individual, truth is not absolute) (Bergin et al., 2008). Some critical realists frame reality as encompassing not only the natural, biological world but also human meanings and emotions (Maxwell, 2012). In qualitative research, the researcher

is a part of the world they try to understand, they cannot stand outside of the world (human and social reality) that they are observing (Pilgrim, 2014). Critical realism appears to be the most popular theoretical position for Thematic Analysis (TA) (Braun & Clarke, 2006, 2014, 2021, 2021a, 2022). In TA, a critical realist approach *'provides access to situated, interpreted realities, not simple, decontextualised truths'* (Braun & Clarke, 2021, p.171). The critical realist in TA may reflect on how the outside world (material and social structure) forms and hinders an individual's sense-making and may also position their accounts in the materiality they must manage (Sims-Schouten et al., 2007).

Positioned as a critical realist, the researcher accepts the notion that there are multiple realities 'shaped by social, political, cultural, economic, ethnic, gender disability and other values' (Mertens, 2010, p.11), at the same time, she recognises the role and significance of the individual in forming their subjective version of reality. An individual's context, for example, social or temporal, influences their understanding of the world alongside their own experience and interpretations and, hence, knowledge cannot be understood without the context (Burr, 2015). People's experiences are culturally located (Pilgrim, 2014). The researcher therefore believes that society produces relationships constructed of unequal networks of power by prioritising some individuals over others (Marx, 1973). The systemic marginalisation continues to exist today in the UK, as captured and explained in a United Nations (UN) report mentioning the violations of the rights of people with disabilities (UN, 2017). This is also evident in the UK disability survey research report (GOV.UK, 2021), which demonstrated that only one in 10 disabled respondents to the survey agreed that disabled people are given the educational opportunities they need to be able to thrive in society. This highlights the urgent necessity for greater support to help disabled young people reach their full potential in the educational system, and to transition smoothly into adulthood.

The researcher's axiological assumption (defined as *'branch of philosophy concerned with the role of values and ethics within the research process'* [Saunders et al., 2016, p. 711]) is that research should contribute to fostering social justice. Based on this, the researcher has situated herself in the paradigm of 'Transformative Theory in Evaluation', which assumes that while there might be various cultural norms which guide ethical conduct, research should strive to promote social justice and human rights

(Mertens, 2008). The transformative paradigm stresses the use of mixed and qualitative methods in research to outline the ecological complexity of one's position and to permit giving voices to those who have historically been marginalised such as ethnic, racial, and sexual minority group members and individuals with disabilities (Jackson et al., 2018). Within this framework, self-evaluation and self-understanding are crucial for a researcher to respect their relationship with participants and prioritise ethics and mutual benefit (Mertens, 2008). The researcher has therefore engaged in reflexivity throughout conducting the research (examples of reflective accounts are provided in Chapters I, IV and VII).

Furthermore, as a part of promoting social justice, the researcher strongly believes that all young people have the right to receive adequate sexuality education; this is also highlighted in the Sexual and Reproductive Health Rights (SRHR) (Berglas et al., 2014) that was established by the UN in 1994 during the landmark International Conference on Population and Development (ICPD) in Cairo (UN, 1995; World Health Organisation [WHO], 2023). During this conference, a comprehensive definition of reproductive health established with help from the Human Reproduction Programme was developed. Globally, this definition has impacted the policies regarding sexuality education in 179 countries including the UK. At ICPD, a global consensus was achieved placing individual dignity including gender equality and sexual and reproductive health at the heart of development (UN, 1995; WHO, 2023).

Operating within the paradigm of SRHR that gives all young people (the NT and ND groups) the right to receive a good quality and comprehensive sexuality education, as well as within the transformative paradigm that encourages the pursuit of social justice, the researcher is determined to pay attention to voice: the voice of educational professionals, caregivers and, most importantly, the voice of young people who are at the centre of this discussion and thus their voice is paramount. These voices are essential to establish what sexuality education young people would like to receive to feel that it is beneficial for them (as highlighted in Chapters II and III, at present, sexuality education appears to be created by adults to help young people remain 'innocent' as opposed to hearing young people's voices on the topic and developing sexuality education that is beneficial for them). Previous research has also advocated the SRHR for young people

through access to adequate sexuality education interventions including the ND groups of young people (as discussed in detail in section II.2.2.1.1). Nevertheless, despite this, current research still highlights the inadequacy of sexuality education for young people (see e.g., Cumper et al., 2023; Iyer & Aggleton, 2015), especially for the ND population (see e.g., Bovill et al., 2023). Therefore, as summarised in the recent HRP (the UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction) annual report: '[...] we must hold firm to proven solutions that make peoples' [sexual] health better and continue to identify approaches that work, to ensure lasting progress.' (Allotey, 2024, p.vii in WHO, 2024).

#### **IV.4. Research Design**

IV.4.1. Surveys

# IV.4.1.1. Choosing Surveys as Data Collection for the Pilot Study and Study 2

Quantitative research can offer good estimates of difference, generalisable findings, inform policy, and initiate real-world change related to a specific phenomenon on a larger scale. A survey is one of the most common quantitative data collection methods applied in empirical research (Miron, 1990). In recent times, due to technological developments (i.e., survey software on online platforms), survey data may be obtained quickly in substantial quantities, as well as being quickly and easily analysed, which constitutes an important advantage of applying it in research (Ball, 2019). There are, however, some disadvantages of utilising this data collection. For example, the information collected by the survey is constrained to highly structured questionnaires, which do not allow for maneuverability in the inquiry process (Miron, 1990). Additionally, sample selection and question validation are often neglected by research users of online survey methodology. This, consequently, may lead to collecting particularly biased data and thus the outcomes may not be robust and replicable (Callegaro et al., 2015). Nonetheless, previous studies investigating sexuality education and romantic relationships in young people (including the ND groups), applied surveys as data collection (see Chapter III for details); based on this, the researcher decided to utilise the surveys in Study 2 of this project (the details regarding the designs of the surveys are discussed in the following section [IV.4.2]). Study 2 aimed to gather a vast amount of data on the topic which could provide generalisable findings to a greater population. Additionally, the results could also allow for the investigation of the similarities and differences related to specific aspects of sexuality education and romantic relationship experiences amongst the four groups of young people (with ASD, ADHD, ASD co-occurring with ADHD, and NT).

# IV.4.2. The Pilot Study: A Survey Including Open-ended Questions; and Study 2: A Survey

Initially, three types of questionnaires were designed for three groups of participants (young people, educational professionals, and caregivers) (see Appendix 3 for the final versions of the questionnaires), which were used in the pilot study. All three questionnaires (which were transformed into online surveys) were created based on the gaps in the current research on the topic (see, e.g., Chen et al., 2018; Halkett & Hinshaw, 2021; Hannah & Stagg, 2016; Hancock et al., 2020; Hartmann et al., 2019; May et al., 2017; Rokeach & Wiener, 2018). Existing questionnaires, which were utilised in previously published studies conducted with young people about sexuality, were explored and, subsequently, specific questions for the purpose of the pilot study were adapted. Some questions were added/designed as they were important for this current research, however, they did not exist in any of the previous studies (see Appendix 4 for details on the design of all three questionnaires).

In all three groups, the survey consisted of short answer options and participants were asked to tick one response, for example, in the survey for caregivers:

8. Has your child ever been provided with any additional interventions or educational support sessions within or outside their school/college to improve their social communication skills?

Yes

No I don't know I'd prefer not to say

A few questions were open-ended and allowed participants to provide their own answers, for example:

#### 8a. If yes, what type of additional support have they received?

I don't know

I'd prefer not to say

Some questions provided longer answer options and participants were asked to tick one or more responses:

#### 8b. If yes, who provided them with the additional support?

The school/college

GP/Medical professional (e.g., nurse)

Counsellor

Therapist

Psychologist

Psychiatrist

Family

Peer feedback

The Internet

Technology based (videos, mobile device applications)

Other (give examples)

I don't know

I'd prefer not to say

The results of the pilot study subsequently informed the development and refinement of the questionnaires used in Study 2 (surveys) and informed the semistructured interview guides for each group of participants (young people, educational professionals, and caregivers) for Study 3. The limited number of participants completing the surveys in each group in the pilot study (n=18 young people; n=11 educators, n= 11 caregivers) demonstrated that there was a requirement to redesign the surveys to make them more interesting for the participants. After analysing the initial versions of the surveys (the pilot study), a few aspects, which might suggest why there were limited numbers of completed surveys, were identified. Importantly, across the three groups some participants tended to omit additional open-ended (sub) questions. For example, in a questionnaire for young people, question Q21 was:

# 21. Do/Did you receive the same sexuality education that all students in your school/college receive/received?

Yes No I don't remember I don't know I'd prefer not to say

Then there were some follow up questions:

#### 21a. If no, what sexuality education do/did you receive in your school/college?

l don't remember
l don't know
l'd prefer not to say
21b. Was the sexuality education you received useful for you?
Yes
No
l don't remember
l don't know
l'd prefer not to say
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#### 21c. If yes, what was it that you found helpful or useful? / If not, why not?

I don't remember I don't know I'd prefer not to say **21d. Do you think the sexuality education you received could have been better?** Yes No I don't know I'd prefer not to say **21e. If yes, in what way?** 

I don't know

I'd prefer not to say

The fact that participants across the groups tended to omit the additional subquestions, might indicate that the questionnaires were too long (the questionnaire for young people comprised 28 main questions and there were also sub-questions (20 in total) to some of the main questions, which in total constituted 48 questions; for educators there were 32 main questions and also sub-questions (25), in total there were 57 questions; and for caregivers 38 main questions with sub-questions (33), in total 71, and participants preferred to answer only the questions with closed responses (see Appendix 10 showing the missing responses to the sub-questions in the surveys for each group of participants, as well as the full analysis of the Pilot Study). This could have impacted some potential participants' decision to take part in the study, or perhaps some participants started to complete the survey, however, due to its length, they did not finish it. In the educational professionals' group, it appeared that participants tended to "copy and paste" answers to open-ended questions, which asked specific details referring to specific groups (categories) of students (group 1: autistic students, group 2: students with ADHD, group 3: students with ASD co-occurring with ADHD; group 4: NT students). For example: question Q6:

6. Does your school/college provide students, in the following categories, with any interventions
or educational support sessions to improve their social communication skills? (tick one response
per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention Deficit/Hyperacti vity Disorder	Students with Autism Spectrum Disorder co- occurring with Attention Deficit/Hyperacti vity Disorder
Yes, they receive the same support provided to all students where I teach				
Yes, they receive additional support to what is provided to all students where I teach				
No I don't know				
I'd prefer not to say				

The follow-up questions were:

6a. If where you teach does offer additional support for students with autism spectrum disorder and/or attention-deficit/hyperactivity disorder to help improve their social skills, what type of additional support is offered? (give as much detail with examples as possible per category)

Students with Autism	Students with Attention-	Students with Autism
Spectrum Disorder	Deficit/Hyperactivity Disorder	Spectrum Disorder co-
		occurring with Attention-
		Deficit/Hyperactivity Disorder

l don't know	l don't know	l don't know
l'd prefer not to say	l'd prefer not to say	l'd prefer not to say
Not applicable	Not applicable	Not applicable

6b. If where you teach does not offer additional support for students with autism spectrum disorder and/or attention-deficit/hyperactivity disorder to help improve their social skills, do you think additional support on this particular topic would be beneficial or helpful? (tick one response per category)

	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactivity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactivity Disorder
Yes			
No			
l don't know			
l'd prefer not to say			
Not applicable			

6c. If you think that additional support for students with autism spectrum disorder and/or attention-deficit/hyperactivity disorder to help improve their social communication skills would be beneficial, what type of interventions or support would you recommend for students in the following categories? (give as much detail with examples as possible per category)

Students with Autism	Students with Attention-	Students with Autism
Spectrum Disorder	Deficit/Hyperactivity Disorder	Spectrum Disorder co-
		occurring with Attention-
		Deficit/Hyperactivity Disorder

I don't know	I don't know	I don't know
I'd prefer not to say	I'd prefer not to say	I'd prefer not to say
Not applicable	Not applicable	Not applicable

6d. In your experience, why do you think is it important to provide additional interventions/support for students with autism spectrum disorder and/or attention-deficit/hyperactivity disorder to help improve their social communication skills? (give as much detail with examples as possible, per category)

Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactivity Disorder	Students with Autism Spectrum Disorder co- occurring with Attention- Deficit/Hyperactivity Disorder
I don't know	l don't know	I don't know
I'd prefer not to say	I'd prefer not to say	I'd prefer not to say
Not applicable	Not applicable	Not applicable

This could indicate that participants might have found it too difficult or timeconsuming to write detailed answers separately for each group of students or simply they lacked the knowledge to be able to distinguish differences, nuances between these four groups of students to answer these open-ended questions. The length of the survey and these open-ended questions asking specific details about specific groups of students might have impacted some potential participants' decision against participating in the study.

## IV.4.2.1. Co-creation of The Short Surveys

Given the limited response to the surveys for the Pilot Study, the researcher had a meeting with Autism@Manchester Expert by Experience Group on 21st September 2021 to discuss the questionnaires' designs. The group suggested making the questionnaires simpler for all three groups of participants and ensuring the language used across all three questionnaires is also relatively simple; hence, the researcher made slight changes to some of the questions (e.g., replacing the word *exhibits* with *shows*). The group also emphasised the importance of ensuring that participants know the questionnaire is anonymous (which was addressed by writing this information in bold; it was written in small letters in the previous version of the questionnaires). Additionally, the researcher was advised to make the advert for the study more inclusive of different groups of young people including people with different gender identities, sexual preferences, asexual and aromantic people etc. (which was also addressed). The amendment to the study's questionnaires (short versions of the questionnaires) was sent to the ethics committee for revision and received approval. The shorter versions of the surveys for each group of the participants (details are available in Appendix 8) were used in Study 2 of this project. As a result, the short versions of the questionnaires (Study 2) retained only the questions with closed responses from the pilot study questionnaires and the open-ended questions were removed. The open-ended questions from the pilot study questionnaires and their results informed the design of the semi-structured interview guide for Study 3.

Study 2 was a quantitative design investigating the topic of romantic relationship and sexuality education in NT and ND young people from the perspectives of young people, caregivers, and educational professionals. The surveys aimed to reach larger samples to confer high statistical power.

#### IV.4.2. Study 3: Interviews

#### IV.4.2.1. Choosing Interviews as Data Collection for Study 3

There are various means of collecting qualitative data, for example, ethnography (which would involve observing the lessons) is often used in studies on education, and it

has demonstrated a practical impact on the development of curriculum including teaching strategies (Borgnakke, 2019). However, this project was conducted during the Covid pandemic (see Hiscott et al., 2020), therefore access to schools was not possible; as such, this method was rejected. The researcher conducted a systematic literature review on the topic (see Chapter III) and based on the qualitative data collection employed in previous studies on similar topics, the decision was to utilise interviews and focus groups (this method was an alternative avenue only for educational professionals [the rationale behind this is explained below]) as a data collection for Study 3.

Study 3 was based on semi-structured interviews. The benefits of interviews are that they permit a useful balance between leading a participant through open-ended questions and prompts while also allowing the conversation to flow freely and hence obtaining detailed information on specific areas of discussion (Coolican, 2014). Interviews are often used in social research as they can facilitate gaining explicit accounts of people's performances via inclusive speech interaction (Berg, 2007). Despite its common use, this data collection has also some limitations, for example, interviews are timeconsuming, they can never be entirely anonymous, and they are subject to subconscious bias and potential inconsistencies (Alshengeeti, 2014). Additionally, online interviews (as in the case of this project), despite having many advantages including logistical accessibility and practicality (e.g., researchers can reach out to geographically isolated participants, there are no travel costs involved, there is greater flexibility in terms of arranging the interview) (Irani, 2019) also have some disadvantages. For example, technological issues may occur during the interviews, which may consequently cause distraction, as opposed to being focused on the discussed topic (Irani, 2019). The lack of physical proximity, which may sometimes be useful to provide comfort to a participant, especially when the research topic is of a sensitive nature, may also affect the quality of the provided responses (Irani, 2019).

Nonetheless, researchers should strive that the interviews they conduct are not only illustrative, but they are also critical and reflective (Alshenqeeti, 2014). I have therefore engaged in writing a reflective account of various aspects related to conducting the interviews including personal reflexivity related to the project as well as situating myself in relation to data, reflecting on the process of interviewing participants,

conducting the interviews, and analysing them (some reflective accounts are available in Chapter I, IV, and VII).

I also considered using focus groups as a method of data collection for Study 3. Focus groups allow for a greater spontaneity of the discussion (Krueger, 1994), may help participants to recall information (Valentine, 1999) and, in general, can create a more relaxed and enjoyable atmosphere (Stewart & Shamdasani, 1990). However, due to the sensitivity of the research topic, the decision to conduct focus groups with young people and caregivers was declined. The reason behind this was that young people or their caregivers might feel uncomfortable discussing some aspects related to their/ or their children's sexuality and romantic relationships knowing that other people are listening to them. This option however was opened for educational professionals since it was assumed that they should have a less personal attitude towards the topic. Being in a group with other colleagues (people they are familiar with and feel comfortable with), could give them a greater sense of security in numbers (Bloor, 2001), hence could make them feel more relaxed and allow them to be more open when discussing some issues related to romantic relationship and sexuality education of their students. The possibility of snowballing during the discussion of various topics might also be one of the potential benefits of focus groups (Bloor, 2001). Focus groups are also more efficient than interviews in gaining multiple views (Krueger, 2014). Additionally, participants would not be permitted to withdraw their data after having completed the discussion (this information would be provided to them in the Participant Information Sheet and Consent Form), which, from the researcher's viewpoint, constitutes another advantage of conducting focus groups. The power dynamic between the researcher and participants is decreased in focus groups when compared to interviews, therefore, this might also have a positive impact on participants by giving them greater freedom to discuss the issues related to the topic. Given all these benefits of focus groups, educational professionals were given the option to take part in focus groups or interviews in Study 3. Nonetheless, all educators who took part in this study chose to participate in interviews.

The following section will explain how the open-ended questions in the Pilot Study influenced the semi-structured interview guide for each group of participants in Study 3.

# IV.4.3. Designing the Semi-structured Interview Guide for each Group of Participants in Study 3

The open-ended questions in the pilot study (16 in the questionnaire for young people, 24 in the questionnaire for educators, and 28 in the questionnaire for caregivers) provided participants' perspectives of young people's romantic relationships experiences and sexuality education. For example, in the questionnaire for young people, question Q24 was followed up by an open-ended question Q24a:

# 24. Do you have any concerns about learning about sexuality, dating and romantic relationships from the Internet?

Yes No I don't know I'd prefer not to say

#### 24a. If so, what are your concerns?

I don't know

I'd prefer not to say

The aspects highlighted by the participants in the open-ended responses in the questionnaires were important and hence they required further attention in Study 3. Consequently, the semi-structured interview guide for each group of participants in Study 3 was meant to provide a greater understanding of some of the key aspects highlighted by participants in the pilot study (see Table 7 for key content analysis from the open-ended questionnaires in the pilot study), as well as in the systematic literature review (as reported in Chapter III in detail). For example, in the educational professionals group, the theme "Directions to the enhancement of sexuality education" was followed up in the semi-structured interview with a question: "When you think of the current

relationships and sexuality education in your school/college, what are the things about it that could be changed/improved (if any) to make it more appropriate for your students (and here I would add the specific group of students [autistic, with ADHD, with ASD co-occurring with ADHD, NT] the educator worked with). In the group with caregivers, the theme "Approaches towards children's romantic relationships" was followed up in the semi-structured interview with a question: "Now, I would like to ask you about your child's romantic relationships' experiences...what can you tell me about them?". In the young people's group, the theme "Barriers to romantic relationships" was followed up in the semi-structured interview with a question: "Now, I would like to talk a little about your romantic relationships and dating experiences...when you think back, what can you say about these experiences?". I preferred to ask broader questions, as opposed to more specific ones due to the sensitivity of the topic. It was assumed that if participants wanted to share specific aspects related to their sexuality and romantic relationships, they would do so (and many of them did).

	Ed	ucational Professionals
Theme	Sub-theme	Example quotes
Concerns about students' romantic relationships	Lack of knowledge	"Struggling with concept of dating, unpredictability and emotions, can cause anxiety, depression and mental health." (Educator 10 spoke about students with ADHD) "The inability to express in a healthy way, wants, desires and feelings. Students may not be clear on what is expectable both physically and emotionally speaking." (Educator 11 about students with ASD co-occurring with ADHD)
	Vulnerability to exploitation	"Emotional (e.g., manipulation, gaslighting, ghosting.) Financial. Sexual. Modern slavery Self-neglect resulting from lowered self- esteem. Radicalisation and county lines mulling. Being pressured into drugs or substance misuse/abuse. Being lured into gangs." (Educator 7 about autistic students)

 Table 7. Key aspects identified in the open-ended questions in the Pilot Study.

		"Convince them to do something they don't want to do (running away from home, stealing, skip lessons, drink, use drugs" (Educator 5 about students with ADHD)
	Condition caused concerns	"Students with ASD may be more vulnerable to standing out to potential dating partners as different, mouldable and easier to control and make fun of." (Educator 11 about autistic students) "High impulsivity. Being overly and/or
		<i>inappropriately tactile."</i> (Educator 7 about students with ADHD)
Directions for the enhancement of sexuality education	Tailored sexuality education	"To meet individual students' difficulties, for example, communication, emotions, anxiety." (Educator 10 about autistic students) <i>"Programme to individualised to meet learners needs."</i> (Educator 10 about neurotypical students)
	Technology- enhanced sexuality education	<i>"We try to make the sessions as interactive as possible, not just relying on discussion or worksheets, but on debates, videos and music"</i> (Educator 7 about students with ADHD) <i>"videos of other young people - visual aids"</i> (Educator 3 about students with ASD co-occurring with ADHD)
	Collaborative sexuality education	"We currently have to gain parental consent. It allows us and the parents to all be consistent and use similar techniques and terminologies." (Educator 7 about autistic students)
		"Family/professional involvement." (Educator 11 about students with ASD co- occurring with ADHD)

Inclusion of	"understand about relationships and how
specific topics	to act appropriately in different relationships"
	(Educator 1 about autistic students)
	"We need to be more open and normalise
	discussing gender roles, power imbalances,
	pornographic habits and what "normal and
	healthy" sex and relationships look like."
	(Educator 7 about students with ASD co-
	occurring with ADHD)

Caregivers			
Theme	Sub-theme	Example quotes	
Approaches towards children's romantic	Optimistic approaches:	Desire for a romantic relationship: <i>"he really wants a girlfriend"</i> (Caregiver 1 about their autistic child)	
relationships	Pessimistic approaches:	Conduct challenges: "The stalking behaviour- I have had three girls contact me in the past concerned that he isn't getting the message." (Caregiver 9 about their autistic child) Rejection sensitivity: "If he likes someone, I think that he will just expect them to like him back. It worries me if they don't." (Caregiver 8 about their autistic child) Vulnerability to exploitation: "Unable to "read faces" makes my daughter vulnerable." (Caregiver 8 about their	
Divertieve for	Inclusion of	autistic child)	
Directions for the enhancement of sexuality education	Inclusion of specific topics	<i>"Include mental aspects of being in a relationship."</i> (Caregiver 2 of a child with ADHD) <i>"emphasis needs to be on the inter-personal navigation of relationships in education. Looking at communication skills in</i>	
		relationship, looking at reading body language." (Caregiver 5 of an autistic child)	
	Tailored sexuality education	"a chance to discuss concerns/questions in a smaller, safer setting where my son could drop masking would be great" (Caregiver 4 of an autistic child 4)	

	"whatever appropriate for special child" (Caregiver 1 of an autistic child)
Socially	"My child is nonbinary. This was never
inclusive	discussed in school, so they felt out of the loop
sexuality	and not represented."
education	(Caregiver 4 of an autistic child)

Young People		
Theme	Sub-theme	Example quotes
Barriers to romantic relationships	Internal barriers	Fear of being an inadequate romantic partner: <i>"I don't want to be a partner who is inconsiderate, or controlling, or obsessive, or manipulative. I don't want to scare people away or make them uncomfortable."</i> (An autistic young person 9)
		Fear of being misjudged: <i>"My behaviour sometimes comes across</i> <i>as flirting when I'm just being friendly; I don't</i> <i>always know the boundaries with other people."</i> (A young person with ASD co-occurring with ADHD 10) Fear of being oneself: <i>"Also, I try to supress typically autistic</i> <i>behaviours like stimming."</i> (An autistic young person 3)
		Fear of intimacy: <i>"I am really uncomfortable with physical intimacy, in fact I'm great at online dating but often interest is replaced by panic as soon as I meet the other person."</i> (A young person with ADHD 18)
	External barriers	Vulnerability to exploitation: "that they will take advantage of me, or gaslight/manipulate me" (A young person with ADHD 17) Lack of knowledge: "Not knowing when/how to initiate 'typical' romantic/sexual behaviours." (An autistic young person 3) Communication challenges:

		"Conversations felt like hopeless, exhausting labyrinths with traps around every corner. I was never understood, and I was never respected." (A young person with ASD co- occurring with ADHD 14)
Approaches towards sexuality education	Insufficiency of sexuality education	Deficiency in topics: <i>"It wasn't very extensive. It was basically</i> <i>just a few plain facts and details that I already</i> <i>knew, and I don't feel that I gained anything</i> <i>from it."</i> (A young person with ASD co-occurring with ADHD 14)
		Non-inclusive: "It should've been much more inclusive and taught same to everyone (ours was split by gender) always very centred on heterosexuality which was not helpful; concerning that they didn't teach everyone the same content (split by gender)." (A young person with ADHD 16)
		Unconducive environment: <i>"My classmates tended to be</i> <i>conservative-leaning and immature, making it an</i> <i>uncomfortable environment."</i> (An autistic young person 12)
		Poor delivery: <i>"The teachers were uncomfortable or unknowledgeable when it came to certain topics."</i> (An autistic young person 12)
		Inaccuracy of the internet resources: <i>"My concern is that we shouldn't have to</i> <i>go to the internet for that. It's hard to distinguish</i> <i>what is accurate and what is not."</i> (An autistic young person 13)
	Suggestions for the enhancement of sexuality education	Tailored sexuality education:"I think face-to-face teaching with theoption of individual, privatequestioning/discussion afterward would be nice.This way, the instructor is free to explain anddemonstrate however they need to, but studentsdo not feel pressured to reveal intimate/personalstruggles in a group setting." (A young personwith ADHD 15)

Accessibility of sexuality education: *"Something where we could easily find who to contact and for which issues."* (A young person with ADHD 18)

Participants were asked around ten open-ended questions during the semistructured interview. The findings from Study 1 (see Chapter III for details) and the pilot study have directly informed the development of the finalised guides for the semistructured interviews (see Appendix 9 for full question guides for semi-structured interviews).

#### **IV.5.** Participant Sample and Recruitment

The same three types of participants were recruited for each of the empirical studies: young people (autistic, with ADHD, with ASD co-occurring with ADHD, and NT), educational professionals, and caregivers. The sample size differed depending on the study. The Pilot Study) and 3 (surveys) aimed to recruit large pools of participants; Study 3 (interviews) did not require a large number of participants since its aim was to focus on the depth of understanding of the topic as opposed to generalisability of the results. The niche of the chosen sample (young people were required to have the diagnosis of ASD, ADHD and ASD co-occurring with ADHD, and be between 18-25 years old; caregivers were required to have children between 13-25 years old with any of these diagnoses, and educators required to work with students between 13-25 years old who had any of these diagnoses) needs to be taken into consideration. The age range of participants was consistent with previous similar studies (e.g., Margherio et al., 2021; Teti et al., 2019, Mackin et al., 2016). The logistics associated with the recruitment of these specific samples influenced the sample sizes in the specific studies.

After obtaining the ethics approval letter for the Pilot Study (HSR1920-073), the researcher started the recruitment on the 3<sup>rd</sup> of November 2020, for Study 2 (HSR1920-073) (see Appendix 6), the recruitment of participants began on the 19<sup>th</sup> of October 2021. The recruitment for Study 3 commenced on the 5<sup>th</sup> of August 2021 after having received the ethics approval letter for it (HSR1920-074) (see Appendix 7). Throughout the recruitment for all three studies, all types of participants were targeted in the same way. The researcher contacted (via email and phone calls) various schools and colleges, youth centres, Facebook groups and other organisations in the Greater Manchester area and in other regions in England and the UK. Some of them (e.g., Autistica, beyondautism.org.uk, bridgementoring.co.uk, autismtogether.co.uk, Adult ADHD/ASD community support group, Parents of Children with ASD/Asperger's [UK], ADHD, ASD And Everyone In Between, ADHD ASD PDA Support Group) agreed to share the information about the study to their service user.

#### IV.5.1. Participant Sample Study 2: Surveys

#### IV.5.1.1. Study 2: Young People

Eighty-two young people took part in the online survey. The data from six young people were removed as they did not meet the age criteria for the study. The remaining responses from 76 young people were analysed in the study. The majority were females (69.7%), then males (18.4%), and 11.8% identified as other (six were nonbinary, two were genderqueers, and one was gender fluid). Participants' age range was 18-25 years old (M= 21.49, SD=2.21). Many (65.5%) were of White ethnic background, 11.8% identified as Mixed/Multiple ethnic background, 11.8% identified as any Asian ethnic background, 11.8% as any Black ethnic background, and 3.9% as other. There were 18.4% participants who reported having a diagnosis of ASD, 28.9% reported having a diagnosis of ADHD, 14.5% reported having a diagnosis of ASD or ADHD, or ASD co-occurring with ADHD). Across the participants, the age range for receiving an ASD diagnosis was between three and 24 years old (M=16.40, SD=5.87) and the age range for receiving an ADHD diagnosis

was between one year and 25 years old (M=17.08, SD=7.40). The lowest level of participants' education was elementary (indicated by 1.3% of participants), then high school (6.6%), A-levels (64.5%), undergraduate degree (17.1%) and the highest was a postgraduate degree (10.5%). Many (82.9%) young people attended mainstream school/college, and 9.2% attended mainstream school/college with support. Some (1.3%) reported attending special needs school/college and 6.6% indicated other (e.g., boarding school, private).

#### IV.5.1.2. Study 2: Educational Professionals

Five educational professionals took part in the online survey. Forty percent worked with students between 13-18 years old, 20% between 18-25 years old, and 40% with students with other age groups (11-16 and 10-25). All educators reported teaching autistic students, 80% reported teaching students with ADHD, 60% students with ASD cooccurring with ADHD, and 20% with NT students.

#### IV.5.1.3. Study 2: Caregivers

Eighteen caregivers (89% mothers; 11% fathers) took part in the online survey. The participants' children's age range was between 13-24 years old (M=17.06, SD=3.36). Fifty percent of the children were males, 27.8% were females, 16.1% were reported as other gender (no examples provided), and 5.6% did not provide their child's gender. Many (88.9%) were of White ethnic background, 5.6% were identified as Mixed/Multiple ethnic background and 5.6% as Asian. Parents (33.3%) reported that their children had the diagnosis of ASD, 17.7% reported that their children had the diagnosis of ADHD, 33.3% reported that their children had the diagnosis of ASD co-occurring with ADHD, and 17.7% that their children were NT. The age range of children receiving a diagnosis of ASD was between four and 22 years old (M=11.92, SD=5.53), and the age range of children receiving a diagnosis of ADHD was between four and 15 years old (M=8.33, SD=3.77). The lowest children's education was high school (as reported by 44.2% of parents), then A-

levels (as reported by 22.2% of parents), postgraduate degree (reported by 11.1% of parents) and 16.7% of parents reported 'prefer not to say', and one (5.6%) did not provide the answer to it. Most children (as reported by 61.1% of parents) attended mainstream school/college, 16.7% attended mainstream school/college with support and 22.2% special school.

#### IV.5.2. Participant Sample Study 3: Interviews

#### IV.5.2.1. Study 3: Young People

Thirty-four young people between the ages 18-25 years and five months took part in the semi-structured interviews. Thirty-five percent identified as NT, 23.5% reported having a diagnosis of ASD, 29.5% reported having a diagnosis of ADHD, and 12% reported having a dual diagnosis (ASD co-occurring with ADHD). There were 62% females, 26% males and 12% other gender identities. Across the participants, the lowest level of education was GCSE (indicated by 17.5% participants), then A-level (41% participants), undergraduate degree (23.5% participants), and the highest level was postgraduate degree (15% participants). One participant (3%) did not indicate their education level. Many (94%) participants indicated attending a mainstream school/college and out of them 18% received support. Two participants (6%) did not provide information about their schools. Many (67.5%) identified as any White ethnic background, 17.5% as any Asian background, 9% as any other Mixed/Multiple ethnic background, one (3%) as any Black, and one (3%) as any other ethnic background. The age of receiving the diagnosis of ASD was between three years and two months and 24 years and six months, and one participant with a dual diagnosis did not provide the age of their ASD diagnosis. The age of receiving the diagnosis of ADHD was between seven years and six months and 21 years and seven months; one participant did not provide this information.

#### IV.5.2.2. Study 3: Educational Professionals

Nine educational professionals took part in the semi-structured interviews. One participant was disqualified as, although they worked in a school and provided informal sexuality education to young people, their job description was a health professional. Fifty percent were teachers (one of them a trainee), 25% were teaching assistants, one (12.5%) was a speech and language therapist (they were included in the study as one of their main roles was to provide sexuality education to students in a special needs school including ND students), and one (12.5%) worked as an educator in the youth centre. Some (37.5%) worked with students between 18-25 years old, 25% with students between 13-25 years old, one (12.5%) between 13-18 years old, one (12.5%) between 11-19 years old, and another one (12.5%) between 11-16 years old. Many (75%) participants reported working with all groups of young people (with ASD, ADHD, ASD cooccurring with ADHD, and NT), and 25% worked only with ND groups of young people (with ASD, ADHD, and ASD co-occurring with ADHD). Some (37.5%) participants indicated working in mainstream school/college and 37.5% in special needs school/college (nonresidential). One (12.5%) participant indicated working in special needs school/college (residential) and special needs boarding school/college/residential special school/college, and another one (12.5%) in an LGBTQ+ youth centre. Participants reported having various levels of experience working with ND young people ranging from five months to 19 years. They also taught various numbers of ND students on an annual basis (from September to September) ranging from three to 110 students.

#### IV.5.2.3. Study 3: Caregivers

Seven caregivers (85.5% mothers; 14.5% fathers) took part in the semi-structured interviews. One (14.5%) participant was a caregiver of a child with ADHD (the diagnosis was received at the age of 19 years old), 28.5% were caregivers of autistic children (the diagnoses were received at the age of seven [one child] and 15 years old [another child], and 57% were caregivers of NT children. Most (57%) children were males, 28.5% were females and one (14.5%) was a transgender female; they were all from White ethnical backgrounds. Two (28.5%) children were between 18-25 years old, and their highest education was A-level, and 71.5% of them were between 13-18 years old, and their

highest education was GCSE- level (one was in progress at the time). All children attended mainstream schools, and one received support.

#### **IV.6.** Materials

#### IV.6.1. Materials Study 2: Surveys

Participants completed an anonymous short online survey. These surveys were adapted from the surveys which were designed for the pilot study. The surveys were designed based on the gaps in the current research (e.g., Dewinter, 2017; Hannah & Stagg, 2016; Teti et al., 2019). For example, the surveys investigated the topic of sexuality education in young people with ADHD and ASD co-occurring with ADHD, which was absent from the current literature. Additionally, given that there was very limited research on sexuality education and romantic relationships in ND young people from the perspectives of educational professionals, the survey (for educators) addressed that gap. The survey (for caregivers) focused on investigating the type of support (e.g., professional, school-based, etc.) that caregivers would like to receive (if any) to feel well prepared to discuss sexuality-related subjects with their children (see, e.g., Mackin et al., 2016; Masoudi et al., 2022; Teti et al., 2019). Further details regarding the gaps that Study 2 addressed are provided in Chapter III. Some questions in the surveys were adapted from existing scales on sexuality (e.g., Snell et al., 1993; Talbot & Langdon, 2006; Wolfe et al., 2001), others were specifically designed to cover important gaps in the current literature (e.g., see Allely & Creaby-Attwood, 2016; Ballan, 2012; Holmes & Himle, 2014; Tissot, 2009) (see Appendix 4 for detail on the design). Each group's survey took approximately 10-15 minutes to complete.

#### IV.6.1.1. Study 2: Young People

The short survey for young people consisted of 22 questions (see Appendix 8), which asked participants about their romantic relationship experiences and sexuality

education. Most questions required participants to tick one response from short lists of responses, for example, question Q11:

# **11.** Do you have any concerns about dating or becoming romantically involved with another person?

Yes

No

I don't know

I'd prefer not to say

All questions provided participants with the answer choice: "I'd prefer not to say". There were no open-ended questions in this survey.

# IV.6.1.2. Study 2: Educational Professionals

The short survey for educational professionals consisted of 26 questions (see Appendix 8), which asked educational professionals about their perspectives on their students' romantic relationship experiences and sexuality education. Many questions in the survey were divided into four categories: 1) NT students, 2) students with ASD, 3) students with ADHD, and 4) students with ASD co-occurring with ADHD, and respondents were asked to provide short answers to these questions, for example, question Q7:

7. Have your students, in the following categories, ever talked to you about their dating or romantic experiences? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperact ivity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperact ivity Disorder
Yes				
No				
l don't remember				

I'd prefer not to		
say		

All questions in the survey provided participants with the answer option "I'd prefer not to say". There were no open-ended questions in this survey.

#### IV.6.1.3. Study 2: Caregivers

The short survey for caregivers consisted of 30 questions (see Appendix 8) asking caregivers to provide their perspectives on their children's romantic relationship experiences and sexuality education. Many of the questions in the survey required short answer options and participants were asked to tick one response, for example, question Q13:

13. Do you have any concerns about your child's ability to recognise that someone likes/is attracted to them or not?

Yes

No

I don't know

I'd prefer not to say

All questions had an answer choice "I'd prefer not to say". There were no openended questions in this survey.

#### IV.6.2. Materials Study 3: Interviews

Participants were given the choice to have the semi-structured interview conducted via a phone call (recorded on a Dictaphone) or online (via Microsoft Teams) and all participants opted for the latter mode. Participants were also given the choice of having their camera on or off during the recording, whichever way would make them feel more comfortable. The researcher was also aware that some (especially ND) participants may need longer time to process the information during the semi-structured interview (Mason et al., 2021), hence she was conscious of allowing participants enough time where there was silence before re-phrasing the question or following with further questions. Participants were also given a choice of seeing the guide of the semistructured interview questions in advance, permitting them time for preparation (if required), as opposed to, potentially, making them feel anxious to answer questions "on the spot". Participants were additionally given the opportunity to meet the researcher (online, via Microsoft Teams) in advance to discuss the study's details if required, this could make some of them feel more familiarised with the researcher and the study and thus, possibly, less anxious during the semi-structured interview.

#### IV.6.2.1. Study 3: Young People

Young people were asked open-ended questions in the semi-structured interviews. Examples of questions for young people for semi-structured interviews: "How useful is/was the relationship and sexuality education you receive/received in terms of giving you the right tools and information for building and maintaining romantic relationships? What suggestions/recommendations can you give (e.g., providing technology-based sexuality education such as videos, applications etc., tailoring sexuality education) for making these specific aspects more useful?" (see Appendix 9 for the semistructured interview guide).

#### IV.6.2.2. Study 3: Educational Professionals

Educational professionals were asked open-ended questions in the semistructured interviews. Examples of the questions in the semi-structured interviews are: "Can you start by telling me about your involvement with delivering relationships and sexuality education in your school/college?; What relationships and sex topics do you teach your students?; Which of these topics do you think are most useful for your

students in terms of providing them with tools and information important for building and maintaining romantic relationships?" (see Appendix 9 for the interview guide).

Note: In this study, no educational professionals chose to participate in focus groups.

#### IV.6.2.3. Study 3: Caregivers

Caregivers were asked open-ended questions in the semi-structured interviews. Examples of questions include: "What can you tell me about your communication with your child on relationships and sex topics? What topics related to relationships and sex do you discuss with your child? How easy is it for you to talk to your child about relationships and sex? If it is not easy, how this could be helped (e.g., the support provided by GP, psychologist, counsellor, therapist, child's school/college, etc.)"? (see Appendix 9 for the semi-structured interview guide).

#### **IV.7.** Procedure

#### IV.7.1. The Pilot Study; and Study 2: Surveys

In the Pilot Study, participants were asked to complete an anonymous online survey that took 15-30 minutes to complete. In Study 2, participants were asked to complete an anonymous short online survey that took 10-15 minutes to complete. The designs of both surveys are provided in the Materials section in this chapter (see Appendix 4 for details).

#### IV.7.2. Study 3: Interviews

The semi-structured interviews were conducted online via Microsoft Teams (in which case they were also recorded on Microsoft Teams). Prior to the interview,

participants were given a consent form (see Appendix 5 for an example of a consent form; all consent forms for all groups of participants for both studies are available in the appropriate ethics forms), which was sent to them via the email address that potential participants used to contact the researcher expressing an interest in taking part in the study. They were also provided with a Participant Information Sheet (PIS) (see Appendix 5 for an example of a PIS; all PISs for all groups of participants for both studies are available in the corresponding ethics forms). Participants were informed in the PIS that they could request for any data collected from their participation in the research to be removed within three weeks from taking part in the study and were also informed that they did not have to provide any reason for doing so. Participants were provided with a short demographic questionnaire, which they were asked to fill in, sign electronically and send back to the researcher (see Appendix 12 for an example of the form; all forms for all groups of participants are available in the qualitative research ethics form). Participants were also given the choice of receiving the interview question guide in advance. This was especially useful for ND participants who often accepted that offer since becoming familiarised with the questions prior to the interview allowed them extra time to process the information and also decreased the anxiety levels of unknown situations. The PIS also included information regarding signposting to relevant support services in case a participant required a mental health support due to experiencing any feelings of distress caused by the research. On the day of the interview, prior to the recording, participants were given space to ask questions about the study. Participants were initially asked some generic questions to make them feel more comfortable (e.g., How's been your day?). This was excluded from the thematic analysis.

Across the groups of young people, the recordings' duration differed. In the group of NT young people, the recordings lasted between 00:14:03 and 00:32:50, and the total timing of the recordings was 04:53:49. In the group with ADHD, the recordings lasted between 00:23:35 and 00:53:41, and the total timing of the recordings was 05:36:11. In the autistic group, the recordings lasted between 00:10:09 and 01:12:34, and the total timing was 02:47:15. In the group of young people with ASD co-occurring with ADHD; the recordings lasted between 00:35:15, and the total timing of the recordings was 01:51:17. The total timing of the recordings in all four groups of young people was

15:07:32. The recordings in the group with caregivers lasted between 00:16:38 and 01:05:53, and the total duration of the recordings was 03:40:29. The recordings in the group with educational professionals lasted between 00:21:13 and 00:35:01 and the total duration of the recordings was 03:53:55.

The first few interviews were transcribed manually, and then Microsoft Teams transcriber or Otter transcriber (otter.ai, 2023) were used to provide the transcription of the rest of the interviews. Neither of the transcribers was very precise in the transcriptions they provided; therefore, I had to check each of the transcriptions and make the appropriate corrections. I also removed a dialogue in one of the transcriptions which came from external disruptions and was irrelevant to the data and the topic (since the interviews were conducted online, it happened that someone knocked on the interviewee's door, they apologised, answered to the other person, and then returned to the interview; this information was deleted from the transcription). Each participant was assigned a specific letter and number (young people were allocated the letters YP and each received a specific number, educational professionals were allocated a letter E with a specific number, and caregivers a letter C with a specific number). Additionally, any potential identifiers from all extracts from the interviews included in this project were anonymised or removed.

#### **IV.8. Ethics**

All the empirical studies presented in this thesis obtained approval from the University of Salford Research, Enterprise and Engagement Ethical Approval Panel. The pilot study received approval on the 3<sup>rd</sup> of November 2020 (HSR1920-073; see Appendix 6). Study 2 (surveys) (the amendment to the questionnaires) was approved on the 12<sup>th</sup> of January 2021 (see Appendix 6). Study 3 (interviews) received ethical approval on the 5<sup>th</sup> of August 2021 (HSR1920-074; see Appendix 7). The empirical studies were conducted according to the Code of Ethics and Conduct (the British Psychological Society [BPS], 2018) and Ethics Guidelines for Internet-Mediated Research (BPS, 2017).

The Pilot Study and Study 2 were conducted via anonymous online surveys. In the qualitative study (Study 3), I kept a list of all participants' names and provided each of them with a specific letter and number (as described earlier). I was the only person who knew which number was allocated to which participant; through that system, I ensured that each participant's identity remained pseudo-anonymous and confidential. The names and contact details of each participant are stored on my private computer and on the University OneDrive, which are protected by passwords known only to me. Participants were informed in the Participants Information Sheet (PIS) and Consent Form (CF), and I also reminded them prior to the interviews, that they were free to withdraw their data from the research within three weeks of their participation in the interviews. After three weeks, the data analysis would have begun and no removal from the study was possible. Participants could request their withdrawal by emailing me, any data collected from those participants would then be destroyed from my files. However, none of the participants requested to have their data removed from the research. Participants were asked to sign the CF prior to participating in the interviews. As soon as possible after the recording, the recordings were transferred into my private computer and to the University OneDrive and saved. Consequently, all the recorded data was deleted from Microsoft Teams. The saved data on my private computer and university OneDrive was encrypted to protect against unauthorised access.

There was a possibility that, due to the sensitivity of the research question, some participants could experience some discomfort, for example, possible feelings of distress from a recollection of unpleasant memories, possible feelings of sadness when they would be discussing their child's/ student's /their own negative romantic relationship experiences or any other problems related to sexuality and relationships topics. I also considered that some participants in the group with educational professionals and caregivers might feel potential objections to talking about the sexuality of another person (child/student). In the PIS, as well as at the beginning of the interviews, participants were therefore informed that they would not have to answer the questions which they may regard as too personal or sensitive, or simply they may refuse to answer them for any other reason. Participants were also informed in the PIS about the available support they may receive in case of any disclosure of confidential information, which

may potentially have legal consequences (they were offered to contact e.g., STOP IT NOW! [https://www.stopitnow.org.uk/], which is a charity in the UK dedicated solely to reducing the risk of children being sexually abused).

Participants were informed in the PIS about the confidentiality of all the information disclosed during the interviews; they were informed that everything which was discussed would remain strictly confidential according to the Data Protection Act 1988 and The University of Salford General Data Protection Regulation (GDPR). Participants were given plenty of time to make a conscious decision about their participation in the research.

Participants were also informed that they could have a little break during the interviews whenever they felt they needed one. Then, depending on how they would feel, they were given the choice of resuming the interview or withdrawing from further participation in it. If necessary, they would be encouraged to contact independent support services for NT individuals, autistic individuals, individuals with ADHD, and ASD co-occurring with ADHD (e.g., National Autistic Society Manchester; UKAP The UK ADHD Partnership; Manchester City Council: Sexual Health). Nonetheless, there were no cases where any participants asked for a break during the interview or wanted to withdraw from it, nor where I had to help or advise participants on receiving support.

Considering that the project involved neurodivergent individuals, participants were additionally offered an interview question guide in advance to ensure they had enough time to process the information. Many participants across all groups found that offer useful and requested to receive the guide in advance. Participants were also encouraged to contact me to discuss the study prior to the scheduled interview, ask any potential questions they could have regarding it, or simply have an informal chat with me before the interview to familiarise themselves with me. This option was given to all participants in the hope that this could potentially help them feel more relaxed during the interview and hence feel open to discussing such sensitive topics as sexuality and romantic relationships. Nevertheless, none of the participants took advantage of this offer.

#### **IV.9.** Data Analyses

#### IV.9.1. The Pilot Study; and Study 2: Surveys

The quantitative part of the surveys in the pilot study and Study 2 were analysed using the Statistical Package for Social Scientists (SPSS). The open-ended-questions in the surveys in the pilot study were analysed by content analysis (CA). CA is a systematic and rigorous research method that may be utilised in quantitative, qualitative and mixed modes frameworks of research (White & Marsh, 2006). CA has been utilised in previous research in psychology to analyse open-ended questions in the questionnaire (e.g., Ricci-Cabello et al., 2017). There are four elements of CA: 1) sampling text (selecting all relevant information; 2) unitising text (classifying words or proportions and using quotes or examples); 3) contextualising (explaining their meaning with regards to the whole text); and 4) having a specific topic question in mind (Krippendorff, 2004). These four steps have been followed while conducting CA of the open-ended questions of the questionnaires. NVivo software was also applied to conduct CA.

#### IV.9.2. Study 3: Interviews

#### IV.9.2.1. Choosing a Qualitative Method: Thematic Analysis

There are a few qualitative research data analysis methods that are commonly used in psychology, and which were considered to be applicable to answer the research questions regarding romantic relationship experiences and sexuality education in young people from the perspectives of young people, educational professionals, and caregivers. For example, Grounded Theory (Oktay, 2012) was one of them; however, it was rejected since one of its assumptions is that there is an objective truth that governs social processes from which the theory might be generated (Willing, 2013). This contradicted the epistemological position of a critical realist which the researcher has adopted in this project. Conversation analysis (Goodwin & Heritage, 1990) was also rejected due to focusing not only on the content of what participants say but also on the context of how

and why they say things including the verbatim (e.g., pauses, filler words, and stray utterances such as 'um...'); additionally, the details regarding the setting or context of the experience is also essential (Ollerenshaw & Creswell, 2002). Due to the research topic investigating romantic relationships and sexuality education, the researcher was more interested in the content of the messages that participants were trying to convey in their narratives, as opposed to paying attention to how they did it, which in the researcher's view would not be useful in providing answers to the research questions. Additionally, the focus of the research was not on participants' 'stories' but on the specific aspects related to the research topic. Another method considered was Interpretative Phenomenological Analysis (IPA) (Pietkiewicz & Smith, 2014); however, it was also rejected since its primary focus is to direct description of a particular situation or an event as it is lived through by an individual (Cypress, 2018). Another important aspect of IPA is the focus on using language as an essential representation of an experience (Willig, 2013). The purpose of this research, however, was to identify similarities and differences across participants in terms of their romantic relationship experiences and sexuality education, as opposed to eliciting a comprehensive account of an individual's experience. As such, I concluded that Thematic Analysis (TA) (Braun & Clarke, 2006, 2013, 2014, 2021, 2021a, 2022) would be the most suitable option for answering the research questions investigated in Study 3 (interviews).

TA enables the analysis and interpretation of patterns across the dataset, which entails a systematic process of data coding in order to develop themes (Braun & Clarke, 2006, 2013, 2014, 2021, 2021a, 2022). TA may be applied to address a variety of qualitative research questions (Braun & Clarke, 2021). The flexibility that TA offers (Braun & Clarke, 2021) made it the best-fitting approach to exploring romantic relationships and sexuality education in young people (ND and NT) from the perspectives of three groups of participants. Participants did not provide the researcher with a clear and direct reflection of reality. They, however, brought a located interpreted reality of their worlds (data), which later was interpreted through the lens of social constructs based on the background literature on the topic the researcher had read.

The researcher plays an active role in knowledge production in this form of data analysis (Braun & Clarke, 2021). Braun and Clarke (2021, 2019) propose that in TA, codes

are recognised as the representation of the researcher's analytical interpretation of the data. It is thus fully acknowledged and even expected, that the data may not be reproduced by another researcher (although this may possibly occur). Hence the researchers who utilise TA are discouraged from attempting to offer accounts of "reliable" coding by providing multiple coders in order to pursue consensus on the coding or using Cohen's Kappa values. Instead, the researchers are encouraged to offer reflective and careful engagement with their data analytic process (Braun & Clarke 2021, 2019).

Braun and Clarke (2013, 2021) deem that this method of data analysis may provide an insightful interpretation of the outcomes. They (Braun & Clarke, 2021) propose a six-phase technique to investigate results: 1) familiarisation with the data; 2) coding; 3) searching for themes; 4) reviewing themes; 5) defining and naming themes; 6) writing up. The researcher followed the proposed six phases. The reflexive nature of the TA allowed the researcher to move between the different phases in a spirit of interrogation (Terry et al., 2017) and the NVivo software, which was also used to conduct the analyses for each group of the participants, was a very helpful tool in this respect.

During the familiarisation process, the researcher was both listening to the semistructured interviews, as well as reading them a few times. She started making initial reflective notes on the first impressions she got from them. The researcher additionally asked herself a few questions, for example, she tried to understand what stood out in the data on first and then closer reading. She was trying to understand participants' perspectives and why they made sense of their experiences in the particular ways that they described; how the researcher would feel if she was in their position; what type of world has been revealed through their experiences etc. Additionally, the researcher tried to understand how the outside world (social structure) influenced the participants' sense-making (Sims-Schouten et al., 2007) when they were discussing their romantic relationship experiences and sexuality education. The researcher's initial analytic observations were shaped through semantic meanings/ideas underlying participants' narratives, which were later identified as codes. A code characterises a singular idea that is captured within the dataset and relevance to the research question (Braun & Clarke,

2021). For example, the following extract from interviews with young people was coded as *the internet- sex educator* (a semantic code):

"[...] a lot of my sort of education in that respect came from like the internet." (YP, 23 autistic genderfluid/non-binary trans man)

It was a semantic code as it described exactly what the participant said, the researcher assigned that extract as a code that was understandable for the researcher and useful later during the process of developing themes. As the researcher progressed with the coding phase, she started to recognise patterns in the participants' narratives in relation to the literature she had read, for example, heteronormativity (Javid, 2018) and "hetero-activism" (Nash & Browne, 2021), which then helped the researcher to interrogate the data through the prism of those social constructs. Consequently, the codes which were developed were shaped by the participants' narratives, as well as the background knowledge the researcher had regarding the subject; these codes were latent codes. For example, in the interviews with young people, the following extract was coded as *heretoactivism* (a latent code):

"[...] it wouldn't be appropriate to sort of dive into LGBT education because it might offend parents [...]" (YP24 with ASD)

The researcher created both semantic and latent codes, which, at a later phase, were linked to various concepts that were distinguished in the narratives. Concepts were the broad/umbrella meanings/ideas which the researcher linked/ grouped into one meaning that was significant in the data set and relevant to the research questions (Braun & Clarke, 2021). For example, during conducting the analysis for young people (the group with ADHD), the researcher grouped the following codes into a concept: *societal attitudes towards sexuality* 

- attitudes towards non-heterosexuality
- body acceptance should be normal

- cultural stigma regarding sexuality
- multiple sexual experiences
- non-heterosexuality is a sin in the eyes of God
- religious culture and sex ed
- societal attitudes towards LBGT
- societal 'normality' regarding romantic relationships

Subsequently, the researcher moved to the next phase when she started to generate initial themes. A theme indicates a pattern that repeats across participants' narratives, and which captures something that is significant in the dataset and relates to the research question (Braun & Clarke, 2021; Maguire & Delahunt, 2017). During this phase, the researcher began to identify patterned (things that kept repeating) meanings across the whole dataset to help inform what meanings were salient in the whole dataset. From the concepts that the researcher identified, she eventually developed themes and subthemes (if relevant) that were salient to the data set and relevant to the research questions. For example, in the analysis of the interviews with educational professionals, from the following concepts, the researcher developed a final theme with some subthemes:

- Limited topics in teaching
- Non-inclusive of LGBTQ+ sexuality
- Topics specific to neurodivergent students Rejection
   Inappropriate behaviours
   Distressing topics
   Topics related to LGBTQ+ sexuality
   Need for signposting
- Existing approaches to teaching sexuality education
   Hands-on exercise
   Application of technology
   Danger of utilising the internet

 Teaching approaches specific to neurodivergent students
 Importance of differentiating the adaptation of teaching for autistic students and students with ADHD
 Utilising specific programmes designed for autistic students
 Role-playing
 Lack of tailored resources

The final theme with subthemes developed from the above concepts: Theme 1. Inadequacy of school-based sexuality education Subthemes:

- Essential topics specific to neurodivergent students
- Existing approaches to teaching sexuality education

In TA, the salience of a theme does not necessarily mean the number of codes or data items that inform it, but what is important is that the pattern of codes and data items convey information that is valid for the research question (Byrne, 2022). The initial themes or concepts the researcher identified captured broader meanings of the data. Next, the initial themes were reviewed; during this phase, the researcher was going back to the dataset and the codes and checked whether the themes would deliver the salient message which was conveyed through the participants' narratives. Then, the researcher progressed to the next phase, during which she would check the themes again and check whether the story portrayed through them would fit into the overall story that came through the participants' narratives in the whole data (separate examples of the specific phases of the analysis for each group of the participants are provided in Appendix 11). The researcher also had to establish the order in which she would report the themes. As suggested by Braun and Clarke (2021), themes should provide a logical and meaningful narrative of the dataset. Where appropriate, themes could build upon previously reported themes in order to produce a coherent story of the dataset. Based on this, the themes were reported in logical order so as a whole, they could provide a meaningful and salient presentation of the dataset. That means that the researcher started the presentation of the themes with participants' perceptions of the societal attitudes toward sexuality since these attitudes influence both young people's sexuality education in their

schools/colleges, as well as discussions on the topic with their parents. Then participants' perceptions of sexuality education in educational institutions were discussed, followed by their suggestions about providing improvements to it. Afterward, the themes referring to romantic relationships were discussed since the quality of the sexuality education offered to young people contributes to the outcomes of their romantic relationship experiences. Finally, the researcher presented potential avenues of support young people may want to receive to improve the outcomes of their romantic relationship experiences, as well as support/training educators and caregivers may want to receive to feel more equipped at providing sexuality education to the young population.

The following section will offer some glimpses of the researcher's reflexivity during conducting the interviews for Study 3.

#### IV.9.2.1.1. Reflexivity in TA

Reflexivity is an important aspect of conducting TA (Braun & Clarke, 2021). Nowell (2017, p.3) describes that a reflexive journal is a *'self-critical account of the research process.'* In line with this, I kept a reflexive journal during the whole process of conducting Study 3 of this project. In this journal, I reflected upon all phases of TA (the detailed information of the phases I followed in conducting TA is discussed in section IV.9.2.1). In this section, I offer a brief account on the process of interviewing NT young people including a reflection about completed interviews with this group (I wrote separate reflective accounts for each group of participants included in this project [NT young people, autistic young people, young people with ADHD, young people with ASD co-occurring with ADHD, educational professionals, and caregivers]). NT young people were the first group of participants I interviewed.

Reflecting on the process of interviewing participants (NT young people)

Of all the participants that took part in this project, NT young people were the first group of participants with whom I conducted the first interviews and thus I would like to share some reflections upon this experience.

In general, I felt that the interviews went well. I managed to obtain rich data on the topic. While listening to the recordings, there were some things I liked about myself as an interviewer, for example, at times I would paraphrase what a participant said in order to ensure my understanding was correct (to avoid any potential misinterpretation of the given information). I also liked the fact that I did not stick rigidly to my interview guide, I would follow up with additional questions if a participant mentioned something which I found interesting and useful to my data collection. However, I would not ask further questions about things that appeared unappealing. Reflecting upon this, I think it could have been useful to follow up on all the aspects mentioned by participants, irrespective of whether on the surface they appeared not important, as they actually might have provided some additional useful information. I will make sure to remember this when conducting further interviews.

Another feature I would like to reflect upon is the way I was asking questions during the interviews. Since sexuality is a very sensitive topic, I was always trying to be cautious when probing deeper into some aspects of sexuality mentioned by a participant. I remember one situation when a participant was sharing their experiences about learning about sexuality. I was interested in fining out whether the internet was a useful source of knowledge for that participant and consequently, I followed up with a question about it. I was surprised by the participant's defensive response to my question. Afterward, I realised that I must have asked that question in the way that it may feel to the participant as I was trying to judge them for using the internet as a learning tool, which obviously was not the case. This made me appreciate the sensitivity of the topic even more and after that experience, I was much more careful of the way I was wording my questions (which may be a very tricky task when you are on the spot trying to probe participants' answers deeper).

#### Reflecting on the finished interviews with the NT group

Reflecting upon conducted interviews with a NT group of young people, I am grateful that those young people felt open to talking to me about their experiences with sexuality education, as well as their romantic relationships. Especially, I feel humbled and truly grateful for the openness that some of those young people showed when sharing their romantic relationship experiences. I was aware that they did not know me, I was

just a researcher, yet they still felt they could be open in my presence and share intimate events from their romantic relationship experiences with me. To be honest, when I think about it, I am not sure how much information I would like to/could share about my own experiences when talking to someone I would not know. Therefore, I am particularly grateful and admire all those participants for their honesty and courage.

Having said that, not all participants found it easy to discuss their sexuality during the interview. They obviously wanted to take part in the study as they contacted me about it and arranged an interview with me. However, during the interview, I was under the impression that some of them did not really want to share their romantic relationship experiences. I understand that sexuality is a very sensitive topic, and it is not easy to discuss it with someone you do not know. Having this in mind, when designing the study, I gave all participants the option to meet with me prior to the interview. By creating this option, I was hoping to provide participants with space to ask any potential questions they may have and also to allow them to familiarise themselves with me; I hoped that might help them feel more at ease and perhaps more open during the interview. Unfortunately, none of the participants used that option, and none of them asked me any questions regarding the study before the scheduled interview. Possibly none of the participants felt the need for such a meeting or perhaps they might have thought about it but due to a lack of time, they decided not to take upon that option. Despite this, I felt extremely grateful to each of the young people in this group who agreed to take part in the study. Even though some of the participants did not appear to be as open as others when discussing their experiences, they all provided very useful and important information on the topic. Each participant's views were extremely important to me.

#### **IV.10.** Conclusion

This chapter provided detailed information related to the design of the empirical studies of this project. It identified two methodological approaches that underpin the research, namely, the quantitative design based on questionnaires, and the qualitative design based on semi-structured interviews. The rationale behind choosing these two

approaches was also offered. The participant sample and recruitment for each of the empirical studies conducted in this project were additionally discussed. The researcher's ontological and epistemological positions relating to the conducted research were also introduced highlighting the importance of this project as a vehicle for giving young people space to voice their perceptions regarding sexuality education and romantic relationship experiences (the justification for the need for this voice was discussed in Chapters II and III). In this chapter, the researcher additionally provided the information regarding ethics including aspects related to vulnerability and ethical sensitivities of the studies. This section was concluded with a further account of the researcher's reflexivity (an introduction to it was provided in Chapter I).

The following chapter will focus on providing the findings of the empirical studies of this project (Study 2 and Study 3) from the perspectives of three groups of participants: young people, educational professionals, and caregivers.

#### **Chapter V: Findings**

#### V.1. Chapter Overview

This chapter provides findings from empirical studies conducted in this PhD project. The findings are presented according to the participant groups; first, the findings from Study 2 (surveys) and Study 3 (interviews) from young people, then from educational professionals, and finally from caregivers. This chapter is summarised with a brief conclusion.

# V.2.1. Findings from Young People

# V.2.1.1. Study 2 (Surveys)

The survey for young people consisted of 22 questions. The data were analysed by descriptive statistics (which are provided in Chapter IV), inferential statistics, as well as the calculations of frequencies. The analysis is provided in Tables 8, 9, and 10.

Table 8 provides analysis from the survey with young people; specifically, from each group separately (group with ASD, group with ADHD, group with ASD co-occurring with ADHD, and NT group) and in the part shadowed by light grey, from ND group (combined groups [with ASD, ADHD and ASD co-occurring with ADHD]), and NT group.

**Table 8.** Young people's "Yes" responses to questions from the survey.

# Young people (N=76, 100%)

Question	Young people with ASD (18.4%)	Young people with ADHD (28.9%)	Young people with ASD co- occurring with ADHD (14.5%)	NT young people (38.2%)	Chi- square test results	ND group (61.8%)	NT group (38.2%)	Chi-square test results
Have you ever dated someone or been	Present	Present:	Present:	Present:3	-	Present:	Present:	-
in a romantic relationship?	: 17.9%	38.5%	10.3%	3.3%		55.3%	44.8%	
	Past:	Past:	Past: 4.5%	Past:		Past:	Past: 34.5%	
	18.2%	31.8%		45.5%		25.5%		
Have you ever experienced holding hands with someone?	16.4%	30.1%	15.1%	38.4%	-	95.7%	96.6%	-
Have you ever experienced hugging/cuddling with someone?	17.8%	30.1%	13.7%	38.4%	-	95.7%	96.6%	-
Have you ever experienced kissing someone on the lips?	17.9%	32.8%	11.9%	37.3%	-	89.4%	86.2%	-
Have you ever experienced touching/petting private parts of the body with someone?	18.0%	34.4%	11.5%	36.1%	-	83.0%	75.9%	-
Have you ever experienced having sexual intercourse with someone?	17.9%	37.5%	8.9%	35.7%	-	76.6%	69.0%	-

Do you have any concerns about dating or becoming romantically involved with another person?	19.0%	23.8%	21.4%	35.7%	-	57.4%	51.7%	-
Do you find it difficult to recognise whether another person is trying to show you that they like/are attracted to you or not?	26.1%	32.6%	15.2%	26.1%	-	72.3%	41.4%	-
Do you have any concerns about exhibiting behaviours that may be considered inappropriate when trying to show another person that you like/are attracted to them?	20.0%	32.5%	22.5%	25.0%	-	63.8%	34.5%	-
Have you got any concerns about how to recognise whether your dating or romantic relationship is healthy or not?	20.0%	40.0%	15.0%	25.0%	-	63.8%	34.5%	P=.028*
Do you feel that you may be more vulnerable, than other people your age, to being abused by another person/your partner while dating/ in a romantic relationship?	22.0%	31.7%	19.5%	26.8%	-	63.8%	37.9%	-
Have you ever experienced cyber- bullying when online dating?	14.3%	50.0%	0.0%	35.7%	-	19.1%	17.2%	-
Do you have any concerns about learning about sexuality, dating, and romantic relationships from the internet?	25.8%	25.8%	12.9%	35.5%	-	42.6%	37.9%	-
Do/Did you have sexuality education at your school/college?	24.1%	24.1%	15.5%	36.2%	-	78.7%	72.4%	-

Have you been taught about contraception (e.g., condoms, contraceptive pills, etc.)?	20.9%	28.4%	13.4%	37.3%	-	89.4%	86.2%	-
Have you been taught about sexually transmitted diseases (STDs)?	24.5%	26.5%	14.3%	34.7%	-	68.1%	58.6%	p=.402
Have you been taught about not making important decisions about sexual activities while affected by alcohol or drugs?	20.5%	30.8%	15.4%	33.3%	p=.845	55.3%	44.8%	p=.374
Have you been taught about hygiene (e.g., washing genitals)?	17.6%	20.6%	23.5%	38.2%	p=.172	44.7%	44.8%	p=.990
Have you been taught about menstruation (menstrual periods)?	19.4%	29.0%	12.9%	38.7%	-	80.9%	85.7%	-
Have you been taught about understanding healthy/unhealthy relationship?	27.3%	18.2%	22.7%	31.8%	-	31.9%	24.1%	-
Have you been taught about recognising abuse in a relationship?	27.3%	22.7%	22.7%	27.3%	-	34.0%	20.7%	-
Have you been taught about how to deal with sexual abuse?	27.8%	27.8%	27.8%	16.7%	-	32.6%	10.3%	-
Have you been taught about reproduction (pregnancy)?	21.2%	27.3%	13.6%	37.9%	-	87.2%	86.2%	-
Have you been taught about the consequences of getting pregnant?	18.8%	27.1%	12.5%	41.7%	p=.817	59.6%	69.0%	p=.410
Have you been taught how to deal with a romantic rejection?	33.3%	33.3%	33.3%	0.0%	-	6.4%	0.0%	-
Have you been taught about dating?	55.6%	11.1%	11.1%	22.2%	-	14.9%	6.9%	-
Have you been taught about marriage?	33.3%	11.1%	22.2%	33.3%	-	12.8%	10.3%	-

Have you been taught about having children?	30.0%	20.0%	25.0%	25.0%	-	31.9%	17.2%	p=.158
Have you been taught about the consequences of watching pornography?	27.3%	36.4%	18.2%	18.2%	-	19.1%	6.9%	-
Have you been taught about the consequences of watching IIOC?	31.6%	31.6%	10.5%	26.3%	-	29.8%	17.2%	-
Would technology-based support (e.g., particular applications, devices, videos, etc.) be beneficial for you in terms of supporting your learning about sexuality, dating, and romantic relationships in your school/college?	15.6%	31.1%	13.3%	40.0%	-	57.4%	62.1%	p=.385

- Blank cell indicates that a reliable Chi Square result could not be calculated.

\*Significant difference was observed between the ND and NT groups (p < 0.05).

The difference was non-significant between the ND and NT groups (p > 0.05).

The Chi-square test results were non-significant for all questions from the survey when comparing the four groups of young people (with ASD, ADHD, ASD co-occurring with ADHD, and NT). Therefore, the three groups (with ASD, ADHD, and ASD co-occurring with ADHD) were combined into one ND group. Consequently, the outcomes of the survey's questions were compared between the ND and NT groups. The results of the Chi-square test for ND and NT groups were also non-significant (Except for 'Have you got any concerns about how to recognise whether your dating or romantic relationship is healthy or not?', however, this could have occurred by chance).

The outcomes of the survey indicate that both ND and NT young people had romantic relationship experiences including intimate experiences such as sexual intercourse. This may suggest that ND and NT young people might have equal interests in pursuing romantic relationships. In this study, in both groups, many young people reported having various concerns regarding their abilities to navigate romantic relationships including finding it difficult to recognise whether another person is trying to show them that they like/are attracted to them or not, or exhibiting behaviours that may be considered inappropriate when trying to show another person that they like/are attracted to them. Interestingly, the differences between the groups in reporting these concerns were non-significant. This may imply that the young people who came to this study represented similar knowledge regarding romantic relationships and sexuality. Or, perhaps, given that many reported having very limited numbers of sexuality education lessons in their schools/colleges, it may mean that in general, the sexuality education they received did not provide them with appropriate skills to navigate romantic relationships.

Additionally, in both groups, young people reported feeling more vulnerable than other people their age to being abused in their romantic relationship. Such concerns may imply that young people may lack adequate skills related to recognising and reporting abusive romantic relationships. This again could be due to the inadequate sexuality education that young people received about this aspect in their school/college.

ND young people as well as their NT counterparts reported learning about recognising healthy/unhealthy relationships, however, they also reported having concerns about their abilities to recognise whether their dating or romantic relationship

is healthy or not. This may imply that there is a possibility that the subject was not delivered in a way that would be most beneficial for young people to facilitate their understanding of the matter. Or perhaps, that they might require even greater attention to this topic to learn more affectively.

In addition, in this study, some young people in both groups reported having concerns about learning about sexuality, dating, and romantic relationships from the internet, however, not many reported learning about the consequences of watching pornography and IIOC. This may indicate that young people, in general, might be aware that the internet may not be the best/safest source of sexuality information for them, however, due to receiving inadequate information about some specific topics during their school-based sessions, they might search for the information on the internet. Pornography material is easily accessible on the internet, which may imply the potential danger of watching it by some young people, especially since the consequences of watching pornography are mostly not taught in schools/colleges as reported by young people in this study.

Table 9 provides responses to one question (barriers to romantic relationships) from the survey for young people.

**Table 9.** Young people's "Yes" responses to the barriers to romantic relationships.

Young people (N=76, 100%).

Barriers to romantic relationships	ND Group (61.8%)	NT Group (38.2%)
Contact with others is too tiring for me	10.3%	5.9%
I haven't yet met the right person I would like to	15.4%	41.2%
date/be with		
I don't know where I could meet a potential dating	5.1%	0.0%
candidate, or potential partner		
I worry they may not be able to fulfil another	25.6%	11.8%
person's/my partner's expectations		
I don't understand how dating or a romantic	5.1%	0.0%
relationship works, or how to behave during dating, or		
while in a romantic relationship		

I don't like the physical contact that dating or a romantic relationship may involve	2.6%	11.8%
I just don't feel the need to date or be in a romantic relationship	2.6%	17.6%
Other	25.6%	11.8%
l don't know	7.7%	0.0%

**Table 10.** Frequency of school-based sexuality education reported by young people(N=76, 100%) in the survey.

How often do/did sexuality education lessons take place at your school/college?	ND Group (61.8%)	NT Group (38.2%)
Once a month	11.1%	10.7%
Twice a month	4.4%	7.1%
Once a week	13.3%	3.6%
Twice a week	2.2%	0.0%
Other (give details)	51.1%	53.6%
l don't know	13.3%	25.0%
I'd prefer not to say	4.4%	0.0%

It is clear from the results about sexuality education that the teaching did not happen often; indeed, it could take place only once or twice a year. This may indicate that sexuality education, despite being on the curriculum as an essential topic, is not always treated seriously by some schools/colleges. Furthermore, ND and NT young people reported learning mostly about the biological side of sexuality (e.g., reproduction, contraception, pregnancy, and the consequences of pregnancy) during their sexuality education classes, as opposed to other essential subjects such as dating, marriage, and having children. This may imply that, generally, schools/colleges concentrate on the risks and adverse outcomes of sexuality, as opposed to portraying sexuality as a positive concept.

#### V.2.1.2. Study 3 (Interviews)

Six themes were generated from the dataset from young people's (N= 34, 12 NT and 22 ND) semi-structured interviews and some themes also have subthemes (see Table 11):

- Theme 1 illustrates young people's perspectives on the current cultural position towards sexuality.
- Theme 2 focuses on participants' perspectives on the sexuality education they
  received in schools/colleges, as well as providing their insights into ways of making
  sexuality education more beneficial for young people.
- Theme 3 portrays young people's opinions about their and their parents' sexualityrelated conversations, as well as their perspectives on including professionals in sexuality education for young people.
- Theme 4 describes pornography as a powerful avenue to shape some young people's understanding of sexuality and romantic relationships.
- Theme 5 portrays young people's complicated journeys of navigating their romantic relationships, as well as discussing specific challenges encountered by neurodivergent young people.
- Theme 6 offers neurodivergent young people's insights into the importance of teaching about abuse during sexuality education.

Themes 1, 2, 3, 4, 5 are common to NT and ND young people as the narratives provided by all groups contributed to their development. Theme 6, which is highlighted in light grey in the table (see Table 11), is common only to ND young people as only the narratives provided by these groups contributed to its development.

Table 11 provides the themes developed from the semi-structured interviews with young people.

**Table 11:** Themes from the semi-structured interviews with young people.

Theme 1: Societal ideology about sexuality

# Subthemes

- Sexuality as a taboo topic
- Influence of religion on attitudes toward sexuality

	Construct of "hetero-activism"
Theme 2: Substandard school- based sexuality education Theme 3: The role of adults in sexuality education	<ul> <li>Subthemes</li> <li>Superficial and incomplete teaching</li> <li>It is embarrassing</li> <li>Untrained staff to teach sexuality education</li> <li>sexuality education needs improving</li> <li>Subthemes</li> <li>Limited parent-child sex and relationship- related discussions</li> <li>Parental prejudice against children's non- heteronormative orientation</li> <li>Ways of improving sex-related discussions with parents</li> <li>The role of professionals in sexuality education</li> </ul>
Theme 4: Pornography, as a very powerful alternative means of sexuality education	
Theme 5: Young people and romance - a complicated world to navigate	<ul> <li>Subthemes</li> <li>Neurodiversity-driven obstacles to building romantic relationship</li> </ul>
Theme 6: Experience of abuse in the neurodivergent young population is a serious matter	

# Theme 1: Societal ideology about sexuality

Subtheme: Sexuality as a taboo topic

The narratives of young people in this study centred on the construction of sexuality as *"a very uncomfortable topic"* (YP15 female with ADHD) that is not openly spoken about in our society (Earle & Blackburn, 2021):

"[...] people just think it's too taboo, you know." (YP5 NT female)

This lack of open conversations about sexuality may affect access to sexuality-related support since this taboo creates "*a lot of stigma around sexual health clinics*" (YP15 female with ADHD). Consequently, some young people might lack the awareness of the existence and usefulness of such places, and thus they might miss out on utilising them:

"I've not heard [about] anyone who's used them." (YP15 female with ADHD)

This lack of open discussion around topics related to sexuality also influences certain conservative trends in societal thinking in terms of sexual behaviours. Some participants reported being afraid of pursuing their romantic interests to avoid "slut-shaming", which describes the act of criticising a person for their actual or perceived promiscuous sexual acts (Goblet & Glowacz, 2021):

"I was scared to just switch between people... you're seen as like a slut or a whore." (YP9 NT gender fluid/mainly female)

These existing societal assumptions regarding sexual behaviours were also evident in the narrative provided by one participant, who implicitly indicated that homosexual individuals are promiscuous (see Pinsof et al., 2017):

"So, so I learned I know a lot about gay stuff because obviously, he [gay friend] has had a lot... [experience]" (YP1 NT female)

Additionally, sexuality as a taboo topic in society may create further conservative trends of thinking. For example, being in a romantic relationship is regarded as *"normal"* (YP20 female with ADHD) even without questioning why someone wants to be in a relationship. Consequently, some young people might get involved in romantic relationships in which they feel uncomfortable since they believe they do *"what* [they are] *supposed to do"* 

(YP15 female with ADHD). Being single, on the other hand, is regarded as *"not normal"* (YP20 female with ADHD).

### Subtheme: Influence of religion on attitudes toward sexuality

Some young people's narratives have also highlighted the existing Christian illiberal attitude toward sexuality:

"I went to a Catholic school is like this [sex] happens after marriage [...] You don't do it before marriage otherwise you know like sinning." (YP3 NT male)

Christian schools do not provide teaching related to non-heteronormative sexuality since *"it's a sin in the eyes of God"* (YP19 male with ADHD). This young male (YP19 male with ADHD) described his school's discriminative attitude toward non-heterosexuality as *"disgusting"*. He additionally reported that:

*"It's like you stay away from them* [non-heterosexual people] *and then now it's just like, they are just normal people, I don't understand why I was told like that."* 

This indicates that some Christian schools, through their discriminative attitudes towards non-heterosexuality, may teach young people prejudice and hostility toward those minority groups. In the case of YP 19 (a male with ADHD), later in his life, he made friends with homosexual people and realised that they are *"just normal people";* subsequently, his personal attitude to the LGBTQ+ community changed. However, not every young person may have the opportunity or willingness to be friends with non-heterosexual people after receiving such type of teaching, and they may go through their lives having a negative outlook on non-heteronormativity. This consequently may add to the stigmatisation that already exists among some groups of people in the UK and around the globe against LBGTQ+ ideology.

One participant shared her mother's ideology regarding bisexuality, as shaped through her prism of religion:

"[...] involve yourself with someone of the same gender even though you know you're attracted to the opposite gender was a choice, and that was a choice going against, you know, our religious values and beliefs [...]" (YP20 female with ADHD)

Religion indeed has a substantial impact on sexuality education since some young people described that some students were withdrawn from sexuality classes due to their religious beliefs, which were against instilling knowledge regarding sexuality. Similarly, some young people, who were brought up in strict religious families, did not receive any sexuality education, instead, they *"had to like go out there* [...] *and figure it out* [...]" (YP16 female with ADHD). Such strict religious beliefs represented by some parents may have a detrimental effect on their children's future sexual and romantic relationships, since, as reported by YP16 (a female with ADHD), some young people will try to figure out things by themselves and this may create greater problems in their lives in relation to sexuality and romantic relationships, as opposed to if they received adequate guidance on these topics.

# Subtheme: Construct of "hetero-activism"

Some participants clearly embraced the construct of "hetero-activism", which describes opposition to LGBTQ+ sexuality education (Nash & Browne, 2021), while describing some parents' potential attitudes toward providing non-heteronormative sexuality education to their children:

"[...] it wouldn't be appropriate to sort of dive into LGBT education because it might offend parents [...]" (YP24 autistic male)

The narrative provided by YP24 (autistic male) clearly indicates that parental voices on sexuality education for their children might be crucial. It hence might not be appropriate to provide teachings related to LGBTQ+ sexuality during classes in schools without prior consultations with parents. Heteronormative sexuality ideology, however, has been presented as pervasive in societal minds by some young people in this study:

"[...] obviously, there's a lot of shame around being gay, especially [in the] 50s, 60s, 70s. My parents' parents, obviously, my parents learned from their parents, and it's intrinsically locked in them." (YP9 NT gender fluid/mainly female)

Heteronormative society does not treat homosexuality as real:

"[...] like slightly homophobic guy folks say that we are just phasing [...]" (YP23 autistic genderfluid/non-binary trans man)

Heteronormative societal attitudes have also been observed in the form of normative assumptions of sexual relationships as heterosexual across some health system institutions:

"I've been to see like gynaecologist and stuff like that, they very much so I just like, you know, assume that you're in a very heterosexual relationship [...] (YP7 NT nonbinary/female)

As emphasised by an autistic young person (YP23 autistic genderfluid/non-binary trans man), this dominant heteronormative attitude toward sexuality in society permits abusive acts "[...] *just like, legitimated like a lot of bullying* [...]" and contributes to discrimination against individuals who identify themselves as LGBTQ+. Consequently, some young people feel a need to hide their sexual orientation in order to be accepted by society:

"I didn't actually go after people that I liked [same sex people] I instead wanted to feel safe [accepted by society]." (YP27 autistic male)

Some participants reported that falling outside of the normative frame of sexuality might be a very shameful experience, which consequently forces some young people, for example:

"[...] to hide the fact he was gay in high school." (YP1 NT female)

Experiencing the stigma and prejudice toward non-heteronormative sexuality, which tends to be deemed undesirable by some societies and cultures (Van der Toorn et al., 2020), might also be "*a very alienating experience*" (YP7 NT nonbinary/female). This palpable stigmatisation against LGBTQ+ sexuality across various institutions and in some young people's homes may add to health and mental health problems that many LGBTQ+ young individuals experience due to feeling segregated from the community (Russell et al., 2016).

# Theme 2: Substandard school-based sexuality education

# Subtheme: It is embarrassing

This cultural approach to sexuality as a taboo topic, as reported in the previous theme, creates feelings of embarrassment when trying to discuss aspects related to sexuality. This was palpable during sexuality education lessons as reported by some young people: "I think the students feel quite awkward in lessons when it's a teacher that they know quite well who's talking about sex [...]" (YP28 autistic female)

Not only might students find sexuality education awkward, but some teachers might also feel uncomfortable teaching this subject:

"[...] my teachers were really uncomfortable about discussing it with me a lot of the time [...]" (YP23 autistic genderfluid/non-binary trans man)

To cover the awkwardness of the lessons, some young people may take a humorous approach to the lessons:

"I think to everyone it's more of a joke week [week of sexuality education] really isn't it's almost that's how they deal with the at that age awkwardness of it is to see it as a joke and laugh it off." (YP18 male with ADHD)

Given that sexuality is a culturally taboo topic, young people might not be used to hearing and conducting discussions about it. Therefore, when they start to learn about it in their schools/colleges, they might feel very uncomfortable and to cope with this feeling, they may laugh. As a result, sexuality education may be treated in some schools/colleges as a laughing matter:

"[...] nobody took it [the lessons] seriously, really." (YP24 autistic male)

This unserious approach to the subject and frequent laughing during the lessons may inevitably affect students' concentration and subsequently reduce the learning outcomes. As highlighted by one participant (YP25 autistic male), there was nothing established by the teaching staff to help address this immature attitude displayed by students toward sexuality education. This may suggest that students' preoccupation with humour during the lessons may serve a useful purpose for some teachers; distracted students do not pay much attention to the teacher, who might also feel embarrassed and unprepared to provide this type of teaching.

#### Subtheme: Superficial and incomplete teaching

Another factor that may suggest that sexuality education is not treated seriously in some schools/colleges was the limited number of lessons provided to students or, in a case of one participant, no teaching at all:

"[...] we didn't have it at all really... not in school or and college, definitely not [...]" (YP5 NT female)

This participant (YP5 NT female) explained the reason for it, stating that normally the school "would bring people in to do, you know, the sex education classes, and then people just never came in so it never happened." (YP5 NT female). This narrative indicates that sexuality education in some schools/colleges is not treated as an essential subject, despite being on the curriculum. Teachers that were supposed to come to teach the subject did not arrive; however, no substitution was provided.

Similarly, as reported by some young people, the delivery of the material was provided in a very simplistic way (e.g., through PowerPoint presentations). Lessons were very often based on no discussions and there were no opportunities provided for students to ask questions (Astle et al., 2021):

"[...] a look at the PowerPoint and don't ask questions sort of lesson." (YP4 NT nonbinary person)

Again, due to sexuality being a taboo topic, it might be difficult for some teachers to discuss it with their students. Uploading some videos for students to watch and allowing them to make sense of what they watched, might simply be an easier solution. This cultural, unserious approach to sexuality education was further emphasised by the very limited subjects that were taught to young people, for example:

"[...] we only had some biology courses regarding the female and male reproduction system, so it was the only class that they might be touched upon sex and how to be more safe and condoms, but it was very brief and it was something basic." (YP32 female with ASD co-occurring with ADHD)

This may indicate that the sexuality education was inadequate in terms of offering young people knowledge that is important to understand their sexuality. Understanding own sexuality may be essential in order to building and creating healthy romantic relationships. However, teaching related to romantic relationships was also non-existent or almost nonexistent across many schools:

"And when it actually comes to, you know, gaining relationships, gaining, you know, people to attract and all that, you're not taught that." (YP24 autistic male)

This lack of teaching related to romantic relationships left many young people having to learn about these topics through their own experience by trial and error. This existing lack of support in this context may contribute to negative experiences of young people's relationships including different forms of abuse (sexual or psychological) and victimisation (see e.g., Herbert et al., 2023). Additionally, as one ND person (YP24 autistic male) indicated, for some young people, especially ND, teachings related to very basic aspects (e.g., how to attract other people) about relationships might be crucial in order to give them an appropriate understanding of how to build a romantic relationship. Another essential factor identified from the participants' narratives, which highlights the inadequacy of sexuality education, was that it excluded topics related to LGBTQ+ sexualities:

"[...] it was that definitely very much focused on like heterosexuality [...] (YP11 NT female)

The lack of inclusivity made some young people feel disregarded, which resulted in them creating a silent protest as reported by one female:

"[...] they [gay students] refused to listen [teaching during sexuality education] in a form of almost silent protests because they felt like they weren't being included in there, for that space wasn't for them." (YP22 female with ADHD)

This lack of inclusive sexuality education may be the outcome of the societal conservative trends of thinking as reported in the previous theme. This attitude, in turn, may further contribute to some LGBTQ+ individuals' sense of exclusion from society and have a detrimental effect on their mental health.

# Subtheme: Untrained staff to teach sexuality education

Notably, some young people also felt that some of their teachers were ill-equipped to teach sexuality education:

"[...] they probably got videos because they couldn't do that, they didn't know what to do with themselves, the teachers [...] Like they didn't know how to deliver the class themselves." (YP17 male with ADHD) Again, this may be the consequence of sexuality being a taboo topic in society resulting in an unserious approach to teaching this subject. This unserious approach might be palpable since some young people in this study felt that some teachers presented having not very serious attitudes toward teaching sexuality as if they just have *"a quote that we have to meet."* (YP22 female with ADHD). This may suggest that some schools do not seem to treat sexuality education as an important subject. Rather is it treated like something that must be provided since it is on the curriculum. However, it is not given due attention. Additionally, some teachers might not recognise that some information they may provide to students during sexuality education might be regarded as inappropriate as reported by one male:

"[...] teacher that goes, oh yeah, sex is great! I mean, our teacher was on about it during the class and, you know, yeah, his condom rips like, well, maybe we didn't need to know that [...]" (YP34 male with ASD co-occurring with ADHD)

As indicated earlier, similar to students, some teachers might feel awkward and lack selfefficacy to teach sexuality. In order to hide their embarrassment, they might resort to using humour, which sometimes may be perceived as inappropriate.

#### Subtheme: Sexuality education needs improving

Given the inadequate sexuality education that many young people reported in this study, they also suggested a number of recommendations for the improvement of it. One of the aspects mentioned by some participants was that young people *"are introduced to sex informally a lot sooner than it's formerly brought up in school."* (YP12 NT female) and hence, they recommended that sexuality education should be provided at an earlier age than they received it (Room, 2019):

"I think kind of starting that in an earlier age so that they don't develop that sense of discomfort, it's a lot harder to get rid of the sense of discomfort than it is to just stop it from happening in the first place." (YP15 female with ADHD)

As previously noted, many young people laugh during sexuality education to cover their embarrassment, hence ensuring an early start to teaching sexuality might reduce the awkwardness young people develop when introduced to the topic in their early teens. Many participants in this study discussed the importance of providing inclusive sexuality education that would involve topics related to LGBTQ+ sexuality:

"[...] *it* [sexuality education] *should be* [...] *inclusive and people should just get on with each other* [...]" (YP34 male with ASD co-occurring with ADHD)

Being asexual was also reported as something that should be incorporated in teaching and normalised as:

"[...] *it's fine if you do not feel that* [sexual desire]" (YP32 female with ASD cooccurring with ADHD)

Further topics that should be discussed with young people during sexuality education included romantic relationships, specifically aspects related to *"recognising when a relationship might be bad"* (YP21 female with ADHD), *"how to handle* [...] *rejection"* (YP14 male with ADHD), *"how to form relationships"* (YP24 autistic male), more in-depth contraception methods, sexual activities other than intercourse, and *"how to find sex pleasurable"* (YP27 autistic male). Some participants additionally stressed that sexuality education would be enhanced by offering students more interactive lessons based on *"opening it up to you know questions from us* [students]" (YP28 autistic male). Some young people *"opportunity to discuss things more"* (YP28 autistic female). Some young people also recommended introducing technology-based interactive sexuality education:

"I think it could work, especially at a young age, like even in school like you could give out iPads and have the app on the iPad and then everyone could look through it at their own time, which bit more interactive [...]" (YP3 NT male)

Many of the aspects mentioned by these young people are already on the current curriculum and hence they should be discussed with young people during their lessons. The topic of sexual pleasure is not included in the existing curriculum; however, sexual pleasure is a part of human sexuality (as discussed in Chapter I) and hence it is vital that it should be incorporated in sexuality education. Another salient aspect that was highlighted by some young people in this study was the importance of improving access to support services related to sexuality and romantic relationships for young people:

"[...] more access [...] maybe easier access to those things now they are relatively easier compared to what they probably used to be, but it's still not the easiest thing to go [...]" (YP4 NT nonbinary person)

This may imply that some young people might lack knowledge about the existing support on sexuality and romantic relationships outside schools/colleges; therefore, signposting them about it might be beneficial. Notably, teaching related to this aspect is included in the current curriculum (DfE, 2019). Adapting to all these changes would create more effective sexuality education for young people as concluded by one participant:

"[this will] make it less stigmatised, less clinical, where you could feel more comfortable." (YP10 NT female)

Theme 3: The role of adults in sexuality education

Subtheme: Limited parent-child sex and relationship-related discussions

Similar to the substandard sexuality education many young people reported having received in school, they also described none, or very basic topics related to sexuality that they discussed with parents. Young people provided different explanations for why they did not have a good quality sexuality education with their parents including the fact that parents were not *"really a safe space"* (YP12 NT female), or speaking about the mother:

*"She doesn't know much herself, so I wouldn't really trust what she has to say."* (YP33 female with ASD co-occurring with ADHD)

One young person mentioned the aspect of cultural influences on sexuality-related communication with parents. She was of Indian origin (living in the UK), and from her narrative, it is apparent that sexuality is a subject that is not typically discussed within conservative Indian families:

"[...] just because I'm Indian [...] I don't speak about it [...]" (YP8 NT female)

Additionally, another participant's narrative highlighted that their parents were *"very traditional people"* (YP29 autistic female) and hence they did not discuss sexuality with their child. This again implies that traditionally, as a society, we do not discuss topics related to sexuality.

Participants who had sexuality-related communication with their parents reported covering topics such as masturbation, contraception, period, and pregnancy. Some participants mentioned discussing topics related to romantic relationships, albeit at a basic level. Some others acknowledged that their parents tried to communicate with them about sexuality, however, they might have lacked the skills to do it effectively:

<sup>&</sup>quot;I think that might be that they didn't feel qualified as well to talk about things like that [...]" (YP26 autistic female)

Additionally, some young people in this study reported having found (potential) discussions related to sexuality with their parents as an awkward experience; despite this, some acknowledged that it would be beneficial if their parents had discussed sexuality with them:

"[...] yeah, I wish I really could. It would be so helpful, and I think it would make like navigating life much easier." (YP29 autistic female)

One young female provided examples of open sexuality communications that some of her friends had with their parents and how useful such discussions were for them in terms of helping them to manage challenging situations related to *"more distressing sexual encounters or like instances of harassment and stuff like that."* (YP10 NT female). This indicates that parents play a crucial role in scaffolding their children's development of sexuality and romantic relationships. Notably, in this study, for some young people conversations about sexuality with their mothers were more open and easier to conduct, as opposed to with fathers:

"[...] with my mom, it was always more open [...] But with my dad, it was always a little bit awkward." (YP30 autistic female)

For young people in this study, mothers were more approachable to discussing sexuality with them than fathers. This may indicate that fathers may feel more embarrassed at conducting such conversations with their children.

# Subtheme: Parental prejudice against children's non-heteronormative orientation

Not only is it apparent that parent-child sexuality education is minimal, but some parents may also undervalue their children's sexuality:

"[...] they [parents] think I'm experimenting or something [...] they don't really think I'm valid just yet, which makes me down myself a lot." (YP31 female with ASD co-occurring with ADHD)

An autistic genderfluid/non-binary trans man (YP23) reported that they could not discuss sexuality with their parents due to them being very judgemental and critical. Another participant admitted that although they are homosexual, they have never felt comfortable attempting to be in a homosexual relationship as this would have not been accepted by their family:

"My parents have taught me that that [non-heterosexual orientation] is wrong [...] my nan won't even say the word gay." (YP9 NT gender-fluid/mainly female)

In the case of this young person (YP9 NT gender-fluid/mainly female), the need to suppress their sexuality made them feel dismal and dubious that they would ever feel confident enough to pursue their true sexual and romantic interests.

The extracts provided imply that children value their parents' opinions regarding their own sexuality while parental lack of acceptance of their sexual orientation influences their mental health.

# Subtheme: Ways of improving sex-related discussions with parents

As a consequence of the very limited sex-related communication that young people had with their caregivers, some offered their views on improving this communication. They mentioned some subjects that, in their views, would be useful if they were covered with their parents including consent, emergency contraception, being aware of and how to recognise what harassment, sexual assault, and rape are, and STDs, and how to engage in safe sex. Other recommended aspects of parent-child sexuality discussion included romantic relationships, as well as: "[...] signs of abuse like not just physical abuse [...] emotional abuse and touching upon grooming as well." (YP33 female with ASD co-occurring with ADHD).

One participant additionally added that:

"[...] it could be quite beneficial, especially if you know the parents [...] kind of like [not] forcing the young persons [...] making them feel comfortable [...]" (YP6 NT female)

This might suggest that young people may find sexuality-related discussions with their parents beneficial, however, if the discussion is approached in an inappropriate way, it may then be counterproductive.

# Subtheme: The role of professionals in sexuality education

Given the inadequate support that young people received from their parents, as well as in their schools, some of them suggested that it would be beneficial if health professional services were also involved in providing sexuality education or would offer some type of support for young people in terms of their sexuality and romantic relationships:

"I think maybe someone trained in like, mental health like either like a therapist, counsellor kind of thing would be useful [...]" (YP15 female with ADHD)

One participant (YP22 female with ADHD) stated that "[...] *the school would just ignore it."* when describing available support for young people related to some aspects of relationships in her school. This could imply that some schools may not have adequate resources including teachers' training to support students with some sexual and romantic

relationship challenges. Support provided by professionals might, therefore, be more effective:

"[...] she [a therapist] was really helpful with giving me resources and things like that and I appreciate that [...]" (YP13 female with ADHD)

Some participants spoke about the potential benefits of allocating school-based professional services for young people including a safe environment and *"being readily available to people"* (YP2 NT female). This indicates that young people would like to have easy access to support; given that they spend many hours at school, creating such spaces on the school's premises might be beneficial.

Some participants shared their experiences of accessing school/college-based professional support. However, their narratives demonstrated that such support may not always be adequate and very helpful:

"I was having to repeat my story to multiple different people over and over again [...] and that's what I struggled when I went and talked to them about my experiences." (YP16 female with ADHD)

From that narrative, it may be argued that ensuring consistency in terms of the support provider might be important, as opposed to offering a new provider for every follow-up appointment. Discussing intimate events with multiple people may hinder the outcome of the support. Despite the negative experiences, many young individuals in this study felt that:

"[...] *they* [professionals] *are more respected by the students than the teachers* [...] (YP28 autistic female)

The reasons for this might be that, as reported by one male participant who identifies as LGBTQ+ (YP23 autistic genderfluid/non-binary trans man), professionals made them feel

"[...] *a lot safer, like, you're not going to be outed* [...]" than teachers. Some might feel that:

"teachers [...] might not have the training, the doctors or nurses or external will have [...]" (YP34 male with ASD co-occurring with ADHD)

Consequently, many young people highlighted the important role of professionals in helping young people develop an understanding related to building romantic relationships. One neurodivergent young individual, however, stressed the lack of professional support in terms of romantic relationships that would be specific to the neurodivergent community:

It's hard to find a neurodivergent friendly therapist, especially with relationships [...]" (YP31 female with ASD co-occurring with ADHD)

This may indicate the need for specialist-tailored support for the ND population in the context of sexuality and romantic relationships, especially as ND young people might require even greater support in this matter than their NT peers (as discussed in Chapters I and II). It may also suggest that some ND young people may require adequate signposting to appropriate professionals when seeking advice on their romantic relationships. This signposting should be available during sexuality education (DfE, 2019).

#### Theme 4: Pornography, as a very powerful alternative means of sexuality education

Due to the inadequate sexuality education many young people receive both in their schools/colleges and their homes, as reported in earlier themes, many feel the need to search for the information elsewhere. Pornography was reported as being one of the most powerful, alternative means of sexuality education for many young people: "I think you can't talk or think about sex education in young people without talking about pornography because right, it's just so important [...] children learn so much more from pornography than they do from any kind of institution or schools [...]" (YP18 male with ADHD)

Due to easy access to pornographic materials on the internet, young people may find pornography as a useful source of information, which they may pursue by themselves without any unnecessary feelings of embarrassment, which often accompanies the school's sexuality education. Some participants, however, acknowledged *"very unrealistic expectations and things"* (YP3 NT male), as well as emphasised the potential danger of learning about sexuality and romantic relationships from pornographic materials:

"I think unless it's education, if it's sexually related on the internet, I think it should be banned. It's tarnishing people's minds [...] I've been victim to it [...]" (YP14 male with ADHD)

Since pornography *"it's so widely accessible for people to watch"* (YP5 NT female), some may use this resource from a very young age:

"You know he [brother] told me what, like pornography was when I was like 7." (YP11 male with ADHD)

Some narratives also clearly highlighted a lack of education about pornography both in educational institutions and in young people's homes, despite its common use amongst the young population. One young male reported that although his mum could have been aware that he and his brothers were watching pornography, she never discussed this subject with them since:

"[...] perhaps she didn't know what to say [...]" (YP18 male with ADHD)

This may suggest that some parents, despite being aware that their children may watch pornography, might feel ill-equipped to conduct discussions with them related to this topic. Pornography, however, is easily accessible via the internet and many young people watch it (Massey et al., 2020). Watching pornography, may, in turn, lead to serious negative consequences, especially in some ND young people, as highlighted in Chapter I of this thesis. Therefore, pornography should be incorporated into sexuality education:

"[...] I think it gets worse and worse every year, probably. And so, yeah, so perhaps [teaching] something about pornography 'cause I think it's so prominent." (YP18 male with ADHD)

The narratives provided by the young people in this study clearly imply the seriousness of utilising pornography as a sexuality and romantic relationship educational resource by the young generation and the subsequent importance of focusing on teaching about pornography and the consequences of watching it to young people during their sexuality education.

#### Theme 5: Young people and romance - a complicated world to navigate

The result of a lack of adequate sexuality education for young people was also evident in participants' narratives regarding their romantic relationships since many of them reported having experienced various challenges while navigating the world of romance. Notably, in this study, many NT participants and participants with ADHD reported having some romantic relationship experiences, however, autistic young people and young people with a dual diagnosis reported having little or no romantic relationship experiences. Some participants' accounts of those experiences have drawn attention to the common casual approach to romantic relationships adopted by some young people:

*"I've dated people in the past and I've never been official with anyone."* (YP3 NT male)

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This casual attitude to romance appears to be a dominant trend amongst young people as highlighted by one female:

"I can see in these days, like, casual relationships are very common and kind of are like it feels almost as if they're like they're becoming the most predominant ones within young people." (YP20 female with ADHD)

This casual approach to romantic relationships might come from the fact that young adulthood is the period during which young people start to learn what a romantic relationship is, and they may not yet have the adequate skills to know how to maintain it. Therefore, navigating relationships through a learning curve may be a common thing:

"I think some things you can't be taught, and you just have to learn from what happens and I think that's what I've done [...]" (YP17 male with ADHD)

For some participants in this study, learning from experience also meant going through challenging circumstances in romantic relationships and identifying what was working and what was not, for instance:

"I had to learn the hard way [about romantic relationships]. I think the only way you learn as well is trial and error and watching others [...]" (YP14 male with ADHD)

As indicated in the above extracts, learning about romantic relationships by oneself meant having had to "*learn the hard way*", which implies many struggles. Notably, one young person (YP17 male with ADHD) suggested that romantic relationships "*can't be taught*", similarly, the other young person (YP14 male with ADHD) stated that learning by experience is "*the only way*" to gain knowledge related to relationships. Those views might be developed as a consequence of a lack of education related to romantic relationships many participants in this study reported. However, an adequate education related to romantic relationships might contribute to better outcomes of romantic relationships in young people in general.

Given that many young people in this study learnt to navigate their romantic relationships by themselves, many encountered communication difficulties within those relationships. Lack of expressing one's feelings was a significant deterrent to sustaining a good romantic relationship as stressed by several participants. For example:

"[...] it was really hard for you know us to have a full conversation about things [...] it's hard to, you know, get her to really speak about what she wanted to say and was feeling at the time [...]" (YP25 autistic male)

Being direct and literal in communication, which is a common feature associated with ASD, may also contribute to challenges within romantic relationships:

"I rarely read between the lines, so he has to be very specific with me and if it's not, if it's not, then there's trouble. Yeah, and at the same time, when I'm quite direct that can also sometimes bring trouble." (YP26 autistic female)

The communication challenges may also be exacerbated by the ADHD characteristics as suggested by one young person with this condition:

"I don't want to completely blame this on ADHD, even I'm sure that's a factor in it. But I'm, I'm definitely very quickly frustrated by small things [...] my ADHD doesn't just affect the romance. It even affects, like how I interact with people [...]" (YP13 female with ADHD)

Good communication between the couple, however, is one of the variables that affect the overall quality of a romantic relationship (Malouff et al., 2015). Indeed, some participants

emphasised the importance of good communication between them and their partners for a romantic relationship to prosper.

From the narratives provided by young people in this study, it is clear that navigating the complicated world of romance is a challenge, which could be reduced if young people were given adequate support in this context. However, at present, it appears that they are left with their own limited understanding of the topic to create, inevitably by trial and error, their romantic relationships.

# Subtheme: Neurodiversity-driven obstacles in romantic relationships

This lack of adequate sexuality education had a substantial impact on some ND young people since they reported having no romantic relationship experiences, due to a lack of knowledge of how to gain a relationship and *"how it works"* (YP32 female with ASD co-occurring with ADHD), for instance:

*"I've never been in a relationship with anybody, and I think it's fair to say because I don't understand how* [...] *I just don't know in practice how I can actually do it* [...]*"* (YP29 autistic female)

The above extract clearly indicates that some ND young people lack romantic relationship experiences due to having no basic knowledge of what a romantic relationship is and how to gain it. Aspects related to romantic relationships, however, appear not to be taught during sexuality education. As reported earlier, NT young people, although they also receive no education on this topic, might learn about it through experience. However, for a ND young person, due to their impairments in social interactions, investigating relationships through trial and error may create serious problems (see Chapter II). Therefore, sexuality education that would focus on teaching aspects related to romantic relationships (e.g., what it is, how to gain it, etc.) for ND young people might be crucial. As additionally reported by some of those participants, they *"long to be loved"* (YP29 autistic female) hence romantic relationships are something they desire:

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"I do crush on people every now and then [...] So, I guess that does mean it [that I want it]" (YP31 female with ASD co-occurring with ADHD)

For some ND young people, the lack of understanding of inappropriate behaviours in the context of romantic relationships may create further barriers to achieving a romantic relationship. Some young people in this study reported exhibiting inappropriate behaviours unintentionally, which might be the result of a lack of adequate knowledge. For example, one participant (YP23 autistic genderfluid/non-binary trans man) described that they unintentionally stalked their ex-partner, which consequently had a detrimental impact on their relationship. That young person emphasised that they had challenges with distinguishing which things are right from which are wrong, but they would never like to hurt another person intentionally. This impaired social competence, however, often got that young person in trouble:

"I used to get in trouble a lot for like going, hugging people who didn't want to be hugged, even though that was like a friendly gesture." (YP23, autistic genderfluid/nonbinary trans man)

Difficulties with recognising boundaries and *"hidden social roles"* (YP31 ASD cooccurring with ADHD) were other vital aspects reported by some ND participants, which, again, could be the consequences of a lack of appropriate understanding of sexuality that could potentially contribute to problems with romantic relationships:

"[...] I've crossed an age boundary. And, you know, like, actively hurt somebody because of it. Because, you know, I've not recognised some sign." (YP23, autistic genderfluid/non-binary trans man)

This may imply the importance of providing ND young people with adequate knowledge related to appropriate versus inappropriate sexual behaviours. Furthermore, some ND

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young people, due to having inadequate knowledge related to sexuality and romantic relationships, might feel vulnerable to entering relationships:

"I wasn't [in a relationship] because I think there was always that fear around, especially because I was so young then I was so vulnerable because of, you know, as having Asperger syndrome." (YP30, autistic female)

Some ND young people might be more vulnerable to experiencing bullying from peers, which subsequently may affect their perceptions about their future romantic relationships:

"I have very low aspirations romantically because of the bullying [...]" (YP23 autistic genderfluid/non-binary trans man)

As indicated by those participants, being neurodivergent may contribute to feeling vulnerable to entering romantic relationships. Negative experiences, such as, for example, bullying, may, in turn, influence a person's confidence in pursuing romantic relationships. Hence, ND young people could be offered adequate support that would help them increase their self-confidence in establishing romantic relationships.

Furthermore, for some ND young people, being in a romantic relationship with a NT person may also create a challenge:

"I think what didn't work what's on my partner wasn't autistic. I think they didn't understand a lot about autism and how that worked and that creates a lot of arguments." (YP28 autistic female)

To fit in the neurotypical world, some ND young people may need to "mask" their differences and hide their true selves in order to be accepted:

# "[...] *it's like, pretending to be fine when you're not.*" (YP24 autistic male)

The indication that the current sexuality education is not adjusted to the needs of ND young people and thus leaves many of them without basic knowledge related to romantic relationships may inevitably create feelings of discrimination and a consequent need to fit into society by "masking" (Cook et al., 2018). This suggests a need for raising greater awareness related to neurodiversity in society as this may help to create more open societal attitudes toward neurodiversity.

The existing lack of adequate information related to sexuality and a consequent lack of understanding of some sex-related issues may additionally cause fear in some ND young people. For example, fear of intimacy was one of the obstacles to creating romantic relationships for some ND young people (autistic and with a dual diagnosis) in this study:

*"I had a touch phobia until I was about 18* [...]" (YP33 female with ASD co-occurring with ADHD)

"I have a big fear of intimacy, and I want it, I'm still very scared of it. And that's also a very stressful thing I have in my mind, as long as I don't know anything about intimacy either." (YP31 female with ASD co-occurring with ADHD)

Bad past experiences might additionally affect a person's perceptions about intimacy, as highlighted by a young ND female:

"I had bad experiences of being you know, seen as the weird kid in secondary school, which makes me think I'm a creep and therefore I don't really deserve intimacy." (YP31 female with ASD co-occurring with ADHD)

As indicated in the above extracts, fear of intimacy does not mean that a person is not interested in intimacy, on the contrary, they might "[...] *want it* [...]" (YP31 female with ASD co-occurring with ADHD), however, the fear may be too strong to try to be intimate

with someone. Additionally, due to a lack of adequate sexuality education, the person might lack an understanding of what intimacy is and this may create the fear of the unknown (Del Giudice et al., 2023). The discrimination that some ND young people may experience may additionally make them feel unworthy of intimate relationships as indicated by YP31 female with ASD co-occurring with ADHD:

"[...] I don't really deserve intimacy."

Therefore, it might be crucial to focus on information related to intimacy and the potential fear of it among ND young people, and consequent ways of managing it during sexuality education, as well as creating more open attitude toward neurodiversity in society. Notably, for some young people in this study, it was important to highlight that:

# "[...] asexuality is also a choice, that it's fine if you do not feel that it's not abnormal or anything." (YP32 female with ASD co-occurring with ADHD)

One young person (YP33 female with ASD co-occurring with ADHD) spoke about having many asexual friends and voiced the necessity for asexuality to be "appreciated rather than assuming that heterosexual intimate relationships were a norm." The participant's (YP32 female with ASD co-occurring with ADHD) emphasis on stating that "[...] asexuality is [...] not abnormal [...]", may indicate that, due to a lack of inclusive sexuality education (as reported earlier in this study), some young people may feel excluded from society as if they were "not normal".

The narratives of some ND participants in this study also drew attention to mental health problems and their consequent effect on romantic relationships. For example, issues with anxiety appeared to be a serious problem for some young people:

"[...] it [anxiety] creates for so many people like me that have a lot of anxiety, overthinking and thinking about worst case scenario, I'm actually scared of flirting." (YP24 autistic male)

This anxiety may also be the result of a lack of understanding related to sexuality and romantic relationships. An ND young person may be *"overthinking"* (YP24 autistic male), which then may lead to being *"scared"* (YP24 autistic male), since they were not provided with information that would help them better understand the situation (in the context of their romantic relationships). However, anxiety, as indicated in the above extract, might be a serious deterrent to romantic relationships in some ND young people. Efforts could be channelled to support ND young people with their anxiety levels. This, subsequently, may increase their confidence in trying to create romantic relationships. Feeling insecure might also come from mental health problems since it may be linked to, for example, depression (Cortés-García et al., 2020). For some ND young people in this study, feeling insecure was an essential aspect that affected their romantic relationship experiences:

"I was very insecure and clingy [...] I took that out with my partner...Yeah, that definitely did affect us like severely in the first couple years." (YP33 female with ASD co-occurring with ADHD)

"I have [...] problems and doubts about whether we will be together in the future, or whether he doesn't like me anymore and stuff like that." (YP27 autistic male)

The narratives provided may suggest that, apart from offering ND young people adequate sexuality education that would increase their understanding of this matter, adequate support targeting insecurity in relation to sexuality and romantic relationships may also be beneficial. Other mental health issues might also negatively affect romantic relationships in the ND population. Therefore, providing mental health support that would be easily available for them might also be crucial, especially as neurodivergent conditions (autism and ADHD) tend to co-occur with mental health conditions, as explained in Chapter I. As reported by Schnitzler et al. (2023), there is a link between people's mental

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health and sexual health and hence these two phenomena should be approached holistically.

# Theme 6: Experience of abuse in the neurodivergent young population is a serious matter

Abuse was another salient subject in the narratives provided by ND young people in this study. It was clear from what they said that abuse is a "*serious topic*" (YP18 male with ADHD) that "happens far more often than we're willing to accept" (PY14 male with ADHD). Some participants in this study shared their experiences of sexual or emotional abuse in their intimate relationships (which again could be due to a lack of adequate sexuality education):

"My first relationship was very sexually coercive [...] And my second one was emotionally abusive." (YP21 female with ADHD)

Additionally, young people who identify themselves as LGBTQ+ are prone to a greater experience of abuse since being a minority person means: *"you're setting yourself up in a way for discrimination"* as pointed out by a ND person (YP33 male with ASD co-occurring with ADHD). Some young people reported not entering romantic relationships due to experiencing emotional abuse (bullying) in their schools:

*"I never really dated because I had such a bad experience* [constant bullying] *in high school, it kind of put me off* [...]" (YP30 autistic female)

Despite its seriousness, abuse is *"a taboo in our society, in our homes and our schools, everywhere."* (YP14 male with ADHD). Additionally, as reported by another young person:

"[...] culturally there's a big stigma around coming forward about rape and abuse." (YP30 autistic female)

Some young people in this study reported that victims of abuse may also find it very difficult to reveal their experiences to other people and especially when it happened to men *"it's kind of frowned upon"* (YP14 male with ADHD). Given this information, it may be indicated that, due to the existing cultural stigma related to revealing abuse, there might be some young people who experienced abuse in their romantic relationships, however, they may not feel supported to report it. Additionally, this lack of open discussions about abuse may prevent some ND young people, due to their social impairments that are inherent in ASD and ADHD, from recognising and reporting it. Some ND young people in this study, however, believed that abuse is *"something quite important to talk about"* (YP23 autistic genderfluid/non-binary trans man). This societal taboo about abuse was also tangible in one of the participants' narratives as she apologised to me for sharing her emotional stories about abuse; meaning that abuse is something we (as a society) are not encouraged to talk about:

"And I'm sorry for, you know, implying all that horrible knowledge upon you, kind of burdening you with that." (YP22 female with ADHD)

The existing cultural system puts females who experienced abuse into a position of shame and humiliation making them believe it was their own fault (Zauner, 2021). This position was palpable in the narrative presented by one female who experienced sexting abuse:

"[...] my parents were told by social services to treat me like I was an addict and told that I would do it again. And in the official social work report, it stated that I liked the attention, and they closed the case." (YP22 female with ADHD) Another female participant, who experienced sexual abuse, also felt accountable for her victimisation:

"[...] the boys I dated always over-sexualised me because I'm quite a curvy girl and stuff. In that sense, and like just 'cause the way I dress 'cause I felt confident showing my curves off." (YP16 female with ADHD)

This may indicate that some cases of abuse are not always treated seriously enough when reported by female victims as indicated in the narrative provided by a YP22 (female with ADHD). Additionally, it may also be suggested that some ND young people might lack a (full) understanding of what abuse is and consequently, they feel guilty for being abused (a case by YP16 female with ADHD). This, in turn, suggests that there is a need to teach ND young people topics related to abuse and victimisation during sexuality education. This existing societal taboo against abuse and hence lack of education about it also contributed to a lack of awareness that some ND young people displayed regarding the subject. Subsequently, this led to adverse consequences in their lives including being in an abusive romantic relationship without recognising it:

"[...] and I didn't really know that that [sexual abuse] was happening and until quite a long time afterwards." (YP21, female with ADHD)

Not only victims of abuse might be unable to recognise that abuse is happening to them, but also abusers may exhibit abusive behaviours toward other people without recognising and acknowledging their inappropriateness:

"[...] I've had sometimes in my past experiences where people being forceful and persistent and some of them not even realising what they're doing is actually wrong." (YP16 female with ADHD)

This lack of support and acknowledgement of the importance of abuse was also palpable in some participants' narratives regarding some educational professionals' approach to the topic, for example:

"[educators] weren't educated and how to spot stuff [abuse], as well like and even when they were, you know, spotting stuff, there was, you know, some students that were very vocal about things that had happened to them, and there were no support systems in place, there were no lines of reporting, there was nothing [...]" (YP22 female with ADHD)

This reported lack of support from the teaching personnel might imply that some educators might lack appropriate training to provide adequate assistance to young people in relation to abuse. Therefore, ensuring adequate training for all school staff members might be crucial. Some young people, however, believed it was vital to talk about abuse to increase awareness of this very important topic. As pointed out by a young female (YP22 female with ADHD), adults should teach children to identify what abuse is. She also made a very important point highlighting that *"sometimes bad touches don't always feel bad* [...]" and this vital information ought to be taught to young people.

# V.2.1.3. Summary of The Findings from Young People

The findings from the survey and interviews with young people indicated that sexuality education in schools/colleges, as well as at young people's homes, did not provide them with adequate knowledge related to sexuality and romantic relationships. The focus appeared to be on the biological side of sexuality (e.g., reproduction, contraception). This suggests that educational institutions place significance only on the risks and adverse outcomes of sexuality, as opposed to portraying sexuality as a positive concept (e.g., sexual pleasure). Consequently, young people in this study highlighted the importance of offering them space for discussions about positive aspects of sexuality during the lessons. This may imply the necessity to adjust sexuality education to meet the current needs and requirements of young people.

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The results also emphasised the lack of focus on romantic relationships during the lessons. Young people in this study reported experiencing challenges while navigating romantic relationships, which might be the result of inadequate teaching related to this subject. The inclusion of topics related to romantic relationships in teaching might be especially crucial for ND young people as, in this study (interviews), they reported experiencing abuse in their romantic relationships whereas their NT peers did not report such issues. Interestingly, although this difference in the experiences was observable in the interviews, the findings from the surveys did not report any significant differences in the experiences between ND and NT groups. Nonetheless, the finding from the interviews may suggest the importance of providing young people, and especially ND ones, with teaching related to abuse (how to recognise and report it). This may consequently improve the outcomes of romantic relationship experiences in the ND young population. ND young people also reported feeling "different" and hence needed to mask those differences, having mental health issues, as well as issues with intimacy as chief obstacles to achieving their romantic relationships. This implies that discussions about these factors should be incorporated as essential in sexuality education tailored for this group of the population.

Additionally, topics related to LGBTQ+ sexuality were also highlighted as crucial that should be included as primary teaching since at present, they were omitted in the education. Young people in this study felt that aspects related to LGBTQ+ were discriminated against across schools/colleges, young people's homes, and other institutions. This implies the necessity to adjust sexuality education to meet the needs of different groups of young people including LGBTQ+.

Furthermore, pornography was portrayed as a very powerful avenue of gaining sexuality knowledge by young people in this study. The reason for this could be the inadequate sexuality education that young people receive in schools/colleges and their homes. Appropriate sexuality education may decrease the use of pornography as a learning source. However, this result may also imply the significance of teaching young people about the consequences of watching pornography and IIOC.

Importantly, young people in this study reported the crucial role of adults (caregivers and professionals) in sexuality education. Some of them emphasised that

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despite not receiving much support and advice on the topics from their caregivers, they believed that their input would help them achieve more positive and healthier experiences in their romantic relationships. This may suggest the importance of providing appropriate support/training for parents/caregivers to facilitate them with adequate skills to conduct sexuality-related discussions with their children. Similarly, some young people in this study also believed that some of their teachers appeared not well equipped to discuss sexuality with them during sexuality education. This may also imply the significance of offering teachers adequate training to make them feel (fully) competent to teach this sensitive subject. As a consequence, young people believed that employing professionals (sexuality educators, therapists, mental health nurses) in sexuality education for young people might also be beneficial. Offering young people sexuality education that focuses on delivering teachings relevant to their needs and requirements and that it is not outdated is therefore crucial.

#### V.2.2. Findings from Educational Professionals

# V.2.2.1. Study 2 (Survey)

The survey for educational professionals comprised 26 questions. Due to low numbers of completed surveys, only descriptive statistics (which are provided in Chapter IV) and frequencies were conducted to analyse the data.

Educators reported that sexuality education in their school/college occurs once a month (40%), once a week (40%), and 20% did not know. In Tables 12 and 13 further responses to the survey are included.

Table 12 presents educational professionals' "Yes" responses for each group of young people.

**Table 12.** Educational professionals' "Yes" responses from the survey.

Educational professionals (n=5; 100%).

	Group with ASD	Group with ADHD	Group with ASD co-occurring with ADHD	NT Group
Does your school/college provide students, in the following categories*, with any interventions or educational support sessions to improve their social communication skills?	40%	20%	20%	40%
Have your students ever talked to you about their dating or romantic experiences?	60%	80%	60%	60%
Have your students ever talked to you about encountering any challenges while dating or being in a romantic relationship?	60%	60%	60%	60%
Do you have any concerns about your students dating or becoming romantically involved with another person?	60%	60%	60%	40%
In your experience, do you have any concerns about the abilities of your students to recognise that someone likes/is attracted to them or not?	80%	60%	80%	20%
In your experience, do you have any concerns about your students' abilities to recognise whether their dating or romantic relationship is healthy or not?	80%	80%	80%	60%

Do you think that students may be more vulnerable,	100%	80%	100%	20%
than other people their age, to being abused by another person/their partner while dating/being in a romantic relationship?				
In your experience, do some of your students fear dating or romantic relationships?	80%	40%	60%	20%
In your experience, do you have any concerns about your students' showing behaviours that may be perceived as inappropriate when trying to show another person that they like them/are attracted to them?	80%	80%	60%	20%
Do you think your students may be more vulnerable, than other people their age, to experiencing cyber- bullying when online dating?	80%	80%	80%	20%
Do you think that students may be more vulnerable, than other people their age, to sexual grooming when online dating?	80%	60%	80%	40%
Do you have any concerns about your students learning about sexuality, dating and romantic relationships from the internet?	80%	80%	80%	60%
Have your students been taught about contraception?	60%	60%	60%	60%
Have your students been taught about STDs?	60%	60%	60%	60%
Have your students been taught about not making important decisions about sexual activities while affected by alcohol or drugs?	60%	60%	60%	40%
Have your students been taught about hygiene?	60%	60%	60%	40%
Have your students been taught about menstruation?	100%	100%	100%	80%

Have your students been taught about	80%	80%	80%	60%
reproduction/pregnancy? Have your students been taught about the	40%	40%	40%	20%
consequences of getting pregnant?	40%	40%	40%	2076
Have your students been taught about understanding	80%	80%	80%	80%
healthy/unhealthy relationship?				
Have your students been taught about abuse?	60%	60%	60%	40%
Have your students been taught about how to deal	20% (80% did not	20% (80% did not	20% (80% did not	0% (80% did
with sexual abuse?	know)	know)	know)	not know)
Have your students been taught about romantic	40%	40%	40%	20%
rejection?				
Have your students been taught about dating?	60%	60%	60%	60%
Have your students been taught about marriage?	40%	40%	40%	40%
Have your students been taught about having	20%	20%	20%	20%
children?				
Have your students been taught about pornography?	80%	80%	80%	60%
Have your students been taught about indecent	40%	40%	40%	20%
images of children [IIOC]?				
In your experience, do you think your students have	40%	40%	40%	20%
good knowledge about sexual health?				
Would technology-based support (e.g., particular	100%	100%	100%	80%
applications, devices, videos, etc.) help students learn				
about sexuality, dating and romantic relationships?				
Do you think it is/would be beneficial to tailor	80%	80%	80%	40%
sexuality education specifically for students?				

In your experience, do you think that the current sexuality education at your school/college is appropriate for students?	40%	40%	40%	40%
Does your school/college collaborate with parents/carers with regards to sexuality education for their children?	40%	40%	40%	20%
Do you feel your school has equipped you with the necessary skills and materials to teach students about sexuality, dating and romantic relationships?	20%	20%	20%	80%

\* 'in the following categories'- is a part of a question for each item and it refers to groups of students (with ASD, ADHD, ASD co-occurring with ADHD, and NT)

From the educators' responses, it may be indicated that not many young people are provided with additional support in schools/colleges to improve their social communication skills, despite that the educators in this study reported having concerns about their students' romantic relationships. The educators additionally reported having concerns about their students being more vulnerable to being abused and experiencing bullying, and sexual grooming than other people their age. Notably, topics related to abuse were taught during sexuality education to students in schools/colleges. However, topics related to dealing with sexual abuse were reported as being taught only by one educator. This may indicate, that although students may have an understanding what abuse may mean, they may lack a practical knowledge of how to deal with it, or how to report it. This consequently may leave some of them in potential danger of being in an abusive relationship and not knowing how to manage the situation. Therefore, this may indicate that topics related to managing abuse are essential to be taught to young people during sexuality education. Educators also reported having concerns about students, especially ND, learning about sexuality from the internet. Notably, they also reported teaching subjects related to pornography to their students. Additionally, educators reported that their students (ND and NT) may not have a good knowledge of sexual health. This may indicate that there is a need for improving sexuality education in schools/colleges for young people.

Table 13 presents responses to one question (barriers to romantic relationships) from the survey for educational professionals.

**Table 13:** Educational professionals' "Yes" responses to the question about barriers to romantic relationships in young people.

**Barriers to romantic relationships** Group Group Group with NT with with ASD Co-Group ASD ADHD occurring with ADHD Contact with others is too tiring for them 20% \_ 20% They haven't yet met the right person they 20% 20% 20% 40% would like to date/be with

Educational professionals (n=5; 100%).

They worry they may not be able to fulfil another person's/their partner's expectations	-	20%	-	40%
They don't understand how dating or a romantic relationship works, or how to behave during dating, or while in a romantic relationship	20%	20%	40%	-
They don't like the physical contact that dating or a romantic relationship may involve	20%	-	-	-
They just don't feel the need to date or be in a romantic relationship	-	20%	-	-
Other	20%	20%	20%	-

- Blank cell indicating that "Yes" was not applicable for the group.

Some educators reported barriers that their students may encounter while navigating their romantic relationships. Interestingly, aspects related to students' lack of understanding of how dating or a romantic relationship work, or how to behave during dating, or in a romantic relationship were reported only for ND young people. This may indicate that educators might be aware that ND young people may have greater difficulties understanding romantic relationships when compared to NT peers. Subsequently, providing ND young people with additional support in this context might be beneficial.

## V.2.2.2. Study 3 (Interviews)

Five themes were identified from the semi-structured interviews with the educational professionals (N= 9) (see Table 14):

- Theme 1 offers educational professionals' perspectives of current sexuality education provided to young people in educational institutions including existing approaches to teaching.
- Theme 2 focuses on educational professionals' perceptions of neurodivergent young people's romantic relationship experiences and how the existing sexuality education is inadequate to these young people's needs in terms of offering them appropriate knowledge related to romantic relationships.
- Theme 3 focuses on educators' perspectives of improving sexuality education to make it more beneficial for young people.
- Theme 4 discusses educators' views on their preparedness or lack thereof to teach sexuality education to young people, as well as suggestions for appropriate support in this context.
- Theme 5 discusses the importance of collaboration between schools/colleges and students' parents, as well as schools/colleges, parents, and professionals in terms of sexuality education for young people.

All themes discuss aspects which educators reported as common to NT and ND young people. Notably, some subthemes, however, specifically relating to ND students.

Theme 1. Inadequacy of school-based sexuality education	<ul> <li>Subthemes</li> <li>Essential topics specific to neurodivergent students</li> <li>Existing approaches to teaching sexuality education</li> </ul>
Theme 2. Current sexuality education is failing neurodivergent young people in relation to their romantic relationships	<ul> <li>Subthemes</li> <li>Educators' views on neurodivergent students' attitudes to discussing sexuality and relationships with teachers</li> </ul>
Theme 3: Sexuality education needs improving	
Theme 4. Ill-equipped staff to teach sexuality education Theme 5. Collaborative efforts	Subthemes <ul> <li>Need for training for staff</li> <li>Subthemes</li> </ul>

**Table 14:** Themes from the semi-structured interviews with educational professionals.

- Importance of parental involvement
- Professionals' involvement

## Theme 1. Inadequacy of school-based sexuality education

Similar to young people's perspectives, from some educators' narratives it was clear that only basic topics related to sexuality were taught during sexuality education in schools:

"[...] it was a focus on the biology and like on both how the body is built and puberty and the how STDs work [...]" (E7, a trainee teacher)

Besides those basic topics, one educator, who worked in the youth centre, mentioned the importance of teaching about pornography to young people:

"[...] we will talk about porn and expectation versus reality [....]" (E4, a youth worker)

As emphasised by another educator, distinguishing fiction from reality in pornographic materials might be especially difficult for some autistic young people:

"I think autistic kids would be more inclined than other kids to if they saw something in porn assume that that is what happens in real sex life. So, making sure they're getting really clear information about that as well." (E3, a speech and language therapist) The extracts above might indicate that sexuality education for young people, and especially ND ones, apart from basic topics (e.g., reproduction and pregnancy), should include topics related to pornography and focus on teaching related to unreal messages that are portrayed in pornographic materials in terms of romantic relationships. Given that pornography was reported as a common way of gaining sexual knowledge by some young people in this study (as discussed in detail in the previous section), focusing on it during the lessons may indeed be essential. The lack of adequate sexuality education was also highlighted by educators who have drawn attention to the fact that some autistic young people enter college without having basic knowledge regarding sexuality and romantic relationships and, therefore, they seek information on the topic from their college teachers:

"[...] they [students] are from 19 to 25 [years old] so they should come in with some kind of knowledge to me [...] I would say 90% is very limited or no knowledge at all [...] So we can actually see kind of results of lack of education and it's very, very difficult [...] (E8, a teacher)

This may indicate that the sexuality education provided in some high schools might not be adequate for autistic young people; consequently, they may not gain much knowledge from the lessons. Therefore, efforts could be made to adjust the education to autistic young people's needs to make it more beneficial for them.

The inadequacy of sexuality education was further emphasised in terms of missing topics related to LGBTQ+ sexuality. For example, one educator (E4, a youth worker) highlighted that in the youth centre they work, they cover aspects related to LGBTQ+ sexuality since the young people who come to the centre report that schools mostly focus on heteronormative sexuality. Similarly, school-based educators also reported a lack of teaching related to non-heteronormative sexuality:

"No! Nothing like that, sadly, nothing [sexuality education related to LGBTQ+ people]" (E1, a teaching assistant)

From the educator's (E1, a teaching assistant) narrative, it is apparent that some educators, in this case a teaching assistant, may understand the necessity for inclusive sexuality education for young people. However, it may be indicated by the participant's emphasis "[...] *sadly, nothing* [...]", that they are not the ones who make decisions about the taught subjects. Given that teaching support staff spend a lot of time with some students, especially those with special educational needs and disabilities (SEND), they may understand their students' needs better than some class teachers do. Therefore, consulting them on the teaching (e.g., topics, material, ways of delivery) related to sexuality for ND students might be useful. Furthermore, this lack of inclusive sexuality education was emphasised by many young people in this study. This indicates that the current system of sexuality education does not provide education for LGBTQ+ individuals, which unavoidably impacts on their feelings of exclusion from society (as discussed in Chapter I).

#### Subtheme: Essential topics specific to neurodivergent students

Some educators mentioned the importance of covering some specific topics with ND students that are not discussed with the rest of the students in the mainstream class. For example, in terms of students with ADHD, it was important to teach them "[...] *how to deal* [...] *with rejection...something very basic because we don't really teach mainstream students how to deal with rejection* [...] *for them* [young people with ADHD] *maybe the main issue* [...]" (E1, a teaching assistant). This may imply that young people with ADHD might have different requirements in terms of the taught topics during sexuality education than their peers without the condition and hence these differences should be considered while designing appropriate programmes of teaching. Rejection is indeed a sensitive topic for many people with ADHD who display greater difficulties with managing it when compared to their peers without the condition (Beaton et al., 2022). This may imply the importance of incorporating it into sexuality education tailored for this group of the population.

Aspects related to appropriate versus inappropriate behaviours were highlighted as essential topics that should be covered with autistic students, for example:

*"But it's more about appropriate, inappropriate behaviour is not kind of directed to sexuality* [...] (E8, a teacher)

As emphasised by one educator, the lack of understanding of this matter in some autistic young people may have serious legal consequences:

"But in the UK like I know in my experience [...] police can come to school if such thing happens in school [e.g., masturbating in public] [...] They straight away like ring police officers comes and question these kids like and they are find themselves as sexual offenders like which is like is it this kid's fault or like? Why what this kid was did was, was it his fault like no one really taught this kid how to be appropriate." (E5, a teaching assistant)

This implies the seriousness of a potential lack of understanding of inappropriate behaviours in terms of sexuality in some autistic young people. The consequences of this lack of knowledge were discussed in more detail in Chapter I of this thesis. Therefore, ensuring adequate support in this area for the autistic young population might be critical. Additionally, some educators pointed out that some topics related to sexuality (e.g., contraception, reproduction, relationships, and sex) might be distressing to some autistic students and thus educators should adopt adequate approaches to delivering these subjects. For example:

"[...] we found that some of them would really struggle with this topic [pregnancy and contraception] in particular that some of them didn't want to know at all, and I found it really difficult topic to discuss or to look at pictures or you know to discuss it with other people. It was so we really had to sort of adapt how we taught it." (E6, a teacher)

This implies the necessity of modifying sexuality education that would still include the essential topics in teaching, however, they would be provided in a more accessible way for

autistic learners. Notably, some educators, additionally, emphasised the importance of providing teaching related to LGBTQ+ sexuality that would specifically aim at autistic young people since *"quite a few people that are autistic that are trans* [and this would help them] *feel like they're more accepted."* (E6, a teacher). Further recommended topics that should be taught to autistic young people were *"gender, it really needs to be on the curriculum"* (E6, a teacher) *and "sensory information"* (E2, a teacher). As highlighted by some educators, it appears that autistic young people may also need signposting to know how and where to receive support regarding their romantic relationships:

"So, kind of, maybe there's signposting to like service, adjacent providers, things like that. Or services that might be for the wider population, that an autistic person might not necessarily think to take those steps there [...]" (E2, a teacher)

From the educators' narratives, it may be implied that autistic young people might require greater adjustments to sexuality education than their peers with ADHD since they specifically focused on providing factors that would enhance sexuality education for this group of young people. Or the educators that participated in this study might have a greater understanding of autistic young people's needs in terms of specific topics included in sexuality education than other ND groups (with ADHD and ASD co-occurring with ADHD). Nonetheless, the offered suggestions imply that there might be a pressing necessity for providing autistic people with tailored sexuality education that would include subjects that are not necessarily taught to other groups of young people.

#### Subtheme: Existing approaches to teaching sexuality education

Educators in this study also discussed approaches utilised for teaching sexuality education. Some described practical exercises as very beneficial in providing sexuality education to young people including allowing students to practise putting condoms on an artificial penis, or applying practical games in teaching: "[...] you give everyone a flower and water mixed together in a cup and they have to go and pour bits into each cup. And it's meant to represent having sex with lots of people, but some of them don't realise that they've got cornflower in theirs and then at the end we put the ID in it and that like changes colour depending on how much corn flour is like contaminated there and so then that visually shows that like well you weren't wearing a condom, so you know you've got STD's and stuff." (E4, a youth worker)

As highlighted by another educator, practical activities might be especially beneficial for young people with ADHD:

"[...] so, kids with ADHD tend to really benefit from practical activities and many hands-on things, and really benefit from learning outside the classroom as well." (E3, a speech and language therapist)

Technology application in sexuality education was also mentioned as a valuable resource in teaching by several educators:

"They live to they like to spend time on the computer and playing games. Uh, some sort of like role play might be role-playing games in that kind of around that theme might be useful." (E5, a teaching assistant)

However, some educators highlighted that some technology-based resources might not be appropriate for some autistic students as they are not designed to "*take into account the specific needs of autistic children.*" (E6, a teacher) or some of "*the visual resources* [might be] *really overwhelming and very graphic.*" (E3, a speech and language therapist):

"They [some autistic students] found the video more distressing that me talking about something." (E1, a teaching assistant)

This may indicate that, although generally technology-based sexuality education for young people might be beneficial, the existing resources are not always adapted to autistic students' needs. Therefore, it might be important to design specific resources in a way that would also be appropriate to the needs of autistic students (Bloor et al., 2022).

From the narratives provided, it was also apparent that ND young people may require further specific approaches to teaching that may not be necessary for their NT peers. However, even within the ND community, there may be differences between the groups (autistic and ADHD) that should be considered while designing lessons. For example, as reported by some educators:

"I'd say that you know autistic students are more like a...some extreme points of view...Yes, or no, there's nothing in between...While my students with ADHD are kind of, they can be extreme, but they are more flexible, I think, they understand better that there are grey zones and things like that." (E1, a teaching assistant)

"And they're [students with ADHD] often better [than autistic students] at interpreting the nonliteral language. And they often really appreciate humour and quite slapstick silly humour." (E3, a speech and language therapist)

The extracts above provide interesting observations that could be considered when designing sexuality education for ND groups of young people. Furthermore, this may also imply that teaching staff (teachers and teaching assistants) may be one of the most valuable sources of information in helping to establish the most appropriate approaches to teaching sexuality to different groups of the ND population. Therefore, their accounts on the topic might be vital.

In this study, educational professionals additionally offered their insights in terms of the existing applied approaches to teaching sexuality to ND students. For example, educator 3 utilised programmes specifically created to teach sexuality to autistic young people. One of the programmes was called "Sex and Relationships" and it consisted of two books. The first book focused *"on relationships, trusting relationships, consent, and what makes a good friend, what makes a good partner"* and the second book focused on *"more*  around sex, and it does cover sex and pleasure [...] contraception [...] sexual abuse and how to report that [...] (E3, a speech and language therapist). Educator 3 believed that that programme was very beneficial for the autistic student they worked with in terms of giving them the right information about sexuality that they needed. The same participant also used a resource called "Talking Mats", which allows young people to communicate their thoughts and feelings without using much verbal language. That tool was also applied specifically to teaching autistic students. Furthermore, role-playing was another tool that was regarded as very useful in teaching sexuality to autistic students and recommended by another educator:

"I find it useful as all like social scenarios when you do role play in social scenarios it really helps them [autistic students] to understand." (E5, a teaching assistant)

Involving discussions after the role-playing activity was also highlighted as beneficial:

"[...] and then we'd have discussions about things afterwards and it was more like and social situations really like...uh, people modelling social situations [...]" (E6, a teacher)

The narratives above indicate that there already exist some specific approaches to teaching sexuality education that some teachers recommend as successful in enabling some autistic students a good understanding of the topic. These approaches could be shared amongst schools/colleges via effective collaborations. However, to enable such knowledge exchange across schools/colleges, it is essential to acknowledge sexuality education as a vital subject in teaching, which, as indicated in this study by young people, appears to be questionable.

Despite the resources that some educators mentioned for use with autistic students, in the narratives there were also voices of discontent over the unavailability of such appropriate resources to teach sexuality education to this group of young people:

"So, it's more like what [resources] we find ourselves [...]" (E8, a teacher)

"[...] there isn't really a programme for them [speaking about autistic students], it's very much the personal assistant choice to, you know, provide this kind of [programme] [...]" (E1, a teaching assistant)

As reported by educator 1, some teaching assistants are not provided with any instructions on how and what to teach to ND students during sexuality education, it is thus their decision to create a programme of teaching. It is therefore important to note the essential roles of teaching assistants in creating the appropriate resources to teach sexuality to ND students. This additionally necessitates the urgency in enabling adequate training and resources for teaching assistant staff to equip them with appropriate knowledge, skills, and materials to deliver the lessons. Consequently, the need to provide resources that would be tailored to the autistic population was again emphasised as vital by some educators:

"We need to have a programme where, some structure, you know, where we can have some list of topics and structured programme for them." (E1, a teaching assistant)

"[...] making education in general suit autistics [...]" (E7, a trainee teacher)

Additionally, well-adapted for autistic people technology-based resources might also be beneficial in teaching sexuality:

"So that one's about taking nudes and sending them to people. So that video is very accessible for autistic kids because it's just very literal, and animated and quite slow-paced." (E3, a speech and language therapist)

This is an interesting observation given that some educators in Bloor et al.s' (2022) study indicated that cartoon images may not be suitable for autistic learners as they do not portray real life. Nonetheless, from the narratives provided it might be indicated that it is important to establish resources that would be suitable for autistic young people since, at present, educators must develop or adjust the existing material to suit autistic students by themselves.

Theme 2. Current sexuality education is failing neurodivergent young people in relation to their romantic relationships

The existing inadequacy of sexuality education for ND young people and its subsequent impact on ND young people's romances was additionally evident when educators discussed their perspectives of romantic relationships in this group of young people. For example:

"Uh when I was working in the school like you see teenagers with autism, and obviously, they have this interest was having a partner like as they grow up, they do want to be like everybody else they have... they don't know how to communicate with the opposite sex if they're interested in the same sex, they don't. They do not know how to approach in the first place [...]" (E5, a teaching assistant)

This highlights that some educators are aware that some ND young people might be interested in forming romantic relationships; however, they may lack basic skills to do so. This, in turn, indicates that there is a requirement to adjust the system of sexuality education that would incorporate the aspect of romantic relationships with a specific focus on autistic young people to help them acquire adequate skills (e.g., appropriate ways of showing another person that they are attracted to them or knowing where and how to find a potential romantic partner [since, in this study, some autistic young people mentioned these aspects as vital to be included in sexuality education]) essential to know how to gain a romantic relationship. This type of learning could be achieved by incorporating specific programmes for example, videos portraying situations where young people initiate conversations with other people that they find attractive, followed by appropriate discussions about that topic afterwards (see Rothman et al., 2021).

Some educators additionally provided examples of the romantic relationship challenges that some of their autistic students experienced; for instance, dealing with a change caused by a breakup was challenging for an autistic male:

"[...] because it was quite interesting for me to see someone completely, you know, flummoxed by, what do I do now, you know, it was easy yesterday, she was my girlfriend, and I was the boyfriend, and we were happy. But today, that world has completely changed [...] well, I knew how to behave yesterday. I'm not sure how I need to behave now." (E2, a teacher)

A breakup with a romantic partner constitutes a (sudden) change in the person's life; one educator highlighted the adverse, sometimes tragic, consequences that the inability of dealing with encountered changes in the lives of some autistic people may cause:

"[...] because we've got to help autistic children to be able to understand that change can cause lots so much stress and anxiety but give children the tools to be able to manage that better. So, we've really got to start teaching autistic children about selfregulation and how to how to manage, change and transition so that they don't feel that they need to take their own lives." (E6, a teacher)

Given that adherence to the routines is one of the aspects associated with autism (as discussed in Chapter I), teaching autistic people ways of managing changes in life circumstances (e.g., a breakup with a romantic partner) in the context of romantic relationships might me essential. This again could involve a video clip illustrating a situation when a person needs to deal with an important change in their life caused by a break-up with their partner. The video could portray various ways of managing such a situation, followed by discussions with a teacher about it. This again signifies a need for tailored sexuality education for autistic young people.

Vulnerability to exploitation in the context of romantic relationships in autistic young people, which may be the consequence of a lack of appropriate sexuality education, was also highlighted by some educators, for example:

"So, one lad, in particular, he's recently told me he's seen someone online who's told him that he's 16. But he's got a really big beard [...] For a lot of [autistic] teenagers I work with they are not very skilled at identifying if someone's trying to take advantage of them." (E3, a speech and language therapist)

One participant additionally highlighted that some of the autistic students they work with might have theoretical knowledge regarding romantic relationships, but they lack the practical understanding of how to apply it, which also may render them vulnerable:

"We've got learners when they could tell you everything about sex could tell you about everything about how relationship should look like [...] So, they've knowledge but they don't have the skills to apply it and they're very vulnerable." (E8, a teacher)

Given this information, a focus on recognising potential abuse or exploitation in romantic relationships might therefore be another crucial factor that should be considered in the curriculum when designing sexuality education for autistic young people. This may be especially critical as in this study only ND young people (and not NT ones) voiced having experienced abuse in their romantic relationships. Some of them did not even recognise that the abuse was happening until much later in life. Additionally, young people, who experienced abuse, might be traumatised by it and this, in turn, may be linked to future mental health issues such as depression (Bendall et al., 2023) (which is one of the most commonly co-occurring conditions with autism [as discussed in Chapter I]). Additionally, the experience of abuse may cause their lack of interest in pursuing romantic relationships in future, despite their desire for it (as also reported in this study by some ND participants).

Some educators discussed barriers to achieving romantic relationships specific to young people with ADHD. Impulsivity was highlighted as one of the greatest barriers to achieving a satisfying romantic relationship for a person with ADHD:

"So, in that case, for them maybe the main issue is they can be quite impulsive...they could say I'm gonna do that [...] Not really think about the consequences [...] we would need some kind of restorative conversation, so you know, to help them understand that what they did was not [good] for the other person and things like that, so yeah, impulsivity is the main kind of barrier [...]" (E1, a teaching assistant)

This implies that focus on impulsivity and how to control it in the context of romantic relationships should be included in the curriculum tailored specifically for young people with ADHD. Inhibitory control, which involves response inhibition and interference control, in individuals with ADHD is indeed one of the core areas of impairments (Çelik et al., 2023), and, therefore, this may inevitably affect romantic relationship experiences in people with ADHD. All young people need to learn to manage conflicts within their romantic relationships, however, this task might be exacerbated by impulsive responses to encountered challenges in some people with ADHD (VanderDrift et al., 2019). Therefore, young people with ADHD may require special attention to learn to manage conflicts appropriately.

# Subtheme: Educators' views on neurodivergent students' attitudes to discussing sexuality and relationships with teachers

Despite the reported lack of support for ND students in terms of their romantic relationships, some educators' narratives indicated that some autistic students feel open to discussing their romantic relationships with their teachers:

"[...] there are some students they got up some kind of [romantic relationships] experience already. Uh, all they want, they feel like they like somebody, so they will come to us [teachers] and they talk about it." (E8, a teacher)

Having an autistic teacher may positively contribute to the autistic student-teacher open discussions related to romantic relationships:

"And I think they feel very easy talking to me, I'm sort of open that I'm autistic at work, and that they put me onto the market material [...] I can't really escape it, but so they feel like they can just talk to me about anything." (E2, a teacher)

Notably, when this educator (E2) was asked whether students with ADHD also ask him for any advice on romantic relationships replied:

"No, no, weirdly, no." (E2, a teacher)

Given that the existing literature highlights that many young people with ADHD struggle within their romantic relationships (as discussed in Chapters I and II), it may be suggested that some of them would benefit from support and advice on this matter. The fact that, as reported by educator 2, students with ADHD may not seek advice on romantic relationships from their teachers, may indicate that there might not be an encouraging environment for them to do so. That means that due to the lack of discussions related to romantic relationships during sexuality education, as reported by many young people in this study, they may feel there is no space for them to seek advice on this topic. Therefore, ensuring an adequate environment (e.g., by designing lessons specific to romantic relationships during sexuality education) where young people with ADHD feel encouraged to discuss issues related to romantic relationships with their teachers might be crucial.

## Theme 3: Sexuality education needs improving

As a consequence of inadequate sexuality education, educators in this study offered suggestions for making the current system more beneficial for young people. Some indicated that providing sexuality education from an early age might be beneficial (Room, 2019):

"Like I was aware [about sex when I was] maybe like six years old. I think I was quite young. But then I wasn't interested. But then about 13 it's just clicked in very, very strong. So, I think before that point would have been very useful, I don't think there's any advantage in getting the education afterwards, I'd rather be embarrassed and confused, but at least know, rather than start having all the feelings, and then you start grasping in the dark [...]" (E2, a teacher)

However, the teaching subjects should be *"safe and age-appropriate"* (E4, a youth worker). An earlier start to teaching sexuality education may reduce the existing embarrassment that many young people reported having experienced during the lessons. This may also help decrease the existing taboo in society about sexuality since when young people start to discuss it at an early age, they may also treat it as something "normal" that is openly discussed in society. This open approach may inevitably create spaces for young people to ask questions related to sexuality. As a result, their knowledge may also increase influencing positively the outcomes of their romantic relationship experiences. Some educators additionally reported the importance of providing a conducive environment to teach sexuality education to young people:

"I think we create an informal atmosphere, and we make it fun and a bit silly and so young people don't feel as awkward. I think if you present it really formally, some young people are naturally going to be like, oh, this is so embarrassing." (E4, a youth worker)

Making the lessons interesting might be especially important when working with students with ADHD to keep them engaged:

"[...] do some spoken word, performance, or a play, or something that just got the kids involved and motivated and interested, I think the ADHD kids would really benefit from that." (E3 a speech and language therapist)

Some educators also focused on discussing what a conducive environment may entail for autistic students; ensuring that students are not "under pressure [and work] in small groups" (E6, a teacher), offering "pre-teaching" (E3 a speech and language therapist) and "consistency" in teaching (E5, a teaching assistant), as well as permitting "time to digest that information" (E6, a teacher) was highlighted as very beneficial. Another vital aspect highlighted by some educators was to "build up really trusting relationships with autistic children because these are quite difficult topics to discuss [...]" (E6, a teacher). Another crucial factor emphasised by some educators was to provide inclusive sexuality education that would allow young people to feel accepted even if their feelings regarding sexuality differ from what typically most people may feel:

"You will like sex, but it might not be the same way as everyone else does. Or you might have these feelings and that's okay, because loads of people have these feelings, or you don't have any of these feelings, but that's okay." (E2, a teacher)

The topic of inclusivity in relation to sexuality education was also highlighted as vital by many young people in this study. As reported earlier, it appears that the current educational system fails LGBTQ+ individuals. That means that they are not given spaces to develop their understanding of sexuality and romantic relationships (Bower-Brown et al., 2021). Not only educational institutions do appear to be inadequate for this group of young people, but also their caregivers may lack the skills and knowledge to discuss with their LGBTQ+ children topics related to sexuality. This accentuates the existing lack of space for this group of young people to learn about their sexuality. To be able to deliver this type of education, however, educators should be equipped with adequate knowledge and skills related to this matter. This suggests that adequate training for them should be offered. Similarly, caregivers also ought to be provided with appropriate support and advice from professionals on how to assist their LGBTQ+ children with sexuality-related

issues. The inclusivity may also indicate incorporating topics related to asexuality, as also mentioned by some young people in this study.

Educators additionally mentioned further subjects that were missing in the current system of sexuality education, however, in their opinions, they were important and hence should be taught to young people. Aspects related to romantic relationships such as *"to know how to have a healthy relationship and how to go about it"* (E7, a trainee teacher), how to recognise *"when people are attracted to you or how to let people know* [you are attracted to them]" (E2, a teacher) were highlighted. Another recommended topic was *"sex and pleasure, which I think is really important"* (E3 a speech and language therapist). However, providing the required changes to sexuality education may first need an adequate approach taken by the whole culture. Since, as reported by some educators, sexuality is sometimes avoided for *"it's that kind of taboo topic"* (E5, a teaching assistant), however, sexuality *"is very normal"* (E1, a teaching assistant) and, therefore, it should be spoken about openly. Notably, for some educators in this study, it was essential to emphasise the importance of normalising sexuality education for the autistic population:

"The things that you wouldn't see as an issue is an issue [with regard to autistic young people]. Like for example, as I said like period is a like a big issue for some reason. I don't know why." (E5, a teaching assistant)

The existing lack of openness about sexuality toward autistic young people may create problems for some of them as they may feel ashamed to disclose their sexuality, as reported by one participant:

"And one of my kids [an autistic student], he only came out to me in summer, but I was the first person that he had come out to, and I think because I always make a conscious effort to talk to all the kids about sex and relationships and identity and sexuality. He felt comfortable in doing that. And then he initially didn't want anyone else to know." (E3, a speech and language therapist) The above extracts may imply that the existing lack of openness toward autistic young people's sexuality may create barriers for some of those young people to discuss sexuality and relationships with their teachers or any other adults. However, due to social impairments that are one of the features of ASD (APA, 2013), many autistic young people may struggle to learn about sexuality-related topics from their peers (Girardi et al., 2020). This may suggest that autistic young people could benefit from an environment where they feel accepted and encouraged to discuss aspects related to their sexuality with appropriate adults.

## Theme 5. Ill-equipped staff to teach sexuality education

The lack of appropriate sexuality education in schools/colleges, as discussed in the previous themes, might additionally be the consequence of inadequate training provided to educators since many educators' narratives have clearly drawn attention to this problem:

"No, I did not receive any type of support [...] I know from my friends' experience, and I know from my colleagues' experience that there is no kind of like education or like no one teaches you how to deal with these things [sexuality education] [...] Unfortunately, it's really bad." (E5, a teaching assistant)

Consequently, this lack of training affected some educators' self-efficacy in terms of teaching sexuality to young people:

"[...] what I find is a lot of educators are so scared about getting things wrong or not knowing the answer [...] (E4, a youth worker)

"[...] schools need to put this [sexuality education] in a curriculum nowadays and but [...] it's such a like sensitive topic, they [staff] just tend to avoid rather than talk about it." (E5, a teaching assistant).

Some educators reported that some teaching staff are ill-equipped to teach sexuality education specific to autistic students:

"I have colleagues feeling very embarrassed by, you know, talking about a student an autistic student having a crush on someone while a normal [neurotypical] student having a crush on someone is ok." (E1, a teaching assistant)

The extracts above imply that some educators may be reluctant to teach sexuality education to students and especially autistic ones due to not feeling competent about it. This incompetency may be tangible during the lessons, which was highlighted by some young people in this study. Inevitably, this may, in turn, create an environment where young people and their teachers feel embarrassed (which was also highlighted in the narratives of some young people). Furthermore, the lack of adequate training for teachers related to sexuality education may also indicate that in some schools, sexuality education is not treated seriously enough despite being on the curriculum as an essential subject. Again, this neglectful approach to sexuality education was also noticed by some young people in this study as they commented on it (as reported in the previous section).

## Subtheme: Need for training for staff

Consequently, some educators in this study voiced the need to be trained to increase their self-efficacy in teaching ND young people about sexuality:

"Just in general learning about different people, so learning about people with autism with ADHD or other your other neurodivergencies, uh, and how they can learn better [...] We don't get any specific training in how to help people with different disabilities which I think is a big problem [...] Especially now that more and more kids are getting diagnosed and need help." (E7, a trainee teacher) Others also stressed the importance of all school staff receiving training on sexuality education:

"[...] *it should be all staff attending that* [sexuality education training] *because all staff have a role in supporting our kids.*" (E3, a speech and language therapist)

Due to a lack of appropriate training to teach sexuality education, teachers may struggle to deliver this subject to ND students. Neurodivergent students, however, might require special ways of delivery (e.g., the adaptation of specific materials etc. as previously noted) of teaching, which may be even more challenging for teachers to achieve without receiving adequate training. Therefore, increasing educators' self-efficacy, by providing adequate training and support in delivering sexuality education specific to ND young people might be critical. Notably, considering the essential roles that teaching assistants play in delivering sexuality education in schools, the training should also be aimed at them to increase their competence in teaching this subject.

Some educators additionally mentioned the need to obtain sexuality education training specific to LGBTQ+ sexuality:

"So, we did talk about it, but we didn't talk much about how to create a relationship if you're gay because none of us had the experience and felt educated enough to talk much about it [...]" (E7, a trainee teacher)

The lack of teaching related to LGBTQ+ sexuality during the lessons was highlighted by many young people in this study. As indicated in the above narrative, one of the reasons for this might be that teachers may lack the adequate knowledge and skills to offer this type of education. However, it is essential that LGBTQ+ young people feel accepted in schools and, in general, in the community as, at present, they feel discriminated against (as reported in this study by some young people). Schools/colleges, therefore, ought to provide them with sexuality education that is relevant to them. Ensuring that educators

receive training that would help them increase their knowledge about LGBTQ+ sexuality to deliver appropriate, inclusive teachings during sexuality education may thus be critical.

Notably, some educators emphasised the importance of giving voice to the specific community (LGBTQ+ and autistic) members in order to obtain their perspectives on the training for sexuality education:

"But if I have that training, I'd want it to come from someone from the community. Do you know I mean? I, if I I would want someone who is LGBT to deliver that training for me to deliver down to our young people, locally." (E4, a youth worker)

*"I've always got to include and involve a really diverse range of autistic people* [in training related to autistic people's sexuality]." (E6, a teacher)

Individuals who belong to a certain community may understand the community's needs and requirements the best and therefore provide the best ways of support in terms of training. Indeed, involving the autistic community in partaking in everything that is related to autistic people's lives has been recommended by Autistica (2022). Learning from those with experience can help bring about the required changes in autistic people's lives (Autistica, 2022).

## Theme 6. Collaborative efforts

## Subtheme: Importance of parental involvement

To be able to provide a good quality sexuality education for young people, caregivers' involvement may be essential (as previously mentioned and discussed in detail in Chapter I). Similarly, in their narratives, some educators emphasised this importance: "I think parents should be involved in everything that we're doing [...]" (E6, a teacher)

As noted by one educator who works in a college with young adults, and hence they would not need permission from parents to teach sexuality to their students, they feel parental permission on this topic, as well as mutual collaboration, is vital:

"[...] they [students] can give us consent [...] but we [...] want parents be part of it." (E8, a teacher)

Indeed, parents/caregivers constitute an essential role in their children's sexuality education (see e.g., Garthe et al., 2019; Paat & Markham, 2019) and hence they should be involved in designing the lessons (Pugliese et al., 2020). In this study, young people also voiced the importance of having discussions about sexuality with their parents as they believed that could help them decrease the struggles they encounter while navigating the complicated world of relationships and intimacy. Despite the parental importance of being involved in their children's sexuality education, some educators disclosed experiencing challenges when communicating with some parents regarding aspects related to their children's sexuality:

"[...] it's that kind of taboo topic that parents are avoiding to talk to and like you feel awkward to talk about as well because of that [...]" (E5, a teaching assistant)

Some parents may avoid discussions about their children's sexuality due to not having adequate knowledge and skills to conduct such conversations. Sexuality as a taboo topic in our culture (as discussed earlier) may create further challenges for some parents to open to such discussions with their children's teachers. This may indicate the need for providing adequate support for parents to help them feel more open and competent to discuss topics related to their children's sexuality education with schoolteachers. Parent-school collaborations on this subject could also help to decrease the existing embarrassment related to sexuality education. This indicates the importance of introducing such collaborations.

As further reported by educator 5, communication with some parents of autistic students might be especially difficult, as some parents believe their autistic children "do not have sexuality". Additionally, another educator (E8, a teacher) reported that although their college has "a really good communication system with the parents [of autistic children] on a daily basis", they also encounter substantial problems with communication in terms of sexuality education. As highlighted by that educator (E8), some parents expect teachers to deal with their children's inappropriate sexual behaviours (e.g., masturbating in a public space) but "they don't want to accept the correct support [appropriate sexuality education]" [...] it's a massive barrier [...]". Consequently, that educator (E8) proposed to "educate them [parents]" on the importance of sexuality education for autistic young people to help to resolve the existing opposition.

From the educators' narratives, it is clear that parental involvement in sexuality education for their children is critical. Cultural aspects, values, and beliefs of the family should be considered in designing the lessons (Pugliese et al., 2020). Given that parental voices on sexuality education are essential (they also have the right to remove their child from the lessons if they wish to do so [DfE, 2019]), without parental permission, teachers may feel restricted in terms of what they can and cannot teach to their students. Therefore, ensuring that the collaboration between schools and parents on sexuality education occurs is vital. However, to be able to create such collaboration, it might be crucial to provide parents with adequate knowledge regarding the importance of sexuality education for young people and especially, as highlighted in this study, autistic young people.

## Subtheme: Professionals' involvement

Some educators voiced their perspectives on the effectiveness of the collaboration between parents, schools/colleges, and professionals in terms of sexuality education for

young people. One participant provided an example of such collaboration existing in their school:

"[...] we've got me, speech therapy, occupational therapy, educational psychology, and mental health practitioners as well. So, clearly, you'd have somebody from each discipline at this ITAC [individual team around the child] working really collaboratively with the family who can then raise any issues they're having, and I can share talking about social stories, or whatever resources are working in a school, for the families to use at home." (E3, a speech and language therapist)

This participant (E3), however, acknowledged that such support in schools/colleges in terms of sexuality education for young people is: *"quite a unique setup."* The importance of successful collaborative sexuality education specific to autistic young people was also emphasised:

"[...] it's more about educating staff that are working in schools and other education providers and health services and everyone working together. And bringing parents on board as well and you know anything to do with health and sexuality." (E6, a teacher)

Professionals play important roles in sexuality education for young people since young people, as reported in this study, trust their knowledge and expertise in the topic and hence they prefer to discuss sexuality with them as opposed to, for example, their teachers. Professionals may also support parents with how to effectively communicate about sexuality with their children (Flores et al., 2019), which consequently may help increase effective parent-school collaboration. The successful collaboration between parents, schools, and professionals on sexuality education for young people may additionally help reduce the existing taboo about the topic in society.

## V.2.2.3. Summary of The Findings from Educational Professionals

The findings from the survey and interviews with educational professionals indicate that current sexuality education appears inadequate for young people. The teaching mostly focuses on the biological side of sexuality, which was also emphasised in the study with young people. Despite many educators understanding the crucial role of teaching related to romantic relationships for young people, especially ND ones, they reported that schools/colleges do not always facilitate this type of support for students. Educators were aware that ND young people may require greater attention to subjects about romantic relationships than their NT peers including basic information such as what a romantic relationship is, and how to find a partner. This implies the importance of tailoring sexuality education to the needs of ND young people by incorporating specific topics in teaching that may not necessarily be essential for the NT population. Educators also voiced the necessity of modifying the existing materials (e.g., videos, pictures) to suit the ND population, as what is currently available, may not always be adequate for some ND students (e.g., some videos or pictures may cause some autistic students to feel distressed).

Educators reported various subjects that are currently not included in sexuality education, however, in their views, they are essential and hence should be taught to young people; for example, topics related to LGBTQ+ sexuality were mentioned as vital. Similar opinions came from the study with young people. This suggests that young people who identify as LGBTQ+ are not provided with the appropriate knowledge and support that would help them understand their own sexuality and give them skills to navigate romantic relationships. Some educators may realise the negative outcomes of the existing inequality for LGBTQ+ young people, however, they may feel they lack the competence to assist this group with their sexuality and romantic relationships endeavours. This calls for an urgent need to offer educators adequate training in this area. Additionally, some educators in this study felt they lacked adequate training to provide appropriate sexuality education for their ND students. This also necessitates rapt attention and consequent improvement.

Although, as highlighted in this study, many educators may feel the need to offer their students the best sexuality education possible, they may lack support on this topic from their students' caregivers. There is an existing lack of parent-school collaboration on sexuality education. Nonetheless, many educators in this study deemed such collaboration

vital. The school-parent collaboration may help some parents understand the value of effective sexuality education for their children. Some educators also appreciated the involvement of professionals in sexuality education for young people. This implies the importance of ensuring that collaboration on sexuality education among schools/colleges, parents, and professionals does exist. As a result, current sexuality education needs revising, and appropriate changes need adapting. This may help create more relevant and beneficial education for young people, since currently, as indicated in this study, what young people receive appears outdated and very limited.

## V.2.3. Findings from Caregivers

#### V.2.3.1. Study 2 (Survey)

The survey for caregivers comprised 30 questions. Due to low numbers of completed surveys (18), only descriptive statistics (which are provided in Chapter IV) and frequencies were conducted to analyse the data.

Caregivers reported that sexuality education in their child's school/college occurs once a month (22.2%), once a week (61.1%), 5.6% did not know, and 11.1% reported other.

In Tables 15 and 16, further responses to the survey are included.

**Table 15**. Caregivers' responses to questions from the survey.

Caregivers (n=18; 100%).

	Yes	Νο	l don't know/l don't remember	I'd prefer not to say
Has your child ever dated someone or been in a romantic relationship?	Present:22.2% Past: 22.2%	56.4%	0%	0%
Has your child ever talked to you about their dating or romantic relationship experiences?	55.6%	44.4%	0%	0%
Has your child ever talked to you about any challenges they have encountered while dating or being in a romantic relationship?	50%	50%	0%	0%
Do you have any concerns about your child dating or becoming romantically involved with another person in the future (if they are not dating or are not romantically involved with anyone yet)?	66.7%	33.3%	0%	0%
Do you have any concerns about your child's ability to recognise that someone likes/is attracted to them or not?	55.6%	44.4%	0%	0%
Do you have any concerns about your child's ability to recognise whether their dating or romantic relationship is healthy or not?	72.2%	16.7%	11.1%	0%
Do you think that your child may be more vulnerable, than other people their age, to being abused by another person/their partner while dating/being in a romantic relationship?	72.2%	27.8%	0%	0%

Does your child fear, or are they particularly anxious about dating, or romantic relationships?	38.9%	50%	11.1%	0%
Do you have any concerns about your child showing behaviours that may be perceived as inappropriate when trying to show that they like/are attracted to another person?	27.8%	50%	22.2%	0%
Do you think your child may be more vulnerable, than other people their age, to experiencing cyber-bullying when online dating?	66.7%	27.8%	0%	0%
Do you think your child may be more vulnerable, than other people their age, to sexual grooming when online dating?	66.7%	27.8%	5.6%	0%
Does/Did your child have sexuality education in their school/college?	88.9%	11.1%	0%	0%
Has your child been taught* about contraception?	66.7%	5.6%	27.8%	0%
* about STD's?	38.95	11.1%	50%	0%
* about not making important decisions about sexual activities while affected by alcohol or drugs?	27.8%	22.2%	50%	0%
* about menstruation?	55.6%	16.7%	27.8%	0%
* about reproduction/pregnancy?	72.2%	11.1%	16.7%	0%
*about the consequences of getting pregnant?	55.6%	17.7%	27.8%	0%
*about hygiene?	27.8%	22.2%	50%	0%

*about understanding healthy/unhealthy relationship?	16.7%	27.8%	55,6%	0%
*about recognising abuse in a relationship?	16.7%	27.8%	55.6%	0%
*how to deal with sexual abuse?	33.3%	33.3%	33.3%	0%
*about how to deal with rejection in a romantic relationship?	11.1%	44.4%	44.4%	0%
*about dating?	27.8%	33.3%	38.9%	0%
*about marriage?	16.7%	38.9%	44.4%	0%
*about having children?	50%	22.2%	27.8%	0%
*about pornography?	5.6%	44.4%	50%	0%
*about the consequences of pornography?	5.6%	44.4%	50%	0%
*about indecent images of children (IIOC)?	5.6%	44.4%	50%	0%
Have you ever received any support for how to speak more confidently and effectively to your child about sexuality, dating and romantic relationships?	5.6%	94.4%	0%	0%
Do you think it would be beneficial if sexuality education were tailored specifically for autistic young people and/or young people with attention-deficit/hyperactivity disorder in schools/colleges?	88.9%	11.1%	0%	0%
Would any type of technology-based support (e.g., particular applications, devices, videos, etc.) be beneficial for your child in terms of	44.4%	22.2%	33.3%	0%

supporting their learning about sexuality, dating and romantic relationships?				
Do you have any concerns about your child	66.7%	27.8%	5.6%	0%
learning about sexuality, dating and romantic				
relationships from the internet?				
Does/did your child's school/college	22.2%	72.25	0%	5.6%
collaborate with you with regards to the				
sexuality education for your child?				
Do you think that schools/colleges should	77.8%	5.6%	16.7%	0%
collaborate with parents with regards to				
sexuality education for their children?				

\* 'Has your child been taught'- this part of the question is included in each of the selected items followed by a specific subject.

The results indicate that the caregivers had some knowledge regarding their children's romantic relationships. Some reported that their children did not experience romantic relationships. Some indicated that their children spoke to them about their romantic relationships including sharing challenges within them, which indicates that they had parent-child discussions regarding the topic. Parents in this study additionally voiced concerns regarding their children's ability to recognise whether their relationship is healthy or not, recognise abuse, or if someone is attracted to them. They also reported that their child might be more vulnerable to experiencing abuse in a relationship, cyberbullying, and sexual grooming than other people their age.

Those concerns highlighted be parents in the preceding paragraph might be the consequence of inadequate education related to these topics since only some parents indicated that their children learnt about recognising unhealthy relationships and abuse, as well as how to deal with them during their sexuality education. This may imply that it is essential that sexuality education for young people incorporates all those subjects. The caregivers were aware that their children learnt about the biological aspects related to sexuality (e.g., reproduction/pregnancy, contraception, menstruation) during their school's sexuality education; however, only some had the knowledge about other subjects that their children learnt including marriage, children, and discussions about sexual activities under the influence of drugs or alcohol. This may be the consequence of a lack of parent-school collaboration on sexuality education, which was reported by parents in this study. However, as indicated by parents, such collaboration is crucial.

Additionally, parents reported having concerns about their children learning about sexuality from the internet; however, only some indicated that their children learnt about pornography and IIOC during sexuality education. This implies the importance of including these subjects in teaching young people since learning about sexuality from the internet may inevitably lead to encountering pornographic materials including IIOC (and young people tend to turn to pornography to learn about sexuality and relationships as reported in Section V.2.1.2.). In line with this, caregivers suggested that sexuality education should be tailored to the needs of their children.

Table 16 presents responses to one question (barriers to romantic relationships) from the survey for caregivers.

**Table 16:** Caregivers' responses to the question about barriers to their children's romantic relationships.

Caregivers' (n=18; 100%).

Barriers to romantic relationships	Yes
Contact with others is too tiring for them	5.6%
They don't know where they could meet a potential dating	5.6%
candidate, or potential partner	
They worry they may not be able to fulfil another person's/their	5.6%
partner's expectations	
They don't understand how dating or a romantic relationship works,	38.9%
or how to behave during dating, or while in a romantic relationship	
They don't like the physical contact that dating or a romantic	5.6%
relationship may involve	
They just don't feel the need to date or be in a romantic relationship	11.1%
None	22.2%
Other (no example provided)	5.6%

In this study, some parents were aware of the barriers to achieving romantic relationships for their children. The lack of understanding of how dating or a romantic relationship work was reported as one of the greatest barriers encountered by young people.

## V.2.3.2. Study 3 (Interviews)

Four themes were generated from the semi-structured interviews with caregivers (N=7), and some themes have subthemes (see Table 17):

• Theme 1 offers caregivers insights into their children's sexuality education and consequently focuses on parental perspectives on how to provide more effective sexuality education.

- Theme 2 focuses on the parental role in their children's sexuality education, as well as discussing ways of facilitating this communication including adequate support for parents.
- Theme 3 offers caregivers' views on including external professionals in sexuality education for their children.
- Theme 4 portrays parental knowledge and concerns regarding their children's romantic relationship experiences.

All themes are common for ND and NT young people.

Table 17 provides the themes developed from the semi-structured interviews with caregivers.

**Table 17:** Themes from the semi-structured interviews with caregivers.

Theme 1: Non-transparent pedagogy of school-based sexuality education	<ul> <li>Subthemes</li> <li>Parents want to be involved in their children's sexuality education</li> <li>Ways of providing more effective sexuality education</li> </ul>
Theme 2: Parental role in their	Subthemes
children's sexuality education	<ul> <li>Parents want support on how to discuss sexuality with their children</li> </ul>
Theme 3: Incorporation of external educators in children's sexuality education	
Theme 4: Parents are aware of their children's desire for romantic relationships	<ul> <li>Subthemes</li> <li>Parental concerns related to their children's romantic relationships</li> </ul>

Theme 1: Non-transparent pedagogy of school-based sexuality education

In their narratives, caregivers discussed their children's school-based sexuality education. Consistent with previous literature (Robinson et al., 2017), many reported that it is essential that their children receive sexuality education and they also provided explanations of their opinions, for example:

"[...] he needs to know what it's important in a relationship and then obviously, you don't get sexually transmitted diseases or children that are unwanted." (C1 of a child with ADHD)

However, many reported receiving no information from their children's schools regarding the subject:

"No, no, not at all [replied when asked if the school informs them about the taught topics during sexuality education]" (C6 of an NT child)

Contrarily, one participant reported receiving a letter informing them that sexuality education took place in their child's school; however, the letter lacked any information on the content of the teaching. Only one participant had some knowledge regarding what their child was taught during sexuality education; however, the information came from discussions with the child, as opposed to from the school. The participant mentioned only the biological aspects of sexuality in terms of the topics their child covered in school:

"How to prevent pregnancy, about birth control pills, obviously, condoms." (C3 of an autistic child)

This is consistent with what young people and educators reported in this study. The fact that caregivers did not receive any information from their children's schools regarding sexuality education is consistent with the lack of school-parent collaboration that educators reported. This may imply that in some schools/colleges sexuality education is not treated seriously enough to collaborate with students' parents on the subject.

However, caregivers' input into sexuality education for their children is essential (as discussed in previous sections and Chapter I of this thesis).

# Subtheme: Parents want to be involved in their children's sexuality education

Consequently, many parents emphasised the necessity of parent-school collaboration on sexuality education for their children:

"He was 11 years old, came home with a bag of condoms, got a banana and show me how to put them on. And I was mortified because I thought we should have had some involvement with that. After allowing my 11-year-old child to walk through the door a sexual health clinic. Uh, I was quite upset [...] Involving the parents... from school that could come to the parents [that they] were doing this" (C1 of a child with ADHD)

Given that sexuality is a sensitive topic and hence it should consider variations of cultural aspects in teaching (as previously discussed), lack of such collaboration may cause parental dismay as highlighted in the extract: "*I was quite upset* [...]" (C1 of a child with ADHD). This indicates that parental involvement in the design of the lessons might indeed be crucial. Furthermore, this also suggests that parents should be informed about the topics that their children cover during the lessons, this knowledge would additionally help parents to *"support that or put my own point across"* (C5 of an NT child) or recognise what sexuality-related discussions they should have with their children at home:

"[...] if teacher can't explain everything because you know, there's a lot of kids in one class. So, if they gonna inform me about what they're talking about, then I can talk with them at home about this [...]" (C6 of an NT child)

As additionally mentioned by the parent of an autistic child, having knowledge of what their child learnt in school would facilitate parent-child sexuality discussions: "[...] it also opens up a conversation link between us as well, sort of like, oh, you've done this at school..." (C2 of an autistic child)

The narratives above clearly indicate that some parents feel the need to provide their own explanations/interpretations of the sexuality topics that their children learn in schools. They may also want to ensure that their children did not misunderstand or misinterpret some information that their teachers discussed with them. Additionally, having the knowledge of what their children learnt in school may help some parents feel more open to conducting similar conversations with their children at home, since being aware that their children already discussed some topics, may reduce the otherwise existing barrier caused by the awkwardness about sexuality in general. This suggests the necessity for introducing such collaboration, especially as parents are essential contributors to their children's sexuality education (as discussed in previous sections and in Chapter I), thus their voices on this matter are paramount.

Notably, although caregivers did not have much information about their children's school-based sexuality education, some of them were aware that the school-based teaching may not be adequate for some young people, and as a consequence, young people may search for other avenues of gaining their knowledge. Pornography was reported as one of the most commonly utilised sources:

"[...] they turn to pornography most kids [...]" (C5 of an NT child)

On the contrary, one caregiver expressed no concerns about the possibility that their child might access pornography while researching topics related to sexuality on the internet:

"I don't think so. I never. She never mentioned that she looked at the pornography or something like that, no." (C3 of an autistic child)

Given that some young people in this study indicated that pornography is one of the main sources of sexuality education for many young people, the caregiver's (C3 of an autistic child) narrative may imply that some parents lack a full understanding of the common usage of pornography among young people (see Massey et al., 2020) and the importance of discussing this subject with their children. Some parents, although they might be aware that their children turn to pornography to learn about sexuality and romantic relationships, may lack the competence to speak to them about it and hence prefer to avoid the topic altogether. Pornography, however, may lead to various problems in young people's lives, which were discussed more in detail in Chapters I and II, as well as by some young participants in this project. This indicates that young people's access to pornographic materials should not be treated lightly and hence caregivers should be offered appropriate support/training to feel well-equipped to discuss it with their children.

## Subtheme: Ways of providing more effective sexuality education

Although, in this study, caregivers reported not being involved in their children's school-based sexuality education, many of them offered suggestions for improving the current system of sexuality education for young people, which indicates their interest in their children sexuality education. Some voiced their opinions of providing an earlier start to sexuality education:

"I think that by the time they get to high school, they're all like awkward and approaching puberty and stuff like that and everything, whereas if it was tackled a little bit earlier in a very sensitive way sort of like, you know, it gets the children used to talking about it earlier." (C2 of an autistic child)

Similar voices were raised by some young people and educational professionals in this project. An early start to sexuality education might help reduce the existing embarrassment that many young people in this project reported feeling during their

lessons. Therefore, ensuring that young people have early access to sexuality education might indeed be beneficial.

Although many caregivers did not know what topics their children learnt in schools, they offered insights into the subjects that they believed were important and should be covered during sexuality education including *"contraception"* (C7 of an NT child), *"consent"* (C4 of an NT child), *"how your body reacts to sexual intercourse maybe how you feel afterwards and before* [...]" (C3 of an autistic child) and sexual pleasure *"how to please a woman."* (C5 of an NT child). Some caregivers also highlighted the importance of teaching related to romantic relationships:

"[...] discussions about relationships and what they mean [...] but you need to learn about emotions that can arise in a relationship [...] from conflict to love to everything [...] Teach about co-dependency [...] self-awareness so there are aware of their own behaviour [...] from sexual to emotional to gaslighting all of this should be taught in schools." (C5 of an NT child)

Topics related to LGBTQ+ sexuality were emphasised only by a caregiver whose child identified as LGBTQ+:

"And also, I think it should be touched upon the subject LGBTQ more often and like how to respect all those people's sexuality, because that is a lacking in school." (C3 of an autistic child)

Given that some young people in this project reported that they could not disclose and talk openly to their parents about their non-heteronormative sexual orientations due to feeling unaccepted, it is worrying that only one caregiver voiced the importance of including LGBTQ+ sexuality in sexuality education. Parental opposition to LGBTQ+ sexuality may add to the already existing discrimination against the LGBTQ+ community in society. Therefore, it may be suggested that caregivers might benefit from support/training about LGBTQ+ sexuality as this may subsequently help them become more tolerant of non-heteronormativity. Some caregivers may not discuss LGBTQ+

sexuality with their children due to having an inadequate understanding of the subject. Thus, appropriate training that would provide parents with a greater understanding of LGBTQ+ sexuality and how to effectively support their LGBTQ+ children with their sexuality and romantic endeavours may also be beneficial. This may additionally help decrease the existing stigma that some LGBTQ+ young people experience.

Some participants also discussed resources that could be applied in teaching sexuality. Many who voiced their opinions on technology-based sexuality education were optimistic about utilising it in teaching. One parent whose child was autistic, however, emphasised that some resources used in sexuality education might be distressing for some autistic young people:

"[...] recently she [daughter] was talking like oh I had to do something gross in school. It was so gross. I had a nightmare about that. Because they had to put the condoms on the I'm not sure on the like prop or something like that and she was so disgusted about that it was like oh it's so gross." (C3 of an autistic child)

This is an interesting observation as similar accounts were provided by some educators in this project. This may imply that adapting resources for teaching autistic young people might indeed be crucial. Some caregivers also indicated the need of signposting young people in order to help them find adequate information related to sexuality:

"Just remind kids about, like, about pregnancy, about uh, STD's uh about you know how to prevent STD's, pregnancy and how to how to access those tools." (C3 of an autistic child)

Similar recommendations were offered by some young people and educators in this project. Therefore, it might be important to guide young people about how to access support related to sexuality during sexuality education. Given that young people are not provided with spaces to ask questions during sexuality education (as reported by many young people in this project), they may not enquire about it. However, as the guidance on sexuality education in England clearly states, signposting young people where and how

they can receive support/advice on sexuality and relationships is one of the main subjects that should be included in teaching (DfE, 2019). Notably, as pointed out by one parent (C7 of an NT child), young people might additionally need support and guidance on how to appropriately interpret the things they read on the internet regarding sexuality.

Another aspect mentioned in the narratives was that some teachers might lack a full understanding of autism, which consequently may impact their choices of providing teaching:

"[...] like his teachers need to be more aware of the fact that sort of like, you know that information might have been received completely differently [by an autistic child]. You know, it's their [students'] interpretation of, you know, of information that's delivered because, like I say, J. can be very, very literal, you know. And, you know, there's no grey areas with him. It's black or it's white if you know what I mean [...]" (C2 of an autistic child)

This may imply the importance of providing teachers with adequate training related to neurodiversity in order to broaden their knowledge and understanding of it. This is especially crucial as ND young people may indeed require different modifications of the programmes, for example, autistic young people may benefit from different approaches to teaching than their peers with ADHD (as reported in more detail in the earlier sections). Having a good understanding of neurodiversity may help teachers choose the most appropriate resources for their ND students' needs.

## Theme 2: Parental role in their children's sexuality education

In this study, caregivers expressed openness to discussing sexuality with their children, for example:

"[...] some parents don't want to talk about that kind of stuff with their kids and yeah, in our house, we don't have like... we talk about everything [...]" (C6 of an NT child)

Despite this willingness, many parents reported that their children feel embarrassed about such conversations:

"I think he just feels a bit embarrassed." (C4 of an NT child)

Subsequently, due to the awkwardness, some young people do not share a lot of information with their parents on sexuality topics:

"J. gets very embarrassed, you know, about talking things like this [...] But it's within being autistic it's like, I don't need to talk about that, dad, because I've already done it at school, and that is conversation ended." (C2 of an autistic child)

There is an apparent culture of embarrassment regarding sexuality; young people and their teachers feel embarrassed during sexuality education in schools/colleges and young people also feel embarrassed to talk about sex with their parents. There is also a lack of collaboration between schools and caregivers on this topic, which further deepens the awkwardness of sexuality education. Consequently, due to lack of appropriate skills and competence in this matter, some parents may unintentionally make their children feel awkward when trying to initiate sexuality-related discussions with them. This strongly implies a need for creating a more open attitude toward sexuality across various institutions, and through this, starting to alter the cultural approach to it. It may also be imperative that schools/colleges collaborate on sexuality education with students' caregivers and offer them support on how to effectively and in a less awkward manner tackle sexuality-related discussions with their children.

Despite challenges that many parents encountered when trying to communicate with their children about topics related to sexuality, some of them had some basic discussions with their children about some aspects of sexuality, for example, contraception. Some also discussed aspects related to romantic relationships: *"How to be careful but most importantly how to respect other person and boundaries. How to not be* 

*pushy."* (C3 of an autistic child), and one caregiver mentioned *"what statutory rape is"* (C5 of an NT child).

The caregiver's 5 comment related to teaching about rape is consistent with many young people's reports related to abuse and the importance of discussing it during sexuality education. Given that some young people experience abuse in their romantic relationships, sometimes without even realising it (as reported in earlier sections), it may be crucial that sexuality education provides information about this important topic.

Notably, in this study, mothers believed that a son should have sexuality conversations with a father, as opposed to a mother, as this may reduce the son's embarrassment:

"Well, me and the husband, we kind of like made a pact when before we found out, like, well, so I was pregnant with both of them [both children]. And we always said if it was a if we were having a boy, he'll do the sex talk, if it was girl, I'll do it 'cause I do think men boys will...it's less embarrassing for them to speak to." (C4 of an NT child)

However, mothers are better equipped than fathers to understand sexuality of their daughters:

"[...] me like a mother, I have more contact with my daughter than my husband because he's a man. Sometimes he doesn't understand, even if he can see, our pain, he doesn't understand that. He can say I understand you are before period and you have pain, but he never experienced that pain. Then he can't imagine how some people can be in pain. This is the thing woman more can understand, woman, not man." (C7 of an NT child)

From the above narratives, it is apparent that some parents divide their responsibilities regarding sex-related communication with their children. They believe that conversations on these topics might be less awkward when conducted with same-sex people (father-son; mother-daughter). Such an approach may be problematic if a young person does not identify as he or she and may be of non-heteronormative sexual orientation. This may again imply that some parents may lack self-efficacy to discuss sexuality with their

children and therefore providing them with adequate support might be crucial. Some caregivers, however, provided advice on how to approach a child to facilitate a less awkward approach when communicating about sexuality with them. Not pressuring a young person towards discussions was emphasised as an important factor:

"But I never pressure her to talk about anything that she doesn't want to talk. Always just give her space if she wants to talk about something [...]" (C3 of an autistic child)

This is interesting as some young people in this study also raised the point about not pressuring them into such conversations. This may also imply that some parents may not initiate sexuality discussions with their children (and therefore in this project many young people, as well as caregivers reported that such conversations do not happen often and if they do, they are limited to very basic topics [e.g., reproduction, basic contraception]) to avoid making them feel pressured. Although facilitating a more relaxing atmosphere during parent-child sexuality education might indeed be beneficial, some parents may struggle with how to achieve it. Again, ensuring that caregivers are provided with adequate support to know how to handle such discussions with their children is thus vital. Another suggestion offered for how to improve sexuality-related communication with children was to use humour when discussing sexuality:

"I try to speak with S. like on funny way to make her feel more comfortable and we talk like about jokes, but on reality [about serious issues]." (C7 of an NT child)

Humour may also imply a relaxing atmosphere. Humour may indeed reduce the seriousness of the topic and decrease the awkwardness about it. However, as previously noted, caregivers may benefit from receiving training regarding adequate approaches to discussing sexuality with their children as inappropriately used humour may harm their status (Bitterly et al., 2017) and, consequently, increase the embarrassment, as well as the perception of trivialisation of the topic. This, in turn, may lead to greater avoidance of further sex-related parent-child communication.

#### Subtheme: Parents want support on how to discuss sexuality with their children

The challenges regarding parent-child sexuality discussions that caregivers in this study reported, made many of them realise the need for support and adequate training on how to effectively communicate with their children about sex and relationships. Some parents explained that when they were young, they did not receive any sexuality education and hence they lacked the appropriate skills to know how to approach it with their children:

"[...] I didn't know how to really approach it. I've never done this before, you know...Yeah, and I certainly didn't get any pep talks when I was a kid." (C5 of an NT child)

Due to the parental lack of adequate skills and approach to teaching their children about sexuality, some parents voiced the need for support to help them communicate with their children on sexuality topics in a way that would help their children feel more comfortable and open to having such discussions:

"[...] how to speak without making without it being uncomfortable for them." (C4 of an NT child)

"I think it will be good [to receive] support [...] somebody shows me a different way when I ask, how I ask, how will be my body language, and how she can read that everything, and how [I can] help her because I don't have any clue about psychology or every anything like this then I can't produce [envisage] how, S. uh, take my answer or question [...]" (C7 of an NT child)

The narratives above indicate that some parents may worry that the way they conduct sex-related discussions with their children may be inappropriate; they may also worry about their children's reactions to some questions they may ask. Due to the sensitivity of the topic, some parents may be concerned about the negative impact their incompetent approach to the topic may have on their children and as a result, they may avoid the topic altogether. Some parents, therefore, voiced the need for support in this matter. Schoolbased support was recommended by one caregiver, however, in his opinion, it was very important that:

# "[it] needs to be a conversation, not preaching." (C5 of an NT child)

From the comment above it may be suggested that, on the one hand, parents want to receive support on how to effectively discuss sexuality with their children, on the other, they do not want to feel that they are not in charge of their children's sexuality. They want their voices to be heard, as opposed to being told what and how to do things. Parents may want to be involved in sexuality education, as opposed to receiving sheer guidance on how the education should look like. This also emphasises the importance of parent-school collaboration in designing sexuality education for young people.

#### Theme 3: Incorporation of external educators in children's sexuality education

The lack of competence that many caregivers felt in terms of sexuality education for their children, might contribute to some caregivers' wish for professional support in this context from, for instance from *"nurses, GPs."* (C4 of an NT child). Some parents believed their children may feel less awkward asking sexuality-related questions to professionals than them. The cultural taboo and the consequent awkwardness about sexuality generate the idea of it being a subject that should be discussed with professionals as opposed to family members (parents). This also implies that sexuality is perceived as a problem (you are not well, you have a problem, you go and seek advice from your doctor/nurse). Whereas sexuality is an essential part of every person's life. Therefore, parents, as main care providers to their children, should have the skills and

competence to discuss sex and relationships with them. However, many parents lack this self-efficacy and hence they should receive support that would enable them to gain it.

One caregiver offered suggestions that school-based professional support could be beneficial if organised both for children and parents:

"[...] it should be useful if a school have like a session for parents and children together, like under, like with maybe health professionals or like sex educators or something like that together [...]" (C3 of an autistic child)

This again indicates that parents want to be engaged in sexuality education for their children, they want to know what the children are taught in their schools/colleges and if needed, they want to contribute their stand on the topic. Some participants additionally proposed that involving individuals that young people look up to in sexuality education would be beneficial:

"Maybe football clubs? That could do something. Maybe pop musicians could do things online like blogs...that kind of thing [...] Yeah, backed with professionals. But I think the base will be better if it was a public person that they could relate to and not under the teacher." (C5 of an NT child)

This is an interesting point as young people tend to imitate their idols and may be willing to hear what they have to say on the topic more openly than what their parents suggest. However, involving famous people in sexuality education may require an open cultural approach to the topic, which, as discussed earlier, constitutes a problem of its own.

# Theme 4: Parents are aware of their children's desire for romantic relationships

Despite the minimal parent-child communication as reported by caregivers in this study, parents had some knowledge regarding their children's romantic relationships. Only

one caregiver (C6 of an NT child) in this study reported that their child has never been in a romantic relationship, but they have been interested in it. The rest of the caregivers reported that their children had some romantic relationship experiences, and they provided some examples of positive and negative experiences, for instance:

"The first girl...uh cheated on him and he cut her off like that and that was that and we were thinking how wow, it should be devastated. You know, like anybody else, but no next, because I'll find some other girlfriends [...] And then she [the second girlfriend] finished with him. So, he was quite upset over that, but he moved on very quickly [...] he's with a young lady now and I don't know where it's going." (C1 of a child with ADHD)

From the narrative provided, it may be indicated that, although the mother knew about her son's romantic relationships experiences, she might have learnt it from her observations as opposed to from the conversations with her son given the *"I don't know where it's going"* comment. This may be due to her being the opposite sex to her child, whereas, as implied by some caregivers in this study, mothers feel more at ease discussing sexuality with their daughters and fathers with sons. This again highlights the need for adequate support for parents on sex and relationship communication with their children. Additionally, it was clear that parents understood how important romantic relationships were for their children since they empathised the emotional suffering that a relationship breakup caused their children, for example:

"Well, he had an online one. It should probably... his first real encounter with those kind of emotions with the girl from America, and that didn't end well. He got really upset about that." (C5 of an NT child)

Parents also appreciated the importance of successful romantic relationships experiences for their children since many of them spoke about the happiness of their children if their romantic relationship worked fine: "But I know now she has a boyfriend. I meet him. He's very nice and I think, S. feel comfortable with him because she invited his to our home, he was few times [...] she said next month they are like together one year. Then I say this is good for her." (C7 of an NT child)

From the preceding narrative, it is clear that the parent is supportive of her daughter's romantic relationship and that they have some conversations regarding the topic. It may, however, be implied, that these discussions may not happen often enough, or they may be rather brief as C7 also reported that *"I don't have like exactly conversations about it* [romantic relationships with her daughter]", instead C7 teaches her daughter about relationships by showing examples of her interactions with her husband *"How my child see how we* [wife and husband] *treat each other*". It may be suggested that C7 does not discuss romantic relationships very often and more thoroughly with her daughter had a shy and anxious nature. She also added that sometimes she feels she does not know how to appropriately approach such discussions with her daughter.

Autistic people might have their own unique ways of expressing their love in their romantic relationship as reported by the caregiver of an autistic son:

"[...] he's not and a flirty type or anything like that, because obviously just, you know, because of the nature of autism but erm but now it's sort of like, you know, he's always been brought up like sort of to be very loving even though he doesn't always demonstrate that you know, sort of like it's not that he doesn't feel it, he just doesn't always show it." (C2 of an autistic child)

This caregiver also highlighted that their son's girlfriend understands autism as her brother is also autistic and that helps their relationship to prosper. This may indicate that for some autistic young people, it might be important to be in a romantic relationship with someone who understands autism or is also autistic. Interestingly, this point was also made by some autistic young people in this project. This may additionally imply inadequate education related to neurodiversity, in general, and consequently may call for raising greater awareness about it to help ND young people feel more accepted in society and thus less "different" (as also indicated by some ND young people in this project).

# Subtheme: Parental concerns related to their children's romantic relationships

Not all parental narratives about their children's romantic relationships were positive; one parent voiced concerns about their child's experience of abuse in her romantic relationship:

"[...] she was abusing [abused] by friend, boyfriend [...] we try to show her whatever we can, but I think if she has bad experience now, she is like she [does] not feel safe or protected or than she is a little bit afraid of everything now." (C7 of an NT child)

Although parents may realise the importance of discussing topics related to abuse with their children, some of them also find it very difficult and therefore omit it (Kenny et al., 2021):

"[...] when he was younger, I was always afraid of abuse and sadly, yeah, I'd rather not discuss that bit...and you can't prepare them for that [...] And then you don't question there. So... but I wish I did" (C1, a caregiver of a child with ADHD)

Abuse in young people's relationships, especially ND young people (as reported in earlier chapters) is not an uncommon thing. Young people tend not to receive education regarding abuse, how to recognise and report it (as also demonstrated in this project) and hence they lack basic knowledge regarding the subject. From the above narrative, it is clear that the parent (C1) did not feel competent to discuss the abuse with their child, which consequently led to unwanted experiences in that child's life. The comment *"I wish I did"* suggests parental regret at not having discussed that topic with their child. Parents

may lack the basic skills and self-efficacy to know how to approach such sensitive topics and, therefore, they may benefit from receiving adequate support/training on this matter.

Furthermore, one parent worried that their child may be naive and hence misinterpret someone's behaviour as love:

"She she's really like, open friendly and really like sometimes even naive in this, in this like, friendliness to other people. She's got so much love to give [...] I had like conversation with her to not be that. Like I mentioned it to [not] be that naive. If someone just pays you some compliments and you think all this person is really good for me, all this person or I think I'm in love with this person because this person is really nice to me." (C3 of an autistic child)

Interestingly, this concern was voiced by a mother of an autistic transgender daughter. Autistic young people may be more vulnerable to misinterpreting someone else's behaviour or behaving in an inappropriate way towards them (their romantic partner or someone they may find attractive) without recognising the inappropriateness of that conduct than their NT peers (as also reported in this project by an autistic young person and additionally discussed in Chapter I). This again implies that parent-child discussions about romantic relationships, especially with ND children, might be vital. These topics should also include aspects related to vulnerability (e.g., abuse and naivety) in the context of romantic relationships.

## V.2.3.3. Summary of the Findings from Caregivers

From the survey and interviews with caregivers, it is clear that they regard sexuality education as an important subject for their children. However, they may not have much knowledge about what their children learn in schools/colleges during the sexuality education. Nonetheless, parents would like to be involved in their children's sexuality education; this indicates the importance of introducing effective collaboration on the topic between schools/colleges and caregivers. In this study, some parents were aware that their children use pornography as an alternative way of gaining knowledge

about sex and relationships; however, some believed that their children would not use this source. This is an interesting finding considering that many young people in this project reported that pornography is a powerful avenue for learning about sex and relationships for young people. This may indicate that some parents may need education about pornography and its usage among young people. This, in turn, may help some of them realise the scale of pornography usage and its potential negative consequences for the young generation.

Although parents were not involved in their children's school-based sexuality education, they realised the importance of adapting the existing sexuality education to better suit young people by, for example, incorporating topics related to romantic relationships into teaching. In this study (interviews), only one parent, whose child was LGBTQ+, voiced the importance of inclusive LGBTQ+ sexuality teaching during the lessons. This may suggest the need for raising greater awareness about LGBTQ+ sexuality to parents to help them increase their understanding of this matter and thus the importance of incorporating it in sexuality education for young people. This, in turn, may contribute to creating a more tolerant environment toward the LGBTQ+ community who already feel discriminated against in society.

Furthermore, although, parents may realise the crucial role they play in their children's sexuality education, they may lack the adequate skills and competence to conduct sex-related discussions with them. This highlights the requirement for providing adequate support and training for parents to help them feel more equipped for their essential roles as sex educators for their children. Some parents believed that professionals and schools could be appropriate sources of such support for them. Parents additionally were aware of the importance of romantic relationships for their children, and they felt the need to support them with their relationship endeavours. However, some lacked the skills to know how to do it appropriately, without making their children feel embarrassed. This implies the need for further support for parents in this context, as well as creating a culture that has generally a more positive and open attitude toward sexuality.

# V.3. Conclusion

This chapter provided findings from the empirical studies conducted in this project. The outcomes highlighted that sexuality education for young people is inadequate, leaving many young people, and especially ND ones, without essential knowledge related to, for example, romantic relationships (how to find a partner). Participants across all groups highlighted the need for improving sexuality education for all young people, especially for the ND groups.

The following chapter VI will offer a discussion related to the findings presented in this chapter by addressing the research questions of this project that were included in Chapter III.

#### **Chapter VI: Discussion**

#### VI.1. Chapter Overview

This chapter provides a discussion based on the findings from Study 2 (surveys) and Study 3 (interviews). The findings are discussed in relation to the research questions for this project as well as in light of the existing literature.

#### VI.2. Discussion of The Findings from Study 2: Surveys

VI.2.1. Research Question 1: What are Participants' (Young People, Educational Professionals, and Caregivers) Perspectives on Sexuality Education Provided in Schools/Colleges to Young People (Neurodivergent and Neurotypical) and Is There a Difference Between These Perspectives Amongst Four Groups of Young People (with ASD, with ADHD, and ASD co-occurring with ADHD, and NT)?

Most young people (ND and NT) in this study reported that they had sexuality education in their school/college, however, the lessons were not frequent; in many cases, there were only a few sessions for the whole school period. Interestingly, many caregivers, as well as educators, reported that sexuality lessons took place on a weekly basis. This discrepancy between young people's and caregivers' reports might be due to the inadequate parent-child discussions related to sexuality education as reported in Study 3 of this project by young people and caregivers. The discrepancy between young people's and educators' reports might be due to the very low participant number in the educators' group (n=5) compared to the young people's group (n=76). Young people reported learning mostly about topics related to biological aspects of sexuality (e.g., contraception), and caregivers and educators also reported those subjects as the main ones that were covered during the lessons. These findings resonate with previous literature investigating the subject from the perspectives of NT young people in the UK

and other countries (Astle et al., 2021; Pound et al., 2016; Sato et al., 2021). In general, in the UK, the public approaches to health and sexuality are firmly based on the biological factors and adverse health outcomes, as opposed to portraying sexuality as a positive experience (as reported in Chapter II). Interestingly, educators highlighted a greater focus on delivering the teaching about those topics to ND students as opposed to NT students. It may indicate that ND young people may require greater support in this area in order to achieve adequate understanding than their NT peers.

The lack of topics related to romantic relationships during sexuality education was highlighted by many young people (ND and NT) in this study as well as in previous literature (e.g., Goldfarb & Lieberman, 2021). The majority of parents also reported that these topics were omitted in their children's education, or some parents did not know whether their children learnt about them or not. Contrary to the reports from young people, educational professionals stated that in their school/college, teachings related to healthy and unhealthy behaviours in romantic relationships, as well as aspects related to abuse were also taught to students. Notably, since young people in this study were between the ages of 18-25, they reported their sexuality education experiences before the reform in sexuality education (as discussed in Chapter II). The educators, however, were currently in their teaching roles and hence their accounts portray the recent situation in education. Teaching related to romantic relationships including aspects of recognising abuse is compulsory in the current curriculum of sexuality education in England (DfE, 2019). This could explain the difference between these two groups' reports. Or perhaps, educators present different perceptions of the teachings they provide in sexuality education than students do in terms of what they receive. Educators might feel satisfied with the lessons and hence they report the specific teaching was delivered; however, students might have greater expectations in terms of learning the specific subject, and thus they may feel that the outcome was not delivered. This may mean that educators may mention a topic of romantic relationships briefly and feel the lesson was delivered, whereas students may require more in-depth information to feel they learn anything meaningful about it. This implies the need for student-teacher collaboration on sexuality education. The empirical evidence supports the studentfaculty approach to pedagogical practice (engaging students into co-creation of the

lessons) (see Cook-Sather, 2014). This may help to create lessons that are relevant and meaningful for young people.

Furthermore, educators in this study reported providing teaching related to pornography to all students, with a greater emphasis of it on the ND groups of students. This also serves in contrast to young people's and caregivers' reports and again, the reason might be similar to the ones explained in the previous paragraph. Not many young people, reported that topics related to pornography and IIOC were discussed during their education, however, some of them reported having concerns about learning about sexuality from the internet. Notably, half of the parents reported having no awareness of whether pornography and IIOC were covered in schools/colleges or not. This might be the consequence of the lack of parent-school collaboration in terms of sexuality education since many parents reported that their children's schools/colleges do not communicate with parents on that matter (see also Davis et al., 2021). However, in accordance with previous literature (Ballan & Freyer, 2017; Pugliese et al., 2020), in this study many caregivers voiced the importance of such collaboration.

Given that young people receive inadequate sexuality education, many tend to resort to searching for information elsewhere. The internet is one of the most common alternative resources for sexuality education (Ballan, 2012; Crehan et al., 2022). As discussed in Chapter II, NT individuals learn about sex-related topics from various avenues including their peers and family (Brown-Lavoie et al., 2014); however, for ND young people learning from unstructured social settings, as well as maintaining social contacts, might be challenging (Girardi et al., 2020). School-based sexuality education, therefore, might be particularly important for them as using the internet as a source of sexuality education may lead some of them to unwanted legal consequences (see Chapter II for more details). Educational institutions, therefore, should provide teaching to young people regarding pornography (Massey et al., 2020), especially since the prevalence of young people accessing pornographic materials is high (see Chapter II for details). Watching pornographic materials impacts young people's attitudes towards sexuality and romantic relationships and may also contribute to other sexual offences for example, sexual coercion (Bernstein et al., 2022; Wright et al., 2015).

Furthermore, educators in this study reported that technology-based sexuality education would be beneficial for all students and especially for ND students. These accounts resonate with the ones from young people and caregivers in this study. The utilisation of technology was suggested as a potential enhancement of sexuality education for the autistic population in previous research (See Chapter II and III for details). Indeed, the application of interactive technologies may decrease the potential discomfort that young people might experience during in-person discussions (Hirvonen et al., 2021 [UK]). Tailoring the teaching to the needs of students, mostly ND, was another factor reported by educators in this study. This finding is consonant with previous research (Plexousakis et al., 2020; Stankova & Trajkovski, 2021), which suggested that tailoring sexuality education for autistic young people may be advantageous in terms of increasing their understanding of various sex-related subjects such as recognising healthy and unhealthy relationships, dating ability and appropriate ways of showing affection to another person.

Notably, educators in this study also indicated that they do not feel fully equipped to provide sexuality education to young people and especially ND students. This outcome resonates with previous studies including those carried out in the UK (see Chapter II for details). A recent study conducted in England (Bloor et al., 2022) also highlighted the lack of training for teachers that would be specific to teach sexuality education to ND students. Providing adequate training and hence making teachers feel well-prepared to teach sexuality education is essential (O'Brien et al., 2021; UNESCO, 2018).

Nonetheless, research exploring sexuality education from the perspectives of autistic young people is sparse as reported in Chapters II and III of this project. In addition, the current literature lacks insights into the topic from the perspectives of young people with ADHD and ASD co-occurring with ADHD. The existing understanding of the topic in the autistic young population highlights that they report being dissatisfied with their sexuality education (Hannah & Stagg, 2016 [UK]; Joyal et al., 2021). This lack of adequate sexuality education leads some autistic young people to display greater misconceptions regarding sexuality than their NT peers do (Hannah & Stagg, 2016; Joyal et al., 2021). In this study, however, there were no significant differences found between ND and NT groups regarding sexuality and romantic relationships. In both groups, many

young people reported having various concerns regarding their abilities to navigate romantic relationships. For example, exhibiting behaviours that may be considered inappropriate when trying to show another person that they like or are attracted to them. This may imply that the sexuality education that the young people (ND and NT) who took part in the study received, did not offer them adequate teachings related to the matter. Sexuality education, however, should provide young people, including ND ones, with adequate knowledge related to romantic relationships (DfE, 2019; Long, 2020).

VI.2.2. Research Question 2: What are Participants' (Young People, Educational Professionals, and Caregivers) Perspectives on Young People's Romantic Relationships and Is There a Difference Between These Experiences Amongst Four Groups of Young People (with ASD, with ADHD, and ASD cooccurring with ADHD, and NT)?

In this study, many young people reported being currently in a romantic relationship or in a romantic relationship in the past. Outcomes from caregivers and educators also indicated that young people had romantic relationship experiences and they tended to speak about them with their caregivers and educators. This indicates the need to provide space for young people to discuss these topics with appropriate adults. The importance of parental impact on their children's approaches to romantic relationships was highlighted in Chapter II of this thesis. However, previous research (Holmes et al., 2016b) highlighted that despite the importance of such communication between parents and children, parents often feel that they lack the appropriate skills to conduct such discussions with their children. The outcome of this study showed that parents tend not to receive any support on how to effectively communicate about sex and relationships with their children. Educators also play crucial roles in shaping young people's attitudes toward romantic relationships since romantic relationships are included as essential in the current curriculum for sexuality education in England (DfE, 2019; Long, 2020).

Notably, in line with this study's outcomes, previous research including NT young people (e.g., Krahé et al., 2015; Toplu-Demirtas et al., 2022) and young people with ADHD (Chen et al., 2018; Halkett & Hinshaw, 2021) also highlighted that they tend to have romantic relationship experiences. However, the outcomes of this study (reports from autistic young people) contradicted previous findings indicating that autistic young people, although they long for a romantic relationship (Hartmann et al., 2019; Joyal et al., 2021), tend to be single (Joyal et al., 2021; May et al., 2017). Romantic relationships in young people tend to be challenging including experiences of abusive behaviours (physical and sexual violence) (Mumford et al., 2023). Autistic females were shown to experience a greater number of regretful sexual encounters than autistic males and nonautistic females (Brown et al., 2017; Joyal et al., 2021; Pecora et al., 2019). Importantly, compared to NT peers, autistic females also demonstrated lower levels of sexual awareness (Joyal et al., 2021) including their own emotions, sexual thoughts, sensations and how they present sexuality to others (Bush, 2019), which may be the consequence of inappropriate sexuality education. Many young people in this study also reported feeling more vulnerable to being abused in a romantic relationship than other people their age. Many caregivers and educators also reported having similar concerns about their children's/students' romantic relationships. Educators reported such concerns mostly about their ND students. This is also consistent with previous literature investigating parental perspectives of their autistic children's romantic relationships (André et al., 2020; Fernandes et al., 2017; Holmes et al., 2016b, 2020a; Mackin et al., 2016; Teti et al., 2019) indicating that parents are concerned about their autistic children's romantic relationships (e.g., experience of abuse, lack of romantic relationships in future). As additionally reported in Chapters II and III, autistic people might exhibit inappropriate sexual behaviours including stalking or masturbating in a public place (e.g., Holmes et al., 2016b; Ray et al., 2004). Such behaviours, however, might be the result of inadequate sexuality education and thus ensuring that young people receive adequate education on how to appropriately express sexual desires may help decrease the risk of displaying potentially unsafe behaviours by some autistic young people (Girardi et al., 2020; MacKenzie, 2018).

Furthermore, previous research additionally highlighted that young people with ADHD tend to exhibit more common verbal aggression and violence towards their romantic partners (Bruner et al., 2015; Wymbs et al., 2012) and difficulties with conflict management in their romantic relationships (VanderDrift et al., 2019) (more details are reported in Chapter II and II) .The current literature, however, does not focus on the association between sexuality knowledge and outcomes of romantic relationships in young individuals with ADHD. Nonetheless, it has been shown that the lack of knowledge about sexuality might heighten the risk of sexual exploitation and victimisation in the autistic young population (Brown et a., 2017; Joyal et al., 2021; Travers et al., 2014). Recognising factors that might contribute to difficulties with romantic relationships in the population with ADHD, as well as identifying any potential avenues of support (e.g., intervention) is hence essential (Wymbs et al., 2021). Therefore, appropriate sexuality education might help reduce the negative outcomes of romantic relationship experiences in this group of the population (Beddows & Brooks, 2016).

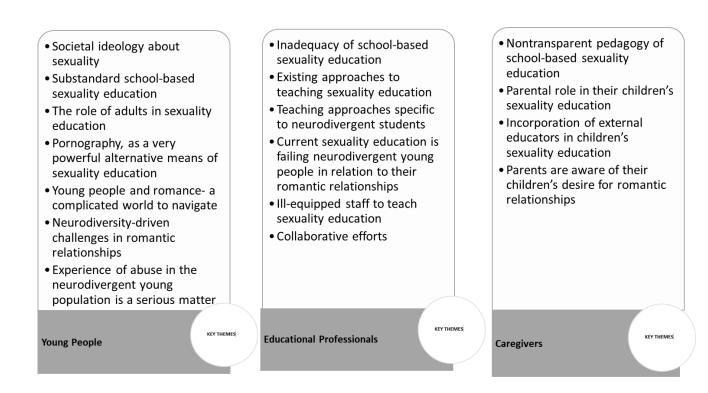
Notably, in this study, the results showed no significant differences in romantic relationship experiences between the ND and NT groups of young people. This is an interesting observation, considering that autistic young people were found to experience short-lasting romantic relationships (Cheak-Zamora et al., 2019), or fewer sexual experiences when compared to their non-autistic peers (Bush, 2019) in previous research. However, Rokeach and Wiener's (2018) study demonstrated that there was no significant difference between the quality of romantic relationships in young people with ADHD and their peers without the condition. The differences among the studies' outcomes might be explained by the use of different measures and definitions used to describe romantic relationships. Additionally, the lack of observed significant differences between the groups (ND and NT) in this study might suggest that the participants who took part in the study represented relatively similar experiences regarding their romantic relationships. Or perhaps, given that this study was conducted via survey (including short answers "Yes", "No", I don't know", "I prefer not to say"), participants were not able to provide further explanations of their accounts, which might then offer a greater understanding and perhaps highlight the existing differences (if any) in terms of romantic relationship experiences between the groups.

# VI.3. Discussion of The Findings from Study 3: Interviews

## VI.3.0. Summary of Key Findings

Figure 3 illustrates the key findings from Study 3 (interviews with young people, educational professionals, and caregivers).

Figure 3. Key findings from interviews across three groups of participants.



## VI.3.1. Societal Ideology about Sexuality

Although participants in this study did not receive any direct questions regarding societal ideology about sexuality and this subject does not answer any of the research questions, many of the narratives from young people, focused on portraying societal attitudes toward sexuality. Since these attitudes influence sexuality education both in educational institutions as well as young people's homes, it is essential to briefly discuss this subject.

Many young people in this study felt that sexuality is a taboo topic in our society (Earle & Blackburn, 2021 [UK]) and highlighted that heterosexuality is regarded as a normative construct of sexuality, whereas non-heteronormative relationships are discriminated against in our society. Indeed, Javaid (2018 [UK]) argues that heteronormativity constructs all social action, and it is acknowledged not only as a "normal", desirable sexual practice but also as a normal way of life. Heteronormativity is established via social constructs such as family, love, and romantic relationships. Heteronormative monogamous coupledom is therefore often recognised as "normal" and this ideal, consequently, is entrenched in institutional practices and state policy that construes the types of "valid" relationships (Van der Toorn et al., 2020). Falling outside of the normative frame of sexuality might hence be a very shameful experience (Gonzalez et al., 2017) as also reported by some young people in this study.

VI.3.2. Research Question 1: What are Participants' (Young People [Neurodivergent and Neurotypical], Educational Professionals, and Caregivers) Perspectives on Young People's Experiences of Sexuality Education They Receive in Schools/Colleges?

## VI.3.2.1. Substandard School-based Sexuality Education

In accordance with previous literature (e.g., Sato et al., 2021) and the findings from Study 2 (survey), the narratives of many young people, educators and caregivers in this study clearly demonstrated that the school-based sexuality education is very basic, covering mostly the biological aspects of sexuality including puberty and contraception. As highlighted in Chapter II, this biological approach to sexuality education stems from the long-term attitude in English system that young people should be protected to remain 'innocent'. Therefore, the public health approaches to sexuality focus firmly on the

adverse health outcomes, as opposed to promoting positive factors in sexuality (e.g., sexual pleasure).

Another vital factor that was consistently reported across all groups of young people in this study was the lack of education related to romantic relationships. Although educators did not specifically mention the lack of topics related to romantic relationships in their schools/colleges, they highlighted the importance of teaching them to ND young people including basic information related to romantic relationships (e.g., what a romantic relationship means and how to gain it). Interestingly, caregivers in this study did not have much knowledge of what topics their children learnt during their school-based sexuality education, due to no collaboration between them and schools on the topic. Consequently, they highlighted the importance of such collaboration. However, as reported by all caregivers and some educators in this study, parent-school collaboration is essential as it may help promote effective sexuality education for young people including the ND population (Ballan & Freyer, 2017). Sexuality education ought to be created with the collaboration of caregivers due to the sensitivity of the topics (Pugliese et al., 2020). Despite its importance, this collaboration does not necessarily occur in schools (Davis et al., 2021).

The outcome of a lack of focus on romantic relationships in sexuality education for young people converges with previous literature reported in Chapter II. Notably, young people in this current study described their experiences prior to the reform of sexuality education in England (DfE, 2019), where teaching topics related to romantic relationships was not compulsory (bigtalkeducation, 2022). The current curriculum of sexuality education, however, includes aspects related to romantic relationships (DfE, 2019; Long, 2020). As discussed in detail in Chapter II, the interest and exploration of romantic relationships are common during adolescence, as romantic relationships constitute a key developmental task in young people.

Furthermore, consistent with the outcomes of previous studies across various countries including the UK (Astle et al., 2021; Pound et al., 2016), many participants across all groups in this study also highlighted the lack of inclusion of teaching related to nonheterosexuality during sexuality education. As reported in Chapter II, the reformed sexuality education is already compulsory in primary schools, however, only the

relationship part of it, the sex part is not compulsory (DfE, 2019; Long, 2020). Mandatory sexuality education starts in secondary schools and the curriculum includes information on LGBTQ+ sexualities (DfE, 2019; Long, 2020). Nash and Browne (2021) argue that despite the implementation of inclusive school curricula in England, schools often lack neutral spaces for non-heteronormative sexualities, which means that students who identify as LGBTQ+ experience discrimination within the school environments from peers, teaching staff, and the curriculum and proactive protection. Bower-Brown et al. (2021) also claim that the British educational system is fundamentally inadequate for LGBTQ+ identities.

#### VI.3.2.2. Topics Specific to Neurodivergent Students

Some educators in this study focused on providing information on specific topics that should be taught to ND students but not which are not needed for NT students, which indicates the necessity of tailoring sexuality education for the ND population. They emphasised the importance of teaching aspects related to appropriate versus inappropriate sexual behaviours to autistic students. This aspect was also highlighted by some autistic young people in this study. The literature reviewed in Chapter II of this thesis additionally indicates that some autistic people may find it challenging to distinguish between appropriate and inappropriate sexual behaviours, which sometimes may lead to negative, legal consequences (e.g., see Ray et al., 2004). The lack of adequate sexuality education may in certain cases, increase the context of vulnerability to exhibiting inappropriate sexual behaviours by some autistic young people (Girardi et al., 2020; MacKenzie, 2018). The National Autistic Society (NAS, 2022) also recommends teaching autistic young people about appropriate versus inappropriate sexual behaviours.

In accordance with the narratives provided by some autistic young people and caregivers in this study, some educators also mentioned the necessity of providing guidance and advice to autistic students on where and how to access support in terms of sexuality and romantic relationships. The current sexuality education curriculum also indicates that all young people should be taught this information during sexuality education (DfE, 2019). Additionally, some educators and caregivers in this study

commented that some topics might be distressful for some autistic young people (e.g., reproduction). The feelings of distress in some autistic people caused by some sexuality topics and the use of graphics materials (pictures and videos) in teaching might be related to their sensory processes since the literature reports that some autistic people might indeed be sensitive to some physical senses including smell, sight, sound, and touch (Gray et al., 2021). This indicates the importance of considering the aspect of sensory sensitivities in the designs of sexuality education for autistic young people.

Teaching related to rejection in the context of romantic relationships was highlighted by some educators as vital specifically for students with ADHD. Interestingly, this aspect was also stressed by some young people with ADHD in this study and reported as a substantial issue encountered in romantic relationships by some individuals with ADHD in previous research (Wallin et al., 2022). Indeed, rejection is a sensitive topic for young people with ADHD since already children and adolescents with ADHD experience high levels of rejection (Beaton et al., 2022; Gardner & Gerdes, 2015). Moreover, individuals with ADHD tend to display a more sensitive response to rejection than their peers without ADHD (Beaton et al., 2022).

#### VI.3.2.3. Existing Approaches to Teaching Sexuality Education

Educators in this study mentioned various means that they utilise in teaching sexuality, for example, practical resources. Applying practical resources in education has been recognised as a successful method of increasing students' skills and confidence in learning (Hubbard et al., 2017). Utilising technology was another recommended resource by some educators and young people in this study. As reported in Chapter II, technology may indeed be a useful source of sexuality education for young people including the ND groups. Notably, although some young people reported that technology was utilised during sexuality education in the form of short clips/videos, some of them suggested providing discussion-based and interactive (via the use of technology) sexuality education. Similar recommendations of utilising technology were reported in previous literature (see Chapter II).

Due to inadequate school-based sexuality education provided to young people (as reported in this study), many search for alternative sources of gaining their knowledge. The internet was reported as an important means of learning about sex and relationships by some participants across all three groups in this study. Although the internet might indeed be a good source of sexuality information for young people (Holstrom et al., 2015), it may also lead to the problematic use of pornography (Goldstein et al., 2020). Indeed, young people in this study also highlighted the potential danger of utilising the internet to learn about sexuality as it can lead to watching pornography. As also pointed out by some young people in this study, pornography is a serious problem amongst young people and hence it is important to provide teaching related to this topic during sexuality education (pornography as a way of sexuality education will be discussed in more detail in a separate section).

Furthermore, in this study, not many educators reported applying discussions when teaching sexuality to young people. Similarly, many young people reported a lack of discussions related to sexuality during their lessons in their schools/colleges. This outcome is additionally supported by previous studies (e.g., Astle et al., 2021). Consequently, young people called for enabling them greater opportunities for discussion-based sexuality education. Some teachers, however, might find such open pedagogy as discussions more challenging than simply providing students with the lesson's content (Bragg et al., 2021 [UK]), especially as highlighted in this study, many educators lack adequate training and hence do not feel fully competent to teach sexuality to young people (this aspect will be further discussed in a separate section).

## VI.3.2.4. Teaching Approaches Specific to Neurodivergent Students

Educators in this study also focused on discussing teaching approaches specific to ND students, which again indicates the importance of tailored sexuality education for this group of young people. Role-playing may be a beneficial interactive way of teaching social stories to autistic students as reported by some educators in this study. The NAS (2022) also recommends social stories as useful resources in teaching sexuality to autistic young

people. Social stories were additionally applied to sexuality education interventions for autistic young people in previous research and displayed positive results (as discussed in Chapter II). Rothman et al. (2020) highlighted the potential benefits of utilising technology-based resources (e.g., video vignettes) portraying real-life situations, which subsequently could be followed by discussions related to the video; similar methods were recommended by some educators and caregivers in this study as successful means of sexuality education for autistic young people. Some educators in this study also used some pre-existing programmes or curricula (e.g., "Sex and Relationships" [two books]), which they found to be beneficial. Pre-existing programmes might indeed be useful in providing sexuality teaching to autistic students (e.g., see Crehan et al., 2023; Pask et al., 2016). Interestingly, some autistic young people in this study reported that only very basic resources (e.g., videos and pictures) were utilised by their educators in their sexuality teaching. However, technology-based sexuality education including a variety of resources (e.g., videos, video games, websites, and mobile device applications) specific to autistic young people is recommended as beneficial (Mackin et al., 2016).

Notably, some educators and caregivers in this study highlighted that some videos might not be suitable for some autistic young people as they may cause distress. Modelling via watching videos might indeed not always be suitable for some autistic students since some images might be overstimulating and take the students' attention away, especially when a video includes more complicated social cues or/and long consistent social activities (Lee et al., 2018). However, resources that are well-adapted to autistic people might be beneficial as reported by some educators in this study. In this study, some educators emphasised the need to provide sexuality education that would be tailored specifically to the autistic young population as, at present, there appear to be no programmes that would be designed for this group of young people. Previous literature also highlighted the need for such programmes (Bloor et al., 2022; MacKenzie, 2018; Stanojević et al., 2021). Notably, as highlighted in Chapter II, in the UK the current curriculum of sexuality education stresses the importance of equality and respect in teaching sexuality to young people (DfE, 2019). That means that the content of teaching should be tailored to the specific needs of students both in special and mainstream schools.

# VI.3.2.5. Educators' Views on Neurodivergent Students' Attitudes to Discussing Sexuality and Relationships with Teachers

As pointed out by some educators in this study, many autistic students seek information from them on topics related to sexuality and romantic relationship; and, as additionally reported by one educator who is autistic, autistic students might prefer to discuss their issues with him since they identify with him better than with non-autistic teachers (see Dibb et al., 2022). Interestingly, some educators in this study reported that students with ADHD did not seek romantic relationship advice from them. The current literature is very limited in terms of knowledge about romantic relationships among young people with ADHD (Wymbs et al., 2021) as reported in Chapter III of this thesis. However, existing research (e.g., Halkett & Hinshaw, 2021; Rokeach & Wiener, 2018; VanderDrift et al., 2019) highlights that young people with ADHD experience greater challenges within their romantic relationships than their NT peers. The inadequate understanding of sexual concepts and issues related to intimacy, and feeling ashamed of asking questions regarding sexuality, may impact the challenges within romantic relationships encountered by some young people with ADHD (Blankenship & Laaser, 2004). Individuals with ADHD have been found to show a tendency to overestimate their social competence (Crisci et al., 2022; Owens et al., 2007). Given this, it may be speculated that young people with ADHD might not ask questions regarding their romantic relationships; however, they may still struggle to navigate them. Young people with ADHD may not feel encouraged to ask questions since, as reported in Study 3, sexuality education does not generally provide young people with spaces to ask questions. This lack of asking questions may consequently convey a false impression that young people with ADHD may not require support in their romantic relationships. Study 3 with young people has provided findings on the topic indicating that some young people with ADHD indeed encounter difficulties within their romantic relationships including experiencing abusive relationships. Individuals with ADHD seem "literally and figuratively, to be hurting in their romantic lives" (Wymbs et al., 2021, p. 13). This may indicate that they may require support in this matter.

#### VI.3.2.6. The Role of Professionals in Sexuality Education

Due to the existing inadequate support for young people in terms of their sexuality and romantic relationships, many young people and some caregivers in this study voiced the importance of providing easy access to professional services on sexuality and romantic relationships for young people. Professional support for young people regarding sexuality (from health providers and sexuality educators) is available in the UK, for example, through online resources (e.g., Brook Organisation). However, from the narratives of some young people in this study, it was apparent that they lacked awareness about it. Increasing awareness of the existing support related to aspects specific to romantic relationships for young people might, therefore, be essential. Notably, the current sexuality education curriculum in England (DfE, 2019) states that teaching related to where and how young people may access further advice on sexuality and relationships should be included during sexuality education.

Many young people in this study reported health professionals (mental health nurses, doctors) as the most reliable source of information regarding sex and sexual health and wish to discuss their sexuality concerns with them. Indeed, professionals have been found as a very beneficial source of information and support in terms of sexuality education for young people in previous literature (see Chapter II for details). As further discussed in Chapter II, professionals might also be useful in offering parents appropriate knowledge to manage their sexuality communication with their children. The collaborative efforts among young people, their parents, schools, and professionals in terms of sexuality education might hence be crucial in order to offer the most effective sexuality education to young people (UNESCO, 2018). Educators in this study also suggested collaborative efforts in terms of sexuality education among schools, parents, and professionals (this factor will be discussed in more detail in a separate section). Sexual health and mental health should be approached holistically as they are interwoven phenomena (Schnitzler et al., 2023).

# VI.3.2.7. Pornography as an Alternative Avenue of Gaining Sexuality Knowledge

Due to the perceived substandard sexuality education young people receive in their schools/colleges, as reported by many participants across the three groups in this study, some young people search for alternative means of sexuality education and pornography was highlighted as a very powerful alternative way of gaining sexuality knowledge for young people. In recent times, young people have very easy, often free access to uncensored images of different sexual acts including violent and risky forms of sex via the internet (Bleakley et al., 2011; Price et al., 2016, Rahman, 2022). The prevalence of young people accessing pornography is quite high in Britain and viewing pornography and sexually explicit material may affect young people's sexual attitudes and behaviours (as reported in Chapter II). School-based sexuality education should therefore offer essential support to young people regarding this topic (Massey et al., 2020 [UK]). As additionally highlighted in Chapters II and III of this thesis, watching pornography might be especially problematic for some ND individuals, as they may (often unintentionally) commit sexual offences, such as IIOC (Allely & Dublin, 2018; Mahoney, 2009). Adequate sexuality education for this group of people, which would comprise essential information regarding sexual conduct as well as aspects related to IIOC might therefore be critical (Mahoney, 2009). Notably, in this study, in the group with ADHD, males, not females, reported that pornography is a significant problem among young people. Indeed, there is an association between ADHD symptoms and problematic pornography use among men, as opposed to women (Bőthe et al., 2019).

Interestingly, one caregiver in this study reported having no concerns about the possibility that their child might access pornography while researching topics related to sexuality on the internet. Indeed, previous research highlighted that some parents, due to their lack of awareness about pornography, might not be concerned about the possibility of their child accessing it (Davis et al., 2021; Rahman et al., 2022). Therefore, parents should be educated about the potential danger of accessing pornographic material by young people (Davis et al., 2021; Rahman et al., 2022). This knowledge may help them provide adequate support for their children in this matter.

VI.3.3. Research Question 2: What are Participants' (Young People, Educational Professionals, and Caregivers) Suggestions for Improving Sexuality Education for Young People?

#### VI.3.3.1. Sexuality Education Needs Improving

All three groups of participants in this study clearly indicated that the current system of sexuality education for young people requires revision and improvement. One of the proposed factors for improvement by all three groups was that sexuality education should start early. The reasons provided by some participants were that, for example, young people are aware of sex at a very early age and hence these aspects should also be discussed at an early age, as well as that earlier sexuality education would decrease the embarrassment that many young people experience when exposed to it in their teenage years. As reported in Chapter II, the current sexuality education in England begins already in primary schools and it incorporates only the aspects related to relationships. The DfE (2019), however, stresses that all schools should ensure that sexuality education teaching is age appropriate and safe in all provided content and approach.

A safe environment, which was another factor mentioned by some educators in this study, is essential for effective sexuality education, where young people feel respected, comfortable, and protected from harassment, and where the school ethos reflects the values of the subject (UNESCO, 2018). Ensuring a conducive environment for sexuality education was further stressed by some educators; making the lessons interesting was especially important in the case of young people with ADHD. Interestingly, the value of providing a conducive environment during sexuality lessons was not mentioned in the narratives of young people with ADHD in this study. Nevertheless, ensuring that the teaching is delivered in an engaging manner might positively contribute to the learning outcomes for young people with ADHD (Lavoie, 2022).

Participants (young people, educators, and caregivers) also listed topics (LGBTQ+ sexuality for ND and NT students; sexual pleasure, appropriate versus inappropriate

behaviours and rejection for ND students, signposting young people about where to find information and support related to sex and relationships) that were not taught during school-based sexuality education; however, they deemed them vital. Teaching related to LGBTQ+ sexuality is crucial, especially when working with autistic young people since autistic individuals tend to display a greater variety in sexual orientation than their nonautistic peers (Bush, 2021; George & Stokes, 2018; May et al., 2017). The DfE (2019) stresses the importance of respect for equality and diversity in the approach to teaching sexuality education. A lack of (specific) topics related to romantic relationships in current sexuality education (e.g., to know how to have a healthy relationship and how to go about it, how to recognise when people are attracted to you or how to let people know that you are attracted to them) was stressed by some educators and caregivers and many young people in this study, as well as in previous literature (Pound et al., 2016; Chapter II). As noted earlier, however, romantic relationships are included in the current curriculum of sexuality education and thus they should be taught during the lessons (DfE, 2019). Importantly, the aspect of sexual pleasure, which was highlighted by some educators, caregivers, and young people in this study as vital, is currently absent from the curriculum (DfE, 2019). Nonetheless, it is an essential component of sexuality (Mitchell et al., 2021; WHO, 2015), and therefore it should be covered during sexuality education. Notably, the issue of offering young people appropriate signposting of how to access and navigate information related to sexuality was emphasised by all three groups of participants in this study (some caregivers of autistic children, some young people, and some educators [with respect to autistic young people]). The emphasis of it on the autistic population may again imply the necessity of tailored sexuality education for this group. Importantly, as previously noted, the sexuality education curriculum (DfE, 2019) incorporates the aspect of providing guidance on access and navigation of sexuality information for young people during the lessons.

# VI.3.3.2. Specific Considerations of The Improvement of Sexuality Education for Autistic Young People

From the interviews, it was clear that some educators believed that sexuality education specific to autistic young people needs to be enhanced as they particularly focused on offering suggestions for the improvements directed to this group of young people. The existing literature also stresses the significance of establishing specific sexuality education for the autistic population since, at present, there appears to be a lack (Bloor et al., 2022; MacKenzie, 2018; Stanojević et al., 2021). Adequate sexuality education for autistic individuals could combine topics related to sexual socialisation and sexual behaviours as reported by some educators in this study, as well as earlier literature (MacKenzie, 2018; Stanojević et al., 2021). This, in turn, might help some autistic people acquire skills important to navigating their romantic relationships (Beddows & Brooks, 2016).

Earlier literature (e.g., Sullivan et al., 2008; Gougeon et al., 2010), which demonstrated perceptions of others on sexuality in autistic people, portrayed autistic individuals as mostly asexual and disinterested in forming romantic relationships, as well as prone to exhibiting inappropriate sexual behaviours including deviant sexual behaviours such as fetishism, hence requiring 'protection' (as discussed in Chapter II). This portrayal might have inevitably influenced the lack of a normative approach toward sexuality education for autistic people. However, recent research (e.g., Hartmann et al., 2019; Joyal et al., 2021; more details are included in Chapter III) including Study 3 of this project, showed autistic individuals' reports on their own sexuality, which highlighted that many autistic young people, similarly to their NT peers, are interested in sexual behaviours, and romantic relationships. This indicates the importance of a normalised approach to sexuality education for autistic individuals. As accentuated by MacKenzie (2018), schools urgently should provide sexuality education, which would acknowledge autistic individuals as sexual beings. The existing lack of openness about sexuality toward the autistic young populace may additionally create problems for some young people as they may feel ashamed to disclose their sexuality as reported by some educators in this study. The lack of acceptance of the autistic population as sexual beings and consequently being

marginalised by society, due to prejudicial stereotyping and ignorance, may lead to low self-esteem and deterioration of well-being in some autistic people (Bloor et al., 2022; MacKenzie, 2018).

Educators in this study also provided specific suggestions for the improvement of the learning environment for autistic students. The suggestion of giving time to process the information may be vital in terms of adjusting sexuality education for autistic individuals since, as explained in Chapter I, autistic individuals demonstrate differences in social processing and interaction (APA, 2013). Repetitive behaviours are additional characteristic features of autism (APA, 2013), which may explain the importance of consistency in teaching for this group of young people, which was also highlighted by some educators. Further essential topics for autistic students reported by some educators were gender diversity and sensory issues. Indeed, Sala et al. (2020) reported an increased tendency to diversity and dysphoria in gender identity in the autistic population, thus topics related to gender might be essential. As highlighted in Chapter I, sensory sensitivities are highly co-occurred in autistic individuals (e.g., Ben-Sasson et al., 2019) and constitute one of the features associated with autism (APA, 2013). Sensory difficulties might have a detrimental impact on some autistic individuals' romantic relationships (Brilhante et al., 2021; Cheak-Zamora et al., 2019; Dewinter et al., 2017b). Therefore, they should be included in sexuality education for autistic individuals (Gray et al., 2021).

VI.3.4. Research Question 3: What are Caregivers' and Educators' Suggestions about Receiving Support to Feel More Equipped at Discussing Sexuality and Romantic Relationships with Their Children/Students?

## VI.3.4.1. Ill-equipped Staff to Teach Sexuality Education

The current literature highlights that teachers tend not to receive appropriate training to teach sexuality education across various countries including the UK (O'Brien et al., 2021; Plaza-del-Pino et al., 2021; York et al., 2021); similar voices were reported by many educators in this study. Although teachers often believe sexuality education is an important subject that should be taught to young people, generally, in schools in the UK, sexuality education is regarded as less essential than other subjects (York et al., 2021). Teachers' preparedness to deliver sexuality education in schools, however, is crucial (O'Brien et al., 2021; UNESCO, 2018).

Educators' perspectives in this study were consistent with a review by Walker et al. (2021) (discussed in more detail in Chapter II), which concluded that barriers to effective sexuality education include a lack of training and subsequent teachers' lack of confidence in teaching the subject. Again, similar to Walker et al.'s (2021) recommendations, some educators' voices in this study highlighted the need for providing sexuality education training to all teaching staff in schools including teaching assistants, as well as promoting the importance of sexuality education for young people. As reported in Chapter II, there are existing barriers to sexuality education training for teachers in England. Teachers, however, are provided with the sexuality education training guide, which is available on the UK government website (GOV.UK, 2022) (details regarding it are included in Chapter II).

Notably, it may be evident that some teaching personnel may be somewhat incompetent in teaching sexuality since in this study some young people highlighted that problem. Similar opinions were reported by young people in the previous literature investigating the topic across various countries including the UK (Astle et al., 2021). Interestingly, in this study, some educators reported that the teaching staff are not fully equipped to teach sexuality to ND students. This outcome is consistent with a previous study conducted in the UK (Bloor et al., 2022). Some teachers' choose the topics that they teach to autistic students based on their perceptions of what topics should or should not be taught to this group of young people (Curtiss & Ebata, 2016). Teachers of autistic students, additionally, may perceive the students' need for sexual education differently depending on the student's level of functioning (see Kalyva, 2010). Therefore, consistent with the voices of some educators in this study, there is a need for specialist training delivered to educators who provide sexuality education to autistic young people (Bloor et al., 2022; Curtiss & Ebata, 2016). A whole-school approach might be promising in terms of promoting sexual health in young people in English schools (Ponsford et al., 2021).

However, there appears to be a lack of assessment of such an approach specific to teaching autistic young people.

Furthermore, some educators in this study called for training specific to LGBTQ+ sexuality. Sondag et al. (2022) reported that due to a lack of training for teachers, less than 30% of sexuality education deals with LGBTQ+ sexuality in schools. Other barriers to providing comprehensive sexuality education related to LGBTQ+ sexuality that teachers mentioned were a lack of experience with LGBTQ+ sexuality content, lack of resources, community/parental disapproval, and lack of school policy (Sondag et al., 2022). This latter study was conducted in the US, hence some aspects might not be relevant to the sexuality context in England (i.e., school policy, since the DfE [2019] provides guidance on including teaching related to LGBTQ+ sexuality in sexuality education). Nonetheless, as pointed out by many young people and some educators in this study, as well as argued by Bower-Brown et al. (2021), despite the comprehensive sexuality curriculum that involves LGBTQ+ sexualities, the English educational system does fail LGBTQ+ individuals.

Additionally, involving individuals belonging to specific communities (autistic; LGBTQ+) in providing training to educators related to sexuality education was recommended in this study by some educators. Consistent with this, the autistic community's partaking in everything that is related to autistic people's lives has been recommended by Autistica (2022). Learning from those with experience can help bring about the required changes in autistic people's lives (Autistica, 2022).

## VI.3.4.2. Collaborative Efforts

Many educators, as well as caregivers in this study, emphasised the importance of school-parent collaboration to increase the effectiveness of sexuality education and promote the reinforcement of positive techniques in teaching (Ballan & Freyer, 2017). Due to the sensitivity of the topics in sexuality education, the design of the lessons should consider cultural aspects, values, and beliefs of the family, and hence it is recommended that the lessons are constructed with the cooperation of students' caregivers (Pugliese et

al., 2020). Nonetheless, this collaboration does not necessarily occur in schools (Davis et al., 2021), which was also found in this study.

The (false) assumption that autistic individuals are mostly asexual and may therefore need 'protection' (MacKenzie, 2018) and hence do not require sexuality education was discussed earlier in this and previous chapters. Some parents of autistic young people believe that their children, due to their social limitations, would not develop meaningful romantic relationships (Holmes et al., 2020a; Mackin et al., 2016). Some parents underestimate their autistic children's interest in romantic relationships (Hartmann et al., 2019), and some feel unprepared and unsupported to discuss sexuality with their autistic children (Holmes et al, 2016b); the latter aspect was also highlighted by some caregivers in this study. Sexuality is additionally a relatively taboo topic in our society, which might add to the feeling of embarrassment some parents may experience when trying to communicate on this subject with their children (Mullis et al., 2021). All these factors might consequently contribute to the parental hesitancy to support sexuality education for their autistic children provided in their schools/colleges. Additionally, the literature (Fernandes et al., 2017; Holmes et al, 2016b; Kotzé et al., 2017) demonstrates that some parents are concerned about their autistic children's sexuality since their children displayed inappropriate sexual behaviours (e.g., touched someone or tried to have sexual intercourse with someone without their consent, deviant masturbation, paedophilia, fetishism). Such experiences in turn may influence some parents' perceptions in terms of their children's sexuality education (they may prefer to avoid the topic). Ballan and Freyer (2017) indicated that some parents might believe the school provides their children with adequate sexuality education and hence they may not feel the need to discuss it with their children at home. These misleading views might be rectified with adequate communication on the topic between schools and parents.

As a consequence of inadequate parent-child discussions related to sexuality that many young people and caregivers in this study reported (this aspect will be discussed in more detail in the following subsection), caregivers voiced the need for support (e.g., that could be based in the child's school) that would enable them to communicate on sexuality-related topics with their children more effectively. Parents are indeed regarded as the main sexuality educators for their children (André et al., 2020; Robinson et al.,

2017). Hence, they should be offered support in the form of training that would help them improve their efficacy to deliver sexuality education to their children (André et al., 2020; Mullis et al., 2021). Clinicians may also be essential in encouraging parents to discuss topics that parents may find irrelevant to their child, difficult or uncomfortable, nevertheless, they might be important and should be covered with young people (Pugliese et al., 2020).

# VI.3.5. Research Question 4: What are Young People's and Caregivers' Experiences of Parent-Child Sexuality-Related Discussions?

#### VI.3.5.1. Limited Parent-Child Sex and Relationship-Related Discussions

Across all groups of young people in this study, many participants reported having basic or no sexuality-related discussions with their parents, which indicates that young people do not receive adequate information from their parents that would enable them to develop healthier and more positive experiences of sexuality and romantic relationships. This finding aligns with previous research across different groups of young people (NT and ND) conducted in various countries such as the US, Spain, and Australia (e.g., Flores et al, 2019; Holmes et al., 2019; Kenny et al., 2021; Lameiras-Fernández et al., 2021; Mullis et al., 2021; Robinson et al., 2017).

Many young people in this study additionally reported lack of discussions related to LGBTQ+ sexuality with their parents. Some also felt ashamed to reveal their nonheterosexual orientation to their parents. Flores et al. (2019) indicated that parent-child sexuality communication is mostly of a heteronormative nature. Young people who identify as LGBTQ+ feel that non-heteronormative sexuality is a taboo topic in their homes (Flores et al., 2019). Notably, as reported in Chapter II, in the UK the statutory requirement for inclusive sexuality education is generating some voices of dissent from some groups of parents; interestingly, in accordance with this, in this study only one caregiver whose child was LGBTQ+ mentioned the importance of incorporating LGBTQ+ sexuality education in teaching. Some parents frame their arguments and opposition to

LGBTQ+ sexuality education as having a right to decide what education their children should receive in terms of sexuality. In England, parents are informed about the content of the teaching, and they have the right to request that their child will be withdrawn from some or all sexuality education (DfE, 2019).

#### VI.3.5.2. A willingness to Discuss Sexuality with Children May not Suffice

As indicated by some young people and caregivers in this study, some caregivers might lack the necessary skills and knowledge to deliver sexuality education to their children, despite their willingness to do so. This may consequently lead to very limited parent-child sexuality-related discussions as highlighted in this study and in previous literature (Ashcraft et al., 2017; Holmes et al., 2019; Kenny et al., 2021; Rajhvajn Bulat et al., 2016; further details are reported in Chapter II). Similar to previous literature (Mullis et al., 2021), the existing barriers to parent-child communication on sexuality, as reported by participants in this study, are embarrassment, awkwardness, which arguably reflect the topic of sex as a taboo. For most caregivers and their children, the prospect of discussing sexuality indeed generates feelings of uneasiness and consequently the avoidance of such discussions (Ashcraft et al., 2017). In this study, some parents suggested introducing humour and not pressuring children into the discussions in order to improve sexuality communication with them. Humour indeed might be used as an engaging tool to support teaching sexuality (Gordon & Gere, 2016; Taylor et al., 2022). However, inappropriately used humour may harm the parental status (Bitterly et al., 2017), and subsequently cause opposite outcomes. For example, it may further deepen the already existing embarrassment about sexuality and deteriorate the parent-child communication on this topic.

As reported in Chapter II, some parents may delay the sexuality related discussions with their children for fear that they may unnecessarily put some sex-related ideas into their children's heads (Ashcraft et al., 2017). Some parents consequently prefer to wait with such discussions until their child is "ready" (Ashcraft et al., 2017; Kenny et al., 2021). Although sex is an uncomfortable subject to discuss in a meaningful way for many people

(Sheldon, 2016), family is a crucial source of emotional and instrumental care for young people on their journeys of learning about sexuality and romantic relationships (Jamison & Sanner, 2021). In the early years of development, children learn patterns of behaviours from their parents, which they will imitate in their future romantic relationship interactions (Mumford et al., 2023). Through discussions with their children about romantic relationship experiences, parents may provide support, as well as helping their children gain perspectives on their current romantic relationship experiences (Jamison & Lo, 2021). Therefore, parents play a crucial role in shaping their children's attitudes toward sexuality and romantic relationships (Jamison & Lo, 2021; Mumford et al., 2023).

Notably, in this study, consistent with previous findings across NT and ND young people (e.g., Flores et al., 2019; Holmes et al., 2016a, 2019; Kenny et al., 2021; Teti et al., 2019), many young people indicated that mothers, as opposed to fathers, were their main sexuality educators at home. This may imply that fathers may require even greater support/training than mothers to feel well-equipped to conduct sexuality-related discussions with their children.

VI.3.6. Research Question 5: What are Participants' (Young People, Educational Professionals, and Caregivers) Perspectives of Young People's Romantic Relationship Experiences?

#### VI.3.6.1. Young People and Romance - A Complicated World to Navigate

In this study, young people in the NT group and the group with ADHD reported having some romantic relationship experiences. In the autistic group and the group with a dual diagnosis, participants tended to have one or no romantic relationship experiences. These outcomes align with previous literature (Halkett & Hinshaw, 2021; Joyal et al., 2021; May et al., 2017; Toplu-Demirtaş et al., 2022).

In line with previous research discussed in Chapter II, the casual attitude to romance appeared to be a common trend amongst young people in this study; notably, this preference was found in the group of young people with ADHD. Previous research

(Chen et al., 2018; Halkett & Hinshaw, 2021; Rokeach & Wiener, 2018) indicated that more symptoms of ADHD were related to greater engagement in more risky sexual behaviours (RSBs) including more unprotected sexual activities and more casual sexual activities. These types of behaviours have consequently been associated with the development of STDs or becoming unintentionally pregnant more often than young people without ADHD (Rokeach & Wiener, 2018). Notably, Wallin et al. (2022) indicated that some young females with ADHD enter many casual romantic relationships due to feeling different (due to their condition), unaccepted and judged by others. As a result of having ADHD, some females demonstrate low self-esteem and self-image, and such feelings make them less comfortable with intimate relationships. This all, in turn, affects their romantic relationship experiences (Wallin et al., 2022). Similar findings were reported by some ND young people in this study.

Young people's romantic relationship interactions might be characterised by challenging dynamics including a problematic communication style, as highlighted by many young people in this study and previous research including ND individuals (Brilhante et al., 2021; Dewinter et al., 2016, 2015). Many young people in this study described their romantic relationships as a complicated world to navigate. Given that young people's romantic relationship dynamics are learnt and conditioned by their environment, in the early developmental phase they may acquire constructive interactive styles of communication, which will result in a greater capacity for the expression of positive feelings and the ability to peacefully resolve conflicts within their future relationship (Garthe et al., 2019; Mumford et al., 2023). The lack of education related to romantic relationships that many young people in this study reported could contribute to the challenges they experienced.

# VI.3.6.2. Neurodiversity-driven Challenges in Romantic Relationships

In this study, ND groups of young people reported experiencing specific challenges in their pursuit of romantic relationships that were not mentioned by their peers in the NT group. Some of those challenges might be due to the inadequate sexuality education they

received in their schools/colleges and homes since one of the greatest barriers to creating romantic relationships was a lack of (practical) understanding of how to develop a relationship, as reported by some autistic young people and young people with ASD cooccurring with ADHD, as well as some educators in relation to their autistic students. Similar problems were reported by some autistic young people in previous research (Cheak-Zamora et al., 2019; Teti et al., 2019). The literature demonstrates that autistic young people tend to exhibit lower understanding regarding romantic relationships including aspects related to sexual awareness, sexual monitoring, sexual assertiveness, and sex appeal awareness when compared to their non-autistic peers (Hannah & Stagg, 2016; Joyal et al., 2021). As reported by some educators in this study and previously discussed in Chapter III of this thesis, some autistic individuals might display theoretical knowledge regarding some aspects of sexuality and relationships and understand the tacit rules of social interactions; however, they may struggle to apply this knowledge in practice (Rothman et al., 2020). Therefore, providing autistic young people with theoretical knowledge followed by practical examples (e.g., portrayed in a video), and consequent discussions about it, could be beneficial.

Notably, previous research demonstrated that many autistic young people were single (80%) (Cheak-Zamora, 2019), and many of them (60%) (Cheak-Zamora, 2019; Teti et al., 2019) longed for romantic relationships. The desire for a romantic relationship was also reported in this study by some single autistic young people and young people with a dual diagnosis. Another highlighted barrier, that may be the result of inadequate sexuality education, was a lack of understanding of appropriate versus inappropriate sexual behaviours in the context of romantic relationships (e.g., stalking their partner), which affected the outcome of relationships of some autistic young people in this study. This aspect was additionally greatly emphasised as a deterrent to romantic relationships for some autistic young people by some educators. The literature demonstrates that some autistic people may exhibit inappropriate sexual behaviours (e.g., touching another person without their consent [Holmes et al., 2020a]), however, it is important to highlight that such behaviours are not typical for the autistic population (Kolta & Rossi, 2018). As explained in Chapter I of this thesis, in some autistic people the impaired ability to understand social cues and accurately interpret others' negative responses to their sexual

advances may provide the context of vulnerability to displaying behaviour that is sexually offensive (e.g., Murrie et al., 2002) (see Chapter I for more details including an example of a behaviour).

A further factor that demonstrated that some autistic young people may lack a practical understanding related to navigating romantic relationships was an inability to deal with a break-up of the relationship, which created a major challenge for some autistic young people as highlighted by their educators. As reported in Chapter I, one of the characteristics of ASD is adherence to routine (APA, 2013); ending a romantic relationship may indicate (a sudden) change in the person's life, which consequently may create anxiety for an autistic young person. This inability to deal with a change may have a tragic consequence (e.g., suicide) as reported by one educator in this study. A systematic review (Hedley & Uljarević, 2018) of suicide in the autistic population, which included 13 studies (across the studies 39% of participants were children or adolescents [up to 18 years] and 61% were older adolescents or adults [17- 65+ years]) demonstrated that suicide (suicidal thoughts, behaviours, and premature death) is a substantial problem that many autistic population was 66%, and attempts were reported in up to 35% of the participants.

Another critical aspect mentioned by some educators in this study was that some autistic young people may be vulnerable to exploitation when trying to navigate romantic relationships. In this specific example, the educator highlighted that an autistic young person did not recognise the real age of the person they were meeting online (they were much older than what they claimed to be). Indeed, an autistic individual may have difficulties with distinguishing the age of individuals, for example, actors in pornographic materials (Mesibov & Sreckovic, 2017). Additionally, the DfE (2019) acknowledges that some young people, due to the nature of their SEND, might be more susceptible to experiencing exploitation, and, therefore, this should be taken into consideration when designing sexuality education lessons. Furthermore, a parent of an autistic child in this study reported having concerns that their child might be naive in the way they perceive another person's behaviours, for example, interpreting behaviour as interest and affection toward that young person, whereas in reality, this might not be the

case. This finding is consistent with previous literature (Cridland et al., 2014) indicating that some autistic young people might misinterpret others' sexual intentions and be overtly trusting. Such behaviours might subsequently lead to negative romantic relationship experiences including abuse (Attwood 2007, 2009, 2013). Lower levels of sexuality awareness in some autistic young people might also ensue negative sexual experiences (Joyal et al., 2021; Pecora et al., 2019, 2020).

In terms of young people with ADHD, impulsivity was indicated as one of the greatest barriers to achieving a satisfying romantic relationship for a person with this condition, which may also originate from a lack of practical understanding of how to deal with conflicts in a romantic relationship. Impulsivity is one of the features associated with ADHD (APA, 2013). An impulsive young person may fail to stay in a relationship, and they may display impulsive/destructive responses to their partner's undesirable behaviours (VanderDrift et al., 2019). Young people with greater levels of impulsivity tend to display hostile conflict resolutions within their romantic relationships and consequently experience lower-quality romantic relationships (Bruner et al., 2015). VanderDrift et al. (2019) demonstrated that young individuals with ADHD may display less ability to engage in relationship maintenance (*"the cognitions and behaviours that involved individuals enact to remain in their romantic relationship"* [VanderDrift et al., 2019, p.986]) than their peers without ADHD, which consequently affects their romantic relationship outcomes.

Mental health issues might also contribute to challenges in romantic relationships in some ND young people. Across the autistic group and the group with ASD co-occurring with ADHD, the narratives highlighted that anxiety was a significant deterrent to achieving their romantic relationships. This finding was in accordance with previous literature (Brilhante et al., 2021; Cheak-Zamora, 2019). Indeed, anxiety is one of the most common co-occurring conditions in autistic individuals (Avanti et al., 2018; Lugnegård et al., 2011; Zaboski et al., 2018). The co-occurrence of these two conditions (ASD with anxiety) consequently impacts a person's social skills (Zaboski et al., 2018), which are essential in navigating romantic relationships (Kansky et al., 2019). Consistent with previous research investigating, for example, young females with ADHD (Wallin et al., 2022), many ND young people in this study also reported feeling insecure in romantic

situations, which consequently affected their experiences of relationships. There is a strong correlation between negative self-evaluation and considerable anxiety in social situations for autistic young people (Cooper et al., 2022). Individuals with ASD cooccurring with ADHD experience even greater feelings of anxiety when compared to their counterparts with a single condition (ASD or ADHD) (Rosello et al., 2022).

Interestingly, some autistic young people in this study emphasised the need for a romantic partner to understand their condition (autism) or they preferred their partner to also be autistic. This viewpoint was also highlighted by autistic participants in previous research investigating romantic relationships (Cheak-Zamora et al., 2019), as well as by a caregiver of an autistic son in this study (when she was discussing his romantic relationships). Further literature also highlights that autistic people report greater comfort and better communication with other autistic individuals, as opposed to someone outside their community (Dibb et al., 2022). This preference may be the result of all the challenges that autistic young people encounter while navigating the world of romance without appropriate support in the form of sexuality education, as well as inadequate awareness related to neurodiversity in society as reported by some educators and caregivers in this study. Consequently, some autistic young people may prefer to be surrounded by people who are similar and understand them. Creating an environment where autistic people feel more accepted and understood may hence be essential.

# VI.3.6.3. Experience of Abuse in The Neurodivergent Young Population is a Serious Matter

This lack of adequate sexuality education may lead to serious negative romantic relationship experiences including abuse as reported by some ND young people in this study. A systematic review (Hielscher et al., 2021) (the majority of studies included were carried out in the US) concluded that unhealthy behaviours within romantic relationships of young people are prevalent and are associated with various health and psychosocial problems. In the UK, intimate partner violence and abuse victimisation in young people

was reported by 32% of women and 24% of men and perpetration by 21% of women and 16% of men (Herbert et al., 2023). In this study, mostly young people with ADHD discussed experiencing abuse in their romantic relationships. Abuse in romantic relationships of young people with ADHD is not an uncommon issue. Previous studies (Guendelman et al., 2016; Snyder, 2015) demonstrated that young females with ADHD experience much higher levels of victimisation in their intimate relationships than their counterparts without the condition (30% - 6% in Guendelman et al. [2016] and 16.5% - 10.3% in Snyder [2015]). Additionally, autistic young people (especially females) have been found to be more vulnerable to experiencing sexual victimisation or abuse than their non-autistic peers (Hannah & Stagg, 2016 [UK]; Pecora et al., 2019, 2020). The vast majority of survivors of sexual abuse do not disclose their experiences until much later in their adulthood when they start to realise that past traumatic experiences influence their current lives (Al -Asadi, 2021). Notably, previous research (Bush, 2019; Joyal et al., 2021) demonstrated that autistic females presented lower levels of sexual awareness than their non-autistic counterparts; this may diminish their understanding of abuse in a romantic relationship and consequently lead to failure in reporting it (Ballan & Freyer, 2017; Hannah & Stagg, 2016; McDaniels & Fleming, 2016). This indicates the importance of teaching young people and especially ND ones about abuse (how to recognise and report it) in the context of romantic relationships.

# VI.3.6.4. Parents Are Aware of Their Children's Desire for Romantic Relationships

In this study, parents were aware of their children's desire for romantic relationships. Indeed, research across different groups of young people including NT young people (e.g., Alvarez et al., 2021; Toplu-Demirtaş et al., 2022), autistic young people (e.g., Brilhante et al., 2021; Cheak-Zamora et al., 2019), and young people with ADHD (e.g., Halkett & Hinshaw, 2021; Margherio et al., 2021) indicates that they show a strong interest in romantic relationships. Some caregivers in this study provided examples of the challenges their children experienced in their romantic relationships including abuse (NT

child). This outcome converges with some of the narratives provided by some ND young people in this study, which highlighted the gravity of the experience of abuse in the young population. Indeed, some young people may struggle with recognising abuse in their romantic relationships (Guendelman et al., 2016; Snyder, 2015) or, due to social pressure on a commitment to a romantic partner, they may remain in an abusive relationship (Muñoz-Rivas et al., 2022). Unhealthy behaviours are common in young people's romantic relationships, and they may lead to various psychosocial issues (e.g., physical violence, and sexual abuse) (Hielscher et al, 2021). Notably, as research (e.g., Guendelman et al., 2016; Joyal et al., 2021; Pecora et al., 2019) shows, unhealthy behaviours in romantic relationships are even more common in ND groups of young people than their NT peers. As previously discussed, some young people consequently stress the need for greater attention to topics related to abuse during sexuality education (Astle et al., 2021, Study 3 of this project). Abuse, however, is a difficult topic for some parents to discuss with their children (including ND children) and, therefore, many parents omit it (Kenny et al., 2021), as also reported by one caregiver of a child with ADHD in this study.

Young people tend to go through challenges within their romantic relationships, which consequently might cause emotional suffering. Neurodivergent groups of young people might experience even greater difficulties navigating their romantic relationships than their NT peers (Brown et al., 2017; Bush, 2019, 2021; Margherio et al., 2021; Rokeach & Wiener, 2018). Learning how to create romantic relationships and make them successful is an essential aspect of development in young adulthood (Singh & Thomas, 2022). Parent-child communication related to romantic relationships is therefore crucial in helping children to learn essential skills including, for example, conflict management in relationships (Paat & Markham, 2019). Young people additionally learn a lot about managing romantic relationships from observing their parents interacting with each other (Garthe et al., 2019). The challenges that young people experience in their romantic relationships stress the need of providing adequate teaching for them in this context. Nonetheless, as reported earlier, romantic relationships are essential aspects of teaching incorporated in sexuality education curriculum in England (DfE, 2019; Long, 2020) and hence they should be taught to young people. Despite parental awareness about their children's interest in pursuing romantic relationships, many caregivers

struggle with how to support their children with their romantic relationship endeavours (as discussed in detail in the earlier section of this Chapter).

# VI.4. Conclusion

This chapter offered a detailed discussion of the findings of this project and addressed the research questions in light of the current literature.

The following chapter (VII) will provide conclusive remarks including the unique contributions of this project, its limitations and future research directions. It will also highlight the practical recommendations and implementations related to sexuality education and romantic relationships for young people including the ND groups. Finally, this chapter will include a further reflective account provided by the researcher.

#### **Chapter VII. Conclusion**

#### VII.1. Chapter Overview

This chapter summarises the important contribution of this project. It additionally discusses the limitations of the empirical studies of this project, future research directions, and practical recommendations and implications. Finally, this chapter also includes the researcher's final reflective account of conducting this project.

#### VII.2. Contribution of This PhD Project

This research project aimed to investigate romantic relationship experiences and sexuality education in young people (autistic, with ADHD, with ASD co-occurring with ADHD, and NT) from the perspectives of three groups of participants: young people, educational professionals, and caregivers. One of the unique aspects of this project was that it was the first exploration of sexuality education in young people with ADHD, as well as the initial investigation into romantic relationship experiences and sexuality education in young people with ASD co-occurring with ADHD, and thus it yielded original findings in this area. Given that educational professionals' perspectives on the topic have hitherto been absent from the current literature on young people with ADHD and with ASD co-occurring with ADHD, and to the researcher's knowledge, there is very limited research on the topic in the autistic young population, this project also provided valuable insights into the topic from the educators' perspectives. Additionally, to the researcher's knowledge, this was also the first investigation into the topic of young people with ADHD from the caregivers' perspectives and thus the project yielded a preliminary understanding of this important area. Given that the current, albeit limited, research on the topic was mostly conducted via quantitative designs, this project provided a more detailed understanding of the topic by mainly exploring it via interviews (qualitative design).

The findings showed that many young people and educators felt that sexuality education in their schools/colleges was inadequate as it did not include some vital aspects of sexuality, for example, topics related to LGBTQ+ sexuality, as well as focusing on positive aspects of sexuality (e.g., pleasure), as opposed to portraying sexuality only in a negative manner (e.g., emphasis on contraception, STDs, etc.). Some ND young people also emphasised the importance of teaching related to abuse since some of them experienced abuse in their pursuit of romantic relationships due to inadequate knowledge of how to recognise it and seek support.

Notably, some ND young people in this research reported lacking knowledge pertaining to romantic relationships including basic aspects of what a romantic relationship means and how to get into one, despite their desire to have a romantic partner. Importantly, as additionally reported by many young people (ND and NT) in this project, topics related to romantic relationships were omitted in their education. However, young people need support both from educators, as well as their caregivers to learn to navigate romantic relationships and gain the skills required to create and maintain healthy romantic relationships. Some participants across three groups additionally emphasised the importance of tailoring the resources and teaching to ND young people's needs. Normalising sexuality education for autistic young people was specifically highlighted by some educators.

Many young people and caregivers voiced having limited parent-child sexualityrelated communication due to, for example, the parental lack of appropriate skills to conduct such discussions without making their children feel embarrassed. However, in this project, some young people believed that discussions around sexuality with their parents might be very useful for them in terms of giving them the right tools to help navigate the complicated world of intimacy and relationships.

As a result of inadequate sexuality education, some young people reported searching for alternative avenues of gaining their knowledge; pornography was highlighted as one of the most common sources of learning about sex and relationships for many young people. However, learning about sexuality from pornographic materials may be dangerous (e.g., it may lead to sexual coercion or, contact with the Criminal

Justice System [especially in some ND young people]). Therefore, offering young people teaching related to pornography was reported as essential.

Importantly, many educators additionally highlighted the necessity of providing adequate sexuality education training/support to all teaching staff to enhance their selfefficacy in teaching this sensitive subject. Parents also called for appropriate support for them in this context. Educators and caregivers also stressed the value of collaborative efforts (parents, educators, and professionals) in designing effective sexuality education for young people.

## VII.3. Limitations of The Empirical Studies of This Project

The findings of the quantitative part of this project (Study 2, the surveys), although unique and interesting, should be considered with several important limitations. The generalisability of the results is constrained by small sample sizes in each group of participants (young people, educational professionals, and caregivers). The small samples in groups with educators and caregivers prevented further investigations including significance (or lack thereof) into the differences of romantic relationship experiences and sexuality education, as well as into gender differences, among the four groups of young people. Notably, although in the group of young people, the exploration of the differences in romantic relationships and sexuality education among four groups of young people was possible, the investigation into the differences between the genders was not, due to a substantial majority of female participants in the study.

In terms of the limitations of the qualitative study (Study 3), the semi-structured interviews were conducted on a one-to-one basis, which might have added some pressure and anxiety to some participants, especially the ND groups since, as discussed in Chapter I, these groups of the population tend to experience greater issues with anxiety than their NT peers. Measures were undertaken to minimise such possible occurrences by providing participants with the choice of having their cameras off during the recording, as well as by offering participants a semi-structured interview question guide prior to the recording. Offering the question guide to participants in advance was

important, especially for ND participants, since it would have given them enough time to process the information.

Although individual semi-structured interviews were an effective method of data collection, employing focus groups might have offered a greater range of topics discussed; the spontaneity of the discussion in focus groups (Krueger, 1994), helping one another to recall information (Valentine, 1999) and, in general, a more relaxed and enjoyable atmosphere (Stewart & Shamdasani, 1990) might have provided a better environment, than the semi-structured interview, for some participants to discuss such a sensitive topic as sexuality. Notably, focus groups were also an advertised method of data collection for this study for the group with educational professionals, however, no participants showed interest in it.

All participants were an online sample, which indicates concerns about inclusion and accessibility since only participants with technological access and ability could provide their perspectives on the topic (Lunnay et al., 2015), as well as those who felt comfortable with online research. Notably, although both studies (surveys and interviews) were advertised in the UK (England, Ireland, and Scotland), participants were not asked to provide information regarding whether they lived in the UK, and hence the findings should be interpreted with caution for the UK population.

### VII.4. Future Research Directions

This project has provided preliminary understanding of romantic relationship experiences and sexuality education in three groups of ND young people; future research is therefore vital to further investigate this area to help gain a greater understanding of this topic and establish greater avenues of support for these groups of the population in terms of their sexuality education and romantic relationships.

Specifically, further research is important to investigate sexuality education in schools to establish effective ways of teaching that would be appropriate for the ND young population (Holmes et al., 2019). The explorations of the topic should include young people's and their parents' perspectives (Holmes et al., 2019; Teti et al., 2019), as

well as educators' views including ND teachers (Bloor et al., 2022; Mackin et al., 2016). In this study, only young people between the ages of 18-25 years old were invited to take part, which consequently limited the accuracy of the information provided about the current system of sexuality education since participants discussed their experiences from a few years back. However, sexuality education curriculum in England was reformed in 2019 (DfE, 2019). Thus, to ensure the most up-to-date information on current sexuality education, it would be beneficial to include younger groups of people in future research. Due to ethical considerations, however, this was not possible for this project. Additionally, in this research, participants with ASD co-occurring with ADHD comprised the smallest sample in all young people's groups, and although they offered important insights into the topic, it would be valuable to include a greater number of participants with a dual diagnosis to receive a greater variety of perspectives on the topic from this population. Equally, mainly young people of White ethnic backgrounds took part in the study; thus, including participants of different ethnic backgrounds and gaining their perspectives on sexuality would be useful, especially since cultural aspects play essential roles in shaping approaches to sexuality and romantic relationships.

Previous research, as reported in Chapter III, has shown that autistic females report experiencing more negative sexual events than their male counterparts and nonautistic females (Brown et al., 2017; Pecora et al., 2019), as well as show lower levels of sexual awareness when compared to their non-autistic peers (Bush, 2019). Similarly, females with ADHD have been found to have more sexual experiences (Halkett & Hinshaw, 2021), as well as shorter-lasting romantic relationships (Rokeach & Wiener, 2018) than their peers without the condition. Further exploration of these areas including gender differences, as well as trying to establish ways of potential support to decrease these discrepancies between ND young people and their NT counterparts is therefore vital.

Furthermore, only educators of students between 13-25 years old were invited to participate in the current study. In England, compulsory sexuality education begins in high schools, which include students aged 11-16 years old and thus it would be beneficial to include teachers of students from 11 years old. This study additionally included eight educators coming from different school settings (mainstream schools and special needs

schools [residential or non-residential]) and teaching students of different age groups. Separating participants according to school settings and students' age groups might provide greater insights into sexuality education within specific school settings and students' ages and the implications therein. Importantly, separating groups according to students' conditions (autistic students, students with ADHD, students with ASD cooccurring with ADHD) could also offer greater insights into sexuality education provided for a specific group of ND students. Therefore, these factors could be considered in further research. Additionally, given that this project (Study 2) showed that educators might have different perceptions in terms of the quality/provided teachings regarding sexuality education to students (educators reported providing teachings about various subjects related to sexuality whereas young people reported receiving teachings mostly related to the biological side of sexuality), it might be useful to conduct a study on sexuality education including students and their teachers and compare their perceptions of the taught topics. This may help understand whether students have similar or different expectations of sexuality education than their teachers and consequently may help establish what sexuality education is recognised as adequate by students. This is important as sexuality education should serve students and, hence they should be satisfied with it.

Importantly, in this research, educators mostly focused on describing sexuality education for autistic students, there were only a few specific references to sexuality for the group with ADHD and none for the group with ASD co-occurring with ADHD. This may indicate the greater need to adjust sexuality education to autistic students or that the educators, who took part in the study, presented a greater knowledge about the autistic group than others. Future studies, therefore, could focus on sexuality education from the perspectives of educators for young people with ADHD and a dual diagnosis.

Future research should also focus on exploring parent-child sexuality communication and help determine a greater understanding of how to support parents to help them discuss topics related to sexuality with their ND children more effectively (Hartmann et al., 2019). This study included only caregivers of young people between 13-25 years old. In England, however, as previously mentioned, sexuality education is compulsory already in primary schools (the aspect of romantic relationships), hence, it

would be useful to include caregivers of younger children in future studies on the topic, especially as in this study some caregivers voiced the need for an earlier start of sexuality education for children. Importantly, in this study, there was a lack of parental voices on the topic of children with ASD co-occurring with ADHD (although the study aimed at exploring the topic from the perspectives of caregivers of children with a dual diagnosis as well), hence future studies could aim at filling this gap in the current knowledge. Additionally, although this study aimed at involving children's fathers to provide their perspectives on the subject, mostly mothers took part in the research and, therefore, fathers' insights into this topic are still in demand.

### VII.5. Practical Recommendations and Implications

This research project has identified several important clinical implications related to sexuality education and romantic relationships for young people:

## VII.5.1. Inclusion of Specific Topics

- From the project's findings it is clear that the current system of sexuality education focuses mostly on the biological aspects of sexuality and adverse health outcomes (e.g., pregnancy prevention, and reproduction). However, sexuality incorporates *"not merely the absence of disease, dysfunction or infirmity* [but also] *the possibility of having pleasurable and safe sexual experiences* [...]" (WHO, 2015, p.5). In accordance with this, as well as with many participants in this study across all groups, it is essential to incorporate sexual pleasure in sexuality education. The aspect of pleasure in sexuality is vital in terms of an individual's well-being and hence this should be integrated into sexuality education (Mitchell et al., 2021 [UK]).
- Another subject that should be the focus in teaching sexuality, as highlighted in this project by many young people and educators, was related to LGBTQ+ sexuality (Astle et al., 2021; Pound et al., 2016). The current curriculum of

sexuality education includes LGBTQ+ sexuality as essential teaching that should be provided to young people (DfE, 2019), however, the voices from three groups of participants in this project indicated that this is not happening in practice (Nash & Browne, 2021 [UK]). This lack of inclusive sexuality education makes many young people who identify as LGBTQ+ discriminated against and this further contributes to their feelings of exclusion from society. One of the reasons for this exclusion of LGBTQ+ sexuality from education, as highlighted in this project, may be the incompetent teaching personnel to teach aspects related to LGBTQ+, despite their willingness to do so and awareness of the importance of including these topics in lessons, resulting from the lack of appropriate training for educators in this context. This strongly implies the importance of providing educators with adequate training to improve their understanding of LGBTQ+ sexuality to be able to offer adequate teaching to young people. Furthermore, caregivers also need support in increasing their understanding of this matter as LGBTQ+ young people report that they cannot discuss these topics with their parents due to shame and being afraid of rejection (Flores et al., 2019; Study 3).

- Topics specific to autistic young people included gender identity (Sala et al., 2020), and sensory processes (Gray et al., 2021). The literature highlights that autistic people tend to display greater gender diversity and dysphoria (Sala et al., 2020), therefore, providing adequate education on this topic may be essential. Additionally, sensory sensitivities constitute one of the features associated with autism (APA, 2013) and they may have a detrimental impact on some autistic people's romantic relationships (Brilhante et al., 2021; Cheak-Zamora et al., 2019; Dewinter et al., 2017b). Therefore, it is vital that sensory sensitivities are included in sexuality education for the autistic population (Gray et al., 2021).
- Aspects specific to young people with ADHD included ensuring a conducive environment (Lavoie, 2022), providing practical exercises, and teaching about rejection in the context of romantic relationships. Although providing a conducive environment for young people with ADHD was highlighted only by educators in this study (young people with ADHD did not mention it), research indicates that offering lessons conducted in an engaging manner may positively contribute to

the learning outcomes for young people with ADHD (Lavoie, 2022). Rejection has been highlighted as a substantial problem for some young people with ADHD in the context of romantic relationships as reported in this study and previous literature (Wallin et al., 2022). Rejection is a sensitive topic already in childhood and adolescence for some people with ADHD (Beaton et al., 2022; Gardner & Gerdes, 2015). It has been found that people with ADHD tend to display a more sensitive response to rejection than their counterparts without ADHD (Beaton et al., 2022). Therefore, ensuring that young people with ADHD receive adequate education about rejection and how to manage it in the context of romantic relationships may indeed be vital.

Due to the perceived inadequate sexuality education in schools/colleges and • young people's homes, some young people search for alternative avenues of learning about sex and relationships. In this study, pornography was reported as one of the main avenues of sexuality education for many young people. The prevalence of young people accessing pornographic material is indeed high (94% in Martellozzo et al., 2016 [UK]; 80% in Massey et al., 2020 [UK]). Watching pornography may lead to serious negative consequences including sexual coercion (Bernstein et al., 2022). In some ND young people, watching pornography has been found to lead to committing (often unintentionally) sexual offences, such as IIOC (Allely & Dublin, 2018; Mahoney, 2009). Additionally, some caregivers may not realise the full scale of the influence of pornography on young people (as reported in this study) and hence they may not feel the need to discuss it with their children, despite being aware that they access it on the internet. This implies the importance of raising greater awareness of the subject. Therefore, it is essential that young people receive education related to pornography and its potential negative consequences during sexuality education both in schools/colleges and at their homes.

## VII.5.1.1. Importance of Teachings Related to Romantic Relationships

- Another important aspect mentioned by many participants in all groups in this project was including topics related to romantic relationships in teaching. Although this subject is already integrated into the current sexuality education curriculum in England (DfE, 2019), it appears that in practice it is not always provided. Romantic relationships, however, are vital for young people as they help them develop their interpersonal skills and they have a substantial impact (negative or positive, depending on the experiences) on their well-being (Gonzalez Avilés et al., 2021). Notably, a large body of research across NT and ND young people's romantic relationship experiences (e.g., Brilhante et al., 2021; Bush, 2019, 2021; Mumford et al., 2023) highlights that they tend to experience great challenges with building and maintaining their relationships. Therefore, it is crucial that young people are provided with adequate support in this context.
- Neurodivergent groups of young people, especially autistic and with a dual diagnosis might require even greater support in this context than their NT peers, since, as displayed in this project, some autistic young people and young people with a dual diagnosis, although they long for romantic relationships, they lack even the most basic understanding of the subject including what a romantic relationship is and how to approach someone they find attractive (Cheak-Zamora et al., 2019; Hancock et al., 2020; Teti et al., 2019). Similar observations were made by some educators in this study, who emphasised the importance of teaching aspects such as knowing how to have a healthy relationship, how to go about it, how to recognise whether the relationship is healthy or not, how to recognise whether the relationship for ND students. Therefore, the focus should be aimed at providing autistic young people and young people with a dual diagnosis with essential knowledge that will help them gain adequate understanding to build and maintain romantic relationships.
- Since there appears to be a lack of specific programmes focusing on teaching related to romantic relationships that would be designed in the UK (Benham-Clarke et al., 2022), practitioners could consider creating a sexuality education intervention, which would specifically focus on the aspects related to romantic

relationships, based on this project's recommendations from three groups of participants (young people, educational professionals, and caregivers). Adequately design programmes may, in turn, help young people, and especially the ND groups, to learn how to navigate their romantic relationships and consequently improve their outcomes.

 Additionally, the intervention could be designed with the collaboration of young people's educators and caregivers to enhance its results. The intervention might also help to build a more effective parent-child sexuality discussion. Considering the proposed research implications of this project, it is crucial to remember that young people are at the centre of this discussion and hence their voice is paramount.

### VII.5.2. Improving Teaching Resources

- Further insights into improving sexuality education for young people, as highlighted by participants in this project, was providing appropriate resources for teaching sexuality. For example, incorporating practical resources was indicated as beneficial. Using practical resources in education has been found as an effective method of teaching which may contribute to enhancing students' skills and confidence in learning (Hubbard et al., 2017). Applying technology in teaching (e.g., short videos, applications) was also highlighted as a useful method by some participants in this study. Technology in teaching may provide additional educational opportunities and it can be an easily accessible and inexpensive avenue for providing sexuality information to young people (Kirana et al., 2020).
- Incorporating discussions into teaching might also be beneficial (Astle et al., 2021) as reported by some young people and educators in this research. Nevertheless, such open pedagogy may be more challenging for some educators than simply providing students with the lesson's content (Bragg et al., 2021 [UK]). This may indicate the need for adequate support for teachers in this respect.

# VII.5.2.1. Improving Teaching Resources for Neurodivergent Young People

- Importantly, these resources, as well as the approach to sexuality education should be specifically tailored to autistic young people (Bloor et al., 2022; MacKenzie, 2018; Mackin et al., 2016; Stanojević et al., 2021). In this study, some educators reported incorporating role-play and social stories as useful resources specifically for autistic students. These suggestions were in accordance with previous recommendations regarding sexuality education for autistic young people (Plexousakis et al., 2020; Stankova & Trajkovski, 2021), as well as being highlighted by NAS (2022). Some educators in this study recommended applying social stories followed by appropriate discussions on the topic with students. Rothman et al. (2020) demonstrated the potential benefits of using video vignettes portraying real-life situations, which later were followed by discussions related to the watched video by autistic students. Additionally, in this study, some educators recommended already existing programmes (e.g., "Sex and Relationships" [two books]) as successful in teaching sexuality to autistic young people. Pre-existed programmes might indeed be beneficial in teaching sexuality to autistic students (see Crehan et al., 2023; Pask et al., 2016).
- Importantly, in this study, some educators and caregivers highlighted that some already existing sexuality education materials (videos, pictures) might not be adequate for some autistic students as they may cause distress. Indeed, some videos or picture images might be overstimulating for some autistic students and take the students' attention away (Lee et al., 2018). Therefore, it is vital to adjust the resources to individual students' needs (Bloor et al., 2022; MacKenzie, 2018; Stanojević et al., 2021).

# VII.5.3. Importance of Adult Scaffolding in The Development of Sexuality and Romantic Relationships in Young People (Neurodivergent and Neurotypical)

Although learning through one's own experiences is an essential part of a young person's development (Jamison & Sanner, 2021), the lack of adult support in this respect contributes to the increased risk of experiencing negative outcomes including violence in romantic relationships of young people (Chen & Foshee, 2015; Mumford et al., 2023). The importance of adults (parents and teachers) in supporting young people's development of romantic relationships is therefore pivotal in order to help them avoid negative outcomes of their romantic relationships (Davis et al., 2021; Flores et al., 2019; Goldfarb & Lieberman, 2021; Goldman & Coleman, 2013; Mullis et al., 2021; Plaza-del-Pino et al., 2021). Nonetheless, in this study, young people reported having minimal (or not at all) sex-related discussions with their parents. The voices from caregivers in this study, as well as previous studies across different groups of young people (NT and ND) conducted in different countries, for example, the US, Spain, and Australia (e.g., Flores et al, 2019; Holmes et al., 2019; Kenny et al., 2021; Lameiras-Fernández et al., 2021; Mullis et al., 2021; Robinson et al., 2017) also supported that outcome. Parental willingness to discuss sexuality with their children, as reported in this study, may not be enough. One of the reasons for this inadequate communication on sexuality between parents and children, as indicated in this project, is embarrassment, which may be caused by some parents' lack of appropriate approach to initiate such discussions. Indeed, sexuality is a difficult topic to discuss (Ashcraft et al., 2017), given the taboo approach to it in our society (Mullis et al., 2021).

# VII.5.4. Importance of Adequate Training for Caregivers and Educators

• Consequently, providing parents with appropriate training allowing them to gain the required skills to conduct sexuality-related discussions with their children

might be beneficial (Mullis et al., 2021). In this study, parents understood the importance of romantic relationships in their children's life. Indeed, parent-child discussion related to romantic relationships is essential since children learn fundamental skills such as conflict management, which are crucial for successful romantic relationships, from their caregivers (Paat & Markham, 2019). Although, in this research, children did not share much information about their intimate relationships with them, due to feeling awkward at having such discussions, parents were aware that their children's romantic relationships were challenging. Some parents reported that they would like to receive support on how, in a sensitive way, approach their children about their romantic relationships in order to offer them appropriate advice. Some parents felt that professional support or school-based support could be useful for them in this respect.

 Notably, educators in this research also highlighted a lack of sexuality training for teaching staff (O'Brien et al., 2021; Walker et al., 2021) to enable them to feel well-equipped at teaching sexuality to all young people and specifically autistic young people (Bloor et al., 2022; Curtiss & Ebata, 2016). Therefore, offering all teaching personnel (including teaching assistants) specific training to help them increase their confidence and knowledge in providing sexuality education to young people was emphasised as essential in this project (Walker et al., 2021).

#### VII.5.5. Importance of Parent - School Collaboration

This project showed that parents believe that sexuality education is an important subject for their children, however, they also reported lacking knowledge about the topics that their children learn in schools due to lack of parent-school collaboration. Enabling adequate collaboration on sexuality education between schools and caregivers may thus be crucial (Ballan & Freyer, 2017; Study 3). Due to the sensitivity of the topic, cultural aspects, values, and beliefs of a family should be considered during sexuality education, thus the lessons ought to be established with children's families (Pugliese et al., 2020; Study 3). Educators in

this study also believed that school-parent collaboration on sexuality education is essential. Nonetheless, some reported a lack of openness to such collaboration by some parents of autistic students. Some of the reasons for this opposition from some caregivers might be that there is an existing (false) assumption that autistic people might be asexual (MacKenzie, 2018). Some parents of autistic young people may think that their children, due to their social limitations, may not develop meaningful romantic relationships (Holmes et al., 2020a; Mackin et al., 2016). Some may feel unprepared and unsupported to discuss sexuality with their autistic children (Holmes et al, 2016b). This implies an urgent need to provide caregivers of autistic young people with support and training regarding young people's sexual development, as well as how to appropriately approach topics related to sexuality with their autistic children. Schools might be useful in this context as suggested by some caregivers in this study.

#### VII.5.6. Importance of Involving Professionals in Sexuality Education

In this study, many young people and caregivers voiced the importance of including professionals (e.g., health providers, sexuality educators) in sexuality education for young people. Some young people in this study reported professionals as the most reliable source of information regarding sexuality and thus they wished to discuss any issues related to sexuality they had with them, as opposed to their teachers. Indeed, professionals may provide young people with adequate guidance about sexuality, answer various questions they may have, and offer gender-sensitive support (Hodax et al., 2020; Wagner et al., 2019). Due to the complexity of sexual health, a holistic approach to it, which would include professional services (mental health professionals, youth workers, and social workers) is recommended (Schnitzler et al., 2023). However, there are existing barriers for young people to receive sexuality-related professional support; they include a lack of initiative, personal discomfort, feelings of shame, and perceived judgment (Bungener et al., 2022; Lung et al., 2021).

- Professionals might also offer caregivers support on how to appropriately manage their sexuality communication with their children (Flores et al., 2019), hence they are crucial in helping shape sexuality education for young people.
- Young people in this project (particularly the ND groups) voiced feeling vulnerable to experiencing abuse; therefore, professionals working with young people (e.g., educators, social and health workers), should receive adequate training (if required) that would help them recognise signs of abuse in young people and also be aware of the barriers that young people may have when facing the disclosure of abuse. The training could specifically focus on the channels enabling those professionals, through asking questions and building trustful relationships with vulnerable young people, to be able to adequately identify signs of any potential abuse and accumulate suitable information from a variety of sources over time on the issue (Radford et al., 2017).
- Given that experience of abuse in young people, including sexual abuse, may have serious mental health implications in their future lives (Bendall et al., 2023), it is important to increase awareness about it by providing school-based educational programmes targeting not only young people but also their parents, families, and other adults who might be in a position to intervene in case of potential child abuse (Hudson, 2018).
- Sexuality education in the UK should be created with young people, their teachers, experts in the field (sexuality educators), and parents; this, in turn, may help to develop a system that is feasible, acceptable, relevant to young people's needs and incorporated into a mental health-informed curriculum (Benham-Clarke et al., 2022; Flores et al., 2019; UNESCO, 2018).

The following section will include the researcher's final reflective account of conducting this PhD project.

# VII. 6. Reflective account

Reflecting on analysing and writing up the interviews

I felt very excited when I started to analyse the interviews with the young people. I had some practice in conducting thematic analysis (TA), as both my dissertation (BSc and MSc) studies were qualitative, and I utilised TA to analyse the interviews I did for each of them. I also find the TA interesting as I regard myself as someone who likes to create. TA is quite an appropriate method for creative minds, as Braun and Clarke say. Additionally, I read appropriate chapters from 'Thematic Analysis: A Practical Guide' by Braun and Clarke (2021), which made me feel more confident with starting the process of analyses.

The coding process was enjoyable and did not feel difficult for me. I guess that might be partially due to having familiarised myself very well with the data before starting the process of coding. I knew all the interviews quite well as I had listened to them and had read them a few times before starting coding. Typically, I would spend a few hours coding and then I would go out for my run to the nearby woods. The time I was in nature was quite useful for me in terms of giving me space to reflect on my coding. After returning home, I would make notes on my reflections, and then I would revisit my coding; sometimes I could add additional codes.

Creating themes was a different matter as I really found it challenging. I had an overall understanding of what participants highlighted in their interviews, however, to be able to capture the most salient aspects highlighted in the data was really difficult. Therefore, I kept redoing the themes. I did not want to omit anything that the data showed as important for participants and I also wanted to make sure that the themes would convey the message that would truly portray the young people's voices. In addition, I wanted the themes to be interesting so that they would capture the potential readers' attention. This is not an easy task and hence considering all those factors, it took me a while before I created the final themes I was satisfied with. Similarly to the coding process, I would reflect on my themes during my runs (amazing how running can boost my creativity!). I would also take some days' break before revisiting my themes since I learnt that if I do not take a break, I do not even know what I am reading anymore in terms of my own work. Breaks thus were vital in the process of my analysis. Additionally, discussing the themes with my supervisors also helped me reflect upon them and make appropriate changes (if needed) before I finalised them.

Writing up is usually an enjoyable part for me, especially when I write about things I find interesting. I never have a problem with a lack of motivation then. My research topic is not only very interesting for me but also it is an important area that requires investigation; therefore, working on my project has been quite pleasurable for me since the very start of my PhD. Doing things that interest me generally relaxes me (hence I do not procrastinate and often continue working on my days off). I usually write up the first draft quite quickly but then it is always a time-consuming process to improve it. I always end up reading what I wrote so many times that at some point I become blind to it. And this is the time when I know I have to put aside my work for at least a week before returning to it. Otherwise trying to improve it would be a waste of time.

Overall, I enjoyed doing my PhD project and I felt very grateful to all participants for their contribution to this vital topic, without them, completing this project would have not been possible.

(Further reflective accounts are available on request.)

## VII. 7. Conclusion

The final chapter highlighted the unique contributions of this PhD project and outlined some limitations and future research directions. It also showed important practical recommendations and implications for the improvement of sexuality education for young people, and especially for the ND populations. Finally, it included the researcher's final reflective account relating to conducting this project.

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## Appendices

Appendix 1: Tables for Study 1: Systematic Literature Review

Table 1. Qualitative studies on the autistic population included in the systematic review.

Author( s)	Cou ntry	Sample characteristics Number, Age, Gender		Key aims of the study	Design Diagnosis S C				Key Findings
		ASD group	TD grou	-	reporting measures		R *	*	
Brilhan te et al. (2021)	Brazi I	N= 14 adolesce nts; n=8 males, n=5 females; n=1 neutral gender. Age range: 15-17 years old.	p	To investigate perspectives of autistic young people on their sexuality and sexual education.	No information on how participants' diagnosis was obtained provided.	Qualitativ e design, semi- structured interviews	x		<ul> <li>Experience of Romantic Relationships</li> <li>Some of the young people reported that they felt their teachers and parented do not recognise them as sexual beings. Some of them reported having difficulties with socialising. Some of them also reported diversity in sexual orientation and gender identity.</li> <li>Experience of Sexuality Education Some of the participants reported being ignored by their parents when trying to initiate conversations regarding sexual topics.</li> </ul>
Cheak- Zamora et al. (2019)	USA	N= 27 participa nts (40.7 % of the participa nts also		To investigate sexuality and relationships in autistic young people.	Diagnosis of ASD was confirmed by clinical record review.	Qualitativ e design. Semi- structured interviews	x		<i>Experience of Romantic Relationships</i> The majority (80%) of participants were not in romantic relationships, however, most of them (n=19/27 [70%]) expressed an interest in romantic relationships. The gender difference with regards to reporting little or

Author( s)	Cou ntry	Sample characteristics		Key aims of the study	Design				Key Findings	
		Number, Age	e, Gender	_	Diagnosis reporting		S R	C *		
		ASD	TD		measures		*			
		group	grou							
			р							
		reported							no interest in relationships was 21% of males	
		having a							compared to 29% of females. Young autistic	
		CO-							people who expressed their interests in	
		occurrin							being in a romantic relationship felt	
		g ADHD							confused/ad by their lack of ability and	
		diagnosi							knowledge to build a relationship.	
		s), n=20								
		males,								
		n=7 fomolocy								
		females;								
		age								
		range: 16-25								
		years								
		old.								
Dewint	The	N=8		To investigate	All	Qualitativ	х		Experience of Romantic Relationships	
er et al.	Net	males,		sexuality	participants	e design.			Although most of the young males (n=5) had	
(2017b)	herl	16-25		experiences in	were	Semi-			some romantic relationships' experiences,	
-	ands	years		autistic	diagnosed	structured			they also encountered challenges in those	
		old.		adolescent	with autistic	interviews			relationships including sensory and	
				males.	disorder or				information processing, and communication	
					Asperger's				difficulties.	
					disorder,					

Author( Cou s) ntry	y characteristics		Key aims of the study	Design				Key Findings	
	Number, Aខ្	ze, Gender		Diagnosis reporting		S R	C *		
	ASD group	TD grou p		measures		*			
Hannah UK and Stagg (2016)	n=20 (12 males, 8 females) ; age range:18 -25 years old.	p n=20 (7 males, 13 female s); age range:1 8-25 years old.	To investigate experiences of sex education and sexual awareness in autistic young people.	which was confirmed by the Autism Diagnostic Observation Schedule (ADOS; Lord et al., 2012). Autistic participants had previously received a diagnosis of ASD from a trained clinician.	Mixed methods design. <i>Part 1</i> (details in Table 1b) <i>Part 2</i> , semi- structured interviews (N=8; n=4 with ASD, n=4 TD [4	x		<ul> <li>Experience of Sexuality Education</li> <li>They reported learning about sexuality from peers or the Internet. Almost all (4) young males felt uncomfortable to discuss the topic with parents. The fifth participant said he discussed sex-related topics with parents comfortably due to [ speaking about himself] "having no shame".</li> <li>Experience of Romantic Relationships</li> <li>Some participants reported being confused about their sexuality. Some participants felt anxious when meeting potential romantic partners. Some also reported difficulties with understanding feelings and intentions of other people. Some participants reported experiencing abuse in their relationships or stalking their partners.</li> <li>Experience of Sexuality Education Dissatisfaction with sexuality education including the content and how it was</li> </ul>	

Author( Cou s) ntry		Sample characteristics Number, Age, Gender		Key aims of the study	Design				Key Findings	
					Diagnosis reporting		S R	C *		
		ASD	TD		measures		*			
		group	grou							
			р			4				
						4 females]).				
Mackin et al. (2016)	USA	N=15 parents (14 females) of young individua ls (N=16 [14 males], age range: 14-20 years old, <i>M</i> age=16.4 years).		To investigate parent perceptions of sexuality education needs for their autistic children.	Parents provided ASD diagnosis information.	Qualitativ e design. 5 participan ts took part in 1 focus group and 10 complete d individual interviews (assisted by a structured interview guide).	x		Experience of Sexuality Education All parents indicated that some level of sexuality education was important for their children. Parents believed that the recognition of healthy relationships was a vital topic for their children to learn about. Many of parents reported being concerned about their child being sexually abused or exploited. Additionally, parents suggested future interventions including the use of technology in sexuality education for their autistic children.	
Masou	Iran	N=27		To highlight the	All children	Qualitativ		х	Experience of Romantic Relationships	
di et al.		parents		experiences of	had the	e design.			Parents showed various worries about their	
(2022)		(n=22		Iranian					autistic children's sexual behaviours	

Author( s)	Cou ntry	Sample characteristics		Key aims of the study	Design				Key Findings	
		Number, Age	e, Gender		Diagnosis		S	С		
					reporting		R	*		
		ASD	TD		measures		*			
		group	grou							
			р							
		mothers,		parents in	diagnosis of	27			including concerns about their children	
		n=5		dealing with the	ASD.	parents of			being more vulnerable to sexual abuse than	
		fathers)		sexual		autistic			their non-autistic peers; concerns that	
		of		behaviours of		children			society does not accept their children's	
		autistic		their autistic		complete			sexual behaviours that might be conflicting	
		children		children.		d			with the religious and cultural values of	
		(77%				individual			society. Being unable to accept their	
		males)				semi-			children's sexual behaviours, parents were	
		( <i>M</i> age=				structured			suffering psychologically (e.g., having	
		14.00±6.				interviews			depression, anxiety). Parents were also	
		00							worried about their children's future sexual	
		years).							lives since their sexual behaviours (e.g., masturbation and premarital sex) were unacceptable by the socio-cultural structure in the country.	

Author( Cou s) ntry		y characteristics		Key aims of the study	Design			Key Findings	
		Number, Age, Gender			Diagnosis	S	С		
					reporting	R	*		
		ASD	TD		measures	*			
		group	grou						
			р						
Palerm	The	18-year-		To investigate	Diagnosis of	х		Experience of Romantic Relationships	
o and	Net	old-		experiences of	Asperger			The young male was selling himself in	
Bogaer	herl	male.		an autistic man	Syndrome.			exchange for money. This man did not desire	
ts	ands			who was selling				a romantic relationship, nevertheless, his	
(2015)				himself in				social exclusion and lack of peer support	
				exchange for				rendered him more vulnerable, than other	
				money.				people his age, to predatory advances by	
								other adults.	

Teti et	USA	N=27	To investigate	Diagnosis of	Qualitativ	Х	х	Experience of Romantic Relationships
al.		participa	perceptions of	ASD was	e design.			The results showed that autistic participants
(2019)		nts,	sexuality and	verified	Caregivers			(more than 50%) showed interest in
		n=20	relationship	through	took part			romantic relationships, however, many of

Author( s)	Cou ntry	Sample characteristics		Key aims of the study	Design				Key Findings	
		Number, Age	e, Gender		Diagnosis		S	C *		
		ASD	TD	-	reporting measures		R *	4		
		group	grou p							
		males;		experiences in	clinical	in 90-			them felt they did not have the appropriate	
		n= 7		autistic young	records.	minute			skills to build a relationship.	
		females;		people.		focus			Caregivers reported concerns about their	
		age				groups,			children's sexual safety and the possibility of	
		range:16				autistic			them having no romantic relationships in	
		-25				young			future. This study also revealed that	
		years,				people			caregivers may not always know their	
		caregiver				took part			children's sexual experiences well.	
		s: n=29,				in 60-				
		25				minute				
		mothers,				semi-				
		3				structured				
		fathers,				interviews				
		1 other.								

\*SR=self-reports; \*C=caregivers' reports.

 Table 2. Quantitative studies on the autistic population included in the systematic review.

Autho r(s)	Cou ntry	•	aracteristics Age, Gender	Key aims of the study	Measures used				Key Findings		
	·	ASD group	TD group	-	Diagnosis reporting measures	Other measures	S R *	C *			
Bush (2019 )	USA	n= 248 females, <i>M</i> age=23.2 years, age range: 18- 30 years old.	n=179 females, <i>M</i> age=21.8 years, age range: 18- 30 years old.	To investigate romantic relationships and sexuality in autistic females.	10-item Autism Spectrum Quotient (AQ- 10) (Allison et al., 2012)/ 50- item Autism- Spectrum Quotient (Baron-Cohen et al., 2001)/	Quantitati ve design. Sexual History Questionn aire (SHQ) (Cupitt et al., 1998)/ Sexual Desire Inventory (SDI) (Spector et al., 1998)/ Sexual Experienc e Questionn aire (SEQ)(Trot ter et al., 2007) / Sexual Satisfactio	X		Experience of Romantic Relationships Autistic females engage in sexual behaviours less often (median number of sexual activities was 11, compared to 14 in participants without ASD); show significantly lower levels of sexual desire [t (76,295) =-2.83, p<.01]. Experience of Sexuality Education Autistic females display lower levels of sexual awareness [t(13,696,240)=-6.50, p<.001] including their own sexual thoughts, feelings, sensations and how they present sexuality to other people than NT peers.		

Autho r(s)	Cou ntry	•	aracteristics ge, Gender	Key aims of the study	Measures used		Key Findings		
				_	Diagnosis reporting	Other measures	S R	C *	
		ASD group	TD group		measures		*		
						n Scale for Women (SSSW)(M eston and Trapnell, 2005) / Sexual Awarenes s Questionn aire (SAQ)(Snel l et al., 1991).			
Bush (2021 )	USA	N= 247 participan ts (51% cisgender women, 49% more diverse gender identities including 17%		To investigate romantic relationships and sexuality in autistic females.	Self-reported ASD on Autism- Spectrum Quotient 9AQ- 10; Allison et al. 2012)	Quantitati ve design. Sexual Desire Inventory (SDI; Spector et al., 1998), item scores	X		Experience of Romantic Relationships A substantial number of participants (n=88, [36%]) reported an asexual spectrum identity, other sexual identities included bisexual (15%), pansexual or polysexual (14%), queer (10%), and gay or lesbian (6%), heterosexual (8%). Participants who identified as asexual were more likely to report a non-binary gender identity (59% versus 44%), be single (66% versus 45%) and live with their parents (50% versus

	Cou ntry	Sample cha Number, A	aracteristics ge, Gender	Key aims of the study	Mea	sures used			Key Findings	
		ASD group	TD group	,	Diagnosis reporting measures	Other measures	S R *	C *		
		agender, or without				were converted			36%) and had consensual sex with a partner (31% versus 73%) than other	
		gender); age				to z scores and			participants.	
		range:18– 30 years				summed to create				
		old; <i>M</i> age= 23.2				a composite				
		years.				score/ Sexual				
						Experienc e				
						Questionn aire (SEQ;				
						Trotter and				
						Alderson, 2007),				
						responses were				
						dichotomi zed				
						("never" versus				
						other				

Autho r(s)	Cou ntry	•	aracteristics Age, Gender	Key aims of the study	Measures used				Key Findings
	·	ASD group	TD group	-	Diagnosis reporting measures	Other measures	S R *	C *	
Dewin ter et al. (2016 a)	The Neth erla nds	n=30 males, 16- 20 years old.	n=60 males, 16-20 years old.	To investigate sexuality in autistic adolescent males (follow-up study to 2015).	A formal diagnosis of ASD followed up by assessment: Autism Diagnostic Observation Schedule (ADOS) module 4 (fluent speech) (Lord et al., 1999).	frequenci es) and added to create a summary sexual behaviour score, ranging from 0 to 19. Quantitati ve design. Sex under the age of age 25 II survey (de Graaf et al., 2012).	x		Experience of Romantic Relationships The majority (80%) of autistic young males reported experiencing being in love. Autistic young males were more likely to report experiencing no partnered sexual activities (30% versus 8.3%) such as French kissing (30% versus 12%) and petting (30% versus 12%) than their TD peers. However, no significant differences were reported with regards to more intimate partnered sexual experiences between autistic males and non-ASD peers (56.7% versus 66.75%).

Dewin     The eral al.     N=43 eral parent     To parents     To investigate parental awareness of (kuit ASD)     To parental awareness of (kuit MASD)     To parental awareness of (kuit MASD)     ASD was parental awareness of (kuit MASD)     Quantitati ve design.     x     x <i>Experience of Romantic Relationships</i> Parents showed a tendency to undervalue their sons' sexual experiences including dyad, the age range of the sons 15-       18 years, Waars, Waars, Waars,     adolescent madule 4     al., 2012)/ al., 2012)/     To parental adviscent     ASD was assessed with the ADOS     Quantitati ve design.     x     x <i>Experience of Romantic Relationships</i> Parents showed a tendency to undervalue their sons' sexual experiences including dyad, the age range of the sons 15-       18 years, Waars,     males.     speech) (Lord et al., 1999).     answered nnine questions about their sons' lifetime experience e of various sexual behaviour     x     x     x       20 for the sons 15-     speech) (Lord et al., 1999).     answered nine questions about     answered nine experienc e of various     answered sout     about their sons' lifetime experienc e of	Autho r(s)	· · · · ·				Mea	asures used			Key Findings	
ter et al.Neth erlapairs: a parentinvestigate parentalassessed with the ADOSve design.Parents showed a tendency to undervalue their sons' sexual experiences including masturbation (95.3% of adolescents(2016 (b)ndsand a son a ad a son (with ASD)sexual experience in ObservationDiagnostic SEx under25 II' reported it versus 53.6% of parents), orgasm (88.4% versus 50%). This may impact communication and education adolescentadje range of the sons 15-adolescent adolescentMoule 4 speceh) (Lord apsech) (Lord about et al., 1999).about sexuality in families.M age=16.67 yearsM age=16.67 yearsS (specificall yYY		·			_	reporting		R			
developed	ter et al. (2016	Neth erla	pairs: a parent and a son (with ASD) dyad, the age range of the sons 15– 18 years, <i>M</i> age=16.67		investigate parental awareness of sexual experience in autistic adolescent	assessed with the ADOS (Autism Diagnostic Observation Schedule), module 4 (fluent speech) (Lord	ve design. Sex under the age of 25 II' study (de Graaf et al., 2012)/ Parents answered nine questions about their sons' lifetime experienc e of various sexual behaviour s	x	x	Parents showed a tendency to undervalue their sons' sexual experiences including masturbation (95.3% of adolescents reported it versus 53.6% of parents), orgasm (88.4% versus 50%). This may impact communication and education	

Autho r(s)	Cou ntry	Sample cha Number, A	racteristics Key aims of ge, Gender the study	Measures used				Key Findings	
		ASD group	TD group	,	Diagnosis reporting measures	Other measures	S R *	C *	
						for this study).			
Dewin ter et al. (2015 )	The Neth erla nds	n=50 males, age range: 15- 18 years old.	n=90 males, age range: 12- 25 years.	To investigate sexuality in autistic adolescent males.	A formal diagnosis of ASD prior to the study, followed up by assessment: Autism Diagnostic Observation Schedule (ADOS) module 4 (fluent speech) (Lord et al., 1999) to the participating boys and the Autism Diagnostic Interview- Revised (Rutter et al.,	Quantitati ve design. Sex under the age of age 25 II survey (de Graaf et al., 2012).	x		Experience of Romantic Relationships Most males reported being in love (82% with ASD, 85.6% without ASD), dated someone (70% with ASD, 73.3% without ASD). Most males with ASD and without ASD reported feeling an attraction only to the opposite sex (88% versus 93.3%), however, males with ASD were significantly more approving of homosexuality than their TD peers (ASD Median=4.00, versus non-ASD Median=3.33). Additionally, both groups viewed explicit sexual images in porn magazines (36% with ASD, 36.7% without ASD), watched the video clip with nudity (70% with ASD, 75.6% without ASD), watched porn on the Internet (76% with ASD, 73.3% without ASD), used online sex services (4% with ASD, 3.3% without ASD).

Autho r(s)	Cou ntry	•	aracteristics ge, Gender	Key aims of the study	Meas	sures used			Key Findings	
.,		,			Diagnosis	Other	S	С		
				_	reporting	measures	R	*		
		ASD group	TD group		measures		*			
					2003) to their					
					parents.					
Ferna	Swe	N=184		То	The young	Quantitati	х	х	Experience of Romantic Relationships	
ndes	den	individual		investigate	people	ve design.			The big majority of autistic individuals were	
et al.		s, age		sexuality in	received a	Study 1:			found to have a sexual interest (65% as	
(2017		range: 15-		adolescents	diagnosis of	Caregivers			reported by caregivers in Study 1, 51% as	
)		39 years,		and adults	ASD in	:			self-reported by autistic males in Study 2)	
		predomin		with a	childhood	The			and showed interest towards the opposite	
		antly		childhood	(before the	Diagnostic			sex (39% as reported by caregivers in Study	
		males.		diagnosis of	age of 10).	Interview			1, 49% as self-reported by autistic males in	
				ASD.	No measures	for Social			Study 2). None of the autistic participants	
		Study 1:			were reported	and			reported unknown sexual orientation,	
		n=90			for Study1.	Communi			whereas 7% of parents reported it on the	
		caregivers			The Asperger	cation			behave of their children. Inappropriate	
		; n=5 staff			Syndrome	Disorders			sexual behaviours	
		(no			Diagnostic	(DISCO,			were reported by 25% of caregivers (Study	
		informatio			Interview	Wing et			1) and only 4% by autistic males (Study 2)	
		n on			(ASDI,	al.,			including masturbation in public (18% in	
		caregivers			(Gillberg et al.,	2002)/The			Study 1, 0% in Study 2), sexual attraction	
		' gender			2001) for	Wechsler			towards children (0% in Study 1, 2% in	
		available) of			Study2.	Intelligenc			Study 2). The presence of any paraphilias	
						e Scales			was reported by 24% in Study 2 including	
		n=108 <i>, M</i>				(WAIS-III, Wechsler,			fetishism (11%) and voyeurism (13%). No gender differences were reported.	
		age= 25				1997)/			genuer unterences were reported.	
		years;				1997)/				

Autho r(s)	Cou ntry		aracteristics Age, Gender	Key aims of the study	Mea	sures used			Key Findings
		ASD group	TD group		Diagnosis reporting measures	Other measures	S R *	C *	
		males=78 (72%), females= 30 (28%) (94% had IQ below 70) <i>Study 2:</i> n=76, <i>M</i> age= 22, autistic (AS) males=76 (100%).	10 8.00p			The Vineland Adaptive Behavior Scale (VABS, Sparrow et al.,1984) Study 2: autistic males: The Diagnostic Interview for Social and Communi cation Disorders (DISCO, Wing et al., 2002)/			
						The			

Autho Cou r(s) ntry		Sample characteristics Number, Age, Gender		Key aims of the study	Measures used				Key Findings		
					Diagnosis reporting	Other measures	S R	C *			
		ASD group	TD group		measures		*				
Hanco ck et al. (2020 )	Aust ralia	n= 233 participan ts (41.6% males), <i>M</i> age=25.13 years old.	n= 227 (29.1% males), <i>M</i> age=22.16 years old.	To investigate romantic relationship experiences in autistic individuals.	Autism Quotient (AQ- Adolescent: [ Baron-Cohen et al., 2006]); AQ- Adult:(Baron- Cohen et al., 2001).	Wechsler Adult Intelligenc e Scale- Third edition (WAIS-III, Wechsler, 1997). Quantitati ve design. Sexual Behaviour Scale – Third edition (SBS-III, [Hancock, 2017]).	x		Experience of Romantic Relationships Autistic participants reported a similar level of interest in relationships to the NT group (ASD Mean=3.35 versus NT Mean=3.12). However, they had fewer opportunities to meet potential partners (ASD Mean= 1.32 versus NT Mean= 1.28) and felt more anxious when meeting any potential partners (ASD Mean= 8.81 versus NT Mean= 7.23) than the NT group. They also reported having shorter-lasting relationships (ASD Mean=.78 versus NT		
									Mean= .77), and bigger concerns about their future romantic relationships (ASD Mean=.80 versus NT Mean= .61) than their NT peers. The mediation model for		

Autho r(s)					ures used Key Findings				
		ASD group	TD group	-	Diagnosis reporting measures	Other measures	S R *	C *	
Hann ah and Stagg (2016 )	UK	n=20 participan ts (12 males, 8 females); age range:18- 25 years old.	n=20 (7 males, 13 females); age range:18- 25 years old.	To investigate experiences of sexuality education and sexual awareness in autistic young people.	Autistic participants had previously received a diagnosis of ASD from a trained clinician. No measures were reported.	Mixed methods design. Part 1: Sexual knowledg e, experienc e, feelings and needs scale (SexKen and McCabe,	x		moderation by gender showed that for females, there was a significant direct effect of ASD status on romantic relationship experiences (b=2.06, SE=0.97, p=0.03), but there was no indirect effect with social peer engagement as the mediator (b=-0.41, SE=0.29, p=ns), for males, the direct and indirect effects were not significant (b=0.58, SE=1.28, p=ns; b=- 30, SE=0.23, p=ns). No further gender differences were reported. <i>Experience of Sexuality Education</i> Autistic participants showed similar feelings with regards to sexuality education as their NT peers (ASD Mean= 15.75 versus TD Mean=16.7), they scored significantly lower on measures of sexual awareness including sexual consciousness (ASD Mean=11.85 versus NT Mean= 18.15), sexual-monitoring (ASD Mean=13.45 versus NT Mean= 19.5), sexual- assertiveness (ASD Mean=7.05 versus NT Mean= 16.25) and sex-appeal- consciousness (ASD Mean=2.1 versus NT

Autho r(s)	Cou ntry		e characteristics Key aims of Measures used er, Age, Gender the study				Key Findings		
				-	Diagnosis reporting	Other measures	S R *	C *	
		ASD group	TD group		measures	1999)/ The sexual awareness questionn aire (SAQ, Snell et al., 1991)/ (which all participan ts in both groups complete d). Part 2 (details in Table 1a).			Mean= 4.85). No gender differences were reported.
Hartm ann et al. (2019 )	USA	N=100 young adults, age range 18-30 years ( <i>M</i> age=22; males=52		To investigate sexuality in autistic young people.	Autism Quotient10 (AQ-10; Adapted from Baron Cohen et al., 2001).	Quantitati ve design. Sexual Experienc es Survey (SES; Koss and Oros, 1982)/	х	х	Experience of Romantic Relationships Autistic young adults (73%) reported having romantic interests in other people, (comparted to 61% of their parents having reported that on their children's behalf). They reported more typical privacy (Mean=.84 versus Mean=.08), sexual behaviours (Mean=.83 versus Mean=.80)

Autho r(s)	Cou ntry	•	aracteristics ge, Gender	Key aims of the study	Meas	sures used	Key Findings		
		ASD group	TD group	-	Diagnosis reporting measures	Other measures	S R *	C *	
		%, females= 47%) and their parents (N=100, mothers= 54%, fathers=4 4%).				General Sexual Knowledg e Questionn aire (GSKQ; Talbot and Langd on, 2006)/ Klein Sexual Orientatio n Grid (KSOG; Klein, 1993).			and higher sexual victimisation (Mean=1.41 versus Mean= 1.16) than their parents reported on their behalf. <i>Experience of Sexuality Education</i> 40% of autistic young people reported learning about sexual topics from their parents, which was consistent with 42% of parents who also reported it. 17% of the young people reported learning about sexuality from the Internet (only 7% of parents reported this on their child behalf). No gender differences were reported.
Holm es et al. (2020 a)	USA	N=298 parents (92.2% females) of young people (n=52.7% boys); age		To investigate sexuality and sexual health in autistic young people.	Parents reported that their child had a formal medical diagnosis of ASD. No measures	Quantitati ve design. Sexual Behaviour Inventory and Parent Action	х	x	Experience of Romantic Relationships The majority of parents reported that their children show sexual attraction (68.5%) including same-sex attraction (13.2%) and desire romantic relationships (58.4%). 12.5% of parents reported that their children experienced a romantic relationship, 2% reported that their

Autho r(s)	Cou ntry	•	aracteristics ge, Gender	Key aims of the study	Me	easures used			Key Findings
	·				Diagnosis reporting	Other measures	S R	C *	
		ASD group range 12- 18 years.	TD group		were reported.	Inventory were created specificall y for this study/ Social Responsiv eness Scale— Second Edition (Parent Report)	*		children had sexual intercourse, 6.4% reported that their children had a history of sexual abuse. 57.3% of parents of boys versus 59.6% of parents of girls reported their children expressed a desire for a romantic relationship and 6.5% of parents of boys versus 19.1% of parents of girls that their children experienced a romantic relationship.
						(Constanti no et al, 2012).			

Autho r(s)	Cou ntry	•	aracteristics ge, Gender	Key aims of the study	Mea	sures used		Key Findings	
. ,	,	ASD group	TD group	-	Diagnosis reporting measures	Other measures	S R *	C *	
Holm es et al. (2019 )	USA	N=141 parents of autistic girls (around 90% and above female parents in all groups). Study was divided into 4 groups of different intellectua I functionin g (IF) of children: Below 70 (n=37, <i>M</i> age=13.9 years);		To investigate sexuality communicati on between autistic girls (with different intellectual abilities) and their parents.	The ASD diagnosis was given by a healthcare professional (the information was provided by parents). No measures were reported.	Quantitati ve design. A 50-item survey that included questions about parent and child demograp hics and complete d the Parent Sex Education Inventory (PSEI) about family sexuality communic ation (Holmes and		x	Experience of Sexuality Education Across all four groups, most parents discussed sexuality topics with their children (Groups: IF < 70, Mean=6.67; Borderline, Mean=12.63; Average, Mean=15.02; Above average, Mean=17.25) as opposed to using any visual supports (Groups: IF < 70, Mean=1.86; Borderline, Mean=4.06; Average, Mean=6.36; Above average, Mean=5.93) or skills-based teaching techniques (Groups: IF < 70, Mean=2.58; Borderline, Mean=1.44; Average, Mean=2.52; Above average, Mean=1.80). Intellectual functioning, child age, race/ethnicity, and child's expressed interest in sexuality impacted the family sexuality communication.

Autho r(s)	Cou ntry		aracteristics sge, Gender	Key aims of the study	Me	easures used		Key Findings		
.,	,		0 /	,	Diagnosis reporting	Other measures	S R	C *		
		ASD group	TD group		measures		*			
		Borderline				Himle,				
		(n=16 <i>, M</i>				2014)/				
		age=14.0				Parent Sex				
		years);				Education				
		Average				Inventory				
		(n=44 <i>, M</i>				(PSEI)				
		age=14.5				(designed				
		years);				specificall				
		Above				y for this				
		Average				study)/				
		(n=44 <i>, M</i>				Social				
		age=14.5				Responsiv				
		years).				eness				
						Scale—				
						2nd				
						Edition				
						(Parent				
						report)				
						(SRS-2)				
						(Constanti				
						no and				
						Gruber,				
						2012).				

Autho r(s)	Cou ntry	•	racteristics ge, Gender	Key aims of the study	Meas	sures used		Key Findings	
	·	ASD group	TD group	-	Diagnosis reporting measures	Other measures	S R *	C *	
Holm es et al. (2016 a)	USA	N= 190 caregivers (92% mothers) of autistic adolescen ts (86.8% males; 12- 18 years old, M age=14.5 years).		To investigate expectations and parent- child sexuality communicati on in autistic adolescents.	Parents reported that their children's ASD diagnosis was given by a healthcare professional. No measures were reported.	Quantitati ve design. Social Responsiv eness Scale— 2nd edition (parent report) (SRS-2, Constanti no and Gruber, 2012)/ Online sexuality survey (designed for this study).		x	Experience of Romantic Relationships Parents of children with more severe autistic symptoms had lower expectations with regards to their child romantic relationships (F (3,182) =8.838, p=0.005, R2=0.127). Experience of Sexuality Education Parents who had greater romantic expectations for their child discussed a greater number of sex-related topics with their children (F (1,181) =26.908, p=0.005, R2=0.129). No significant changes were reported for a male-only sample (after excluding female adolescents).

Autho r(s)	Cou ntry		aracteristics ge, Gender	Key aims of the study	sures used			Key Findings	
	,	ASD group	TD group	-	Diagnosis reporting measures	Other measures	S R *	C *	
Holm es et al. (2016 b)	USA	N=131 caregivers (92.2% mothers) of autistic adolescen ts (87% males; 12- 18 years old).		To investigate parental sexuality- related concerns for autistic adolescents.	Parents reported that their children's ASD diagnosis was given by a healthcare professional. No measures were reported.	Quantitati ve design. Social Responsiv eness Scale— 2nd edition (parent report) (SRS-2, Constanti no and Gruber, 2012)/ Online sexuality survey (designed for this study)/ Parental sexuality concern inventory		x	Experience of Romantic Relationships Parents (90.7%) reported being concerned that their child's poor social skills might negatively affect their dating and marriage, 89.9% of parents reported being concerned about their children's ability to create and maintain a healthy, fulfilling relationship. 66.7% of parents were concerned about their children's lack of opportunities to experience partnered sexual relationships, and 88.3% were concerned about their children finding a partner/spouse. Some parents also reported concerns about inappropriate sexual behaviours exhibited by their children (some parents reported that their children had exhibited behaviours including touching someone without their consent (7.7%), masturbated in public places (3.8%).38% of parents were concerned about their children contracting an STD, and 56% of parents of verbal females versus 21% of parents of verbal males were concerned about their child's accidental pregnancy. No further gender differences were reported.

Autho r(s)	Cou ntry	Sample characteristics Number, Age, Gender		Key aims of the study	Me	asures used			Key Findings
					Diagnosis	Other	S	С	
					reporting	measures	R	*	
		ASD group	TD group	-	measures		*		
						(PSCI)			
						(designed			
						for this			
						study)/Par			
						ental			
						sexuality			
						education			
						inventory			
						(PSEI)			
						(designed			
						for this			
						study).			

Joyal	Can	n=68	n=104	To explore	Self-reported	А	х	Experience of Romantic Relationships
et al.	ada	young	young	sexual	formal	quantitati		Autistic participants (46.6%) reported that
(2021		people	people	knowledge,	diagnosis of	ve design.		they rarely or sometimes socialise with
)		(n=41	(n= 29	desires, and	ASD. No	An online		others, compared to only 8.7% of NT
		males, M	males, M	experience	measures	survey		reporting this.
		age=19.4	age=18.4	of autistic	were	designed		Autistic participants (64.7%) believed that
		years;	years;		reported.	for the		in order to make up a good romantic

Autho r(s)	Cou ntry	•	Sample characteristicsKey aims ofMeasures usedNumber, Age, Genderthe study						Key Findings
		ASD group	TD group	-	Diagnosis reporting measures	Other measures	S R *	C *	
		n=27 females, <i>M</i> age=19.7 years).	n=75 females, <i>M</i> age=19.1 years).	young people.		study (based on Sexual Behavior Scale- Third edition (SBS-III) Hancock, 2017.			relationship, the other person has to have similar interests to theirs, compared to 37.5% of NT reported it. Both groups wanted to have romantic relationships (77.9% autistic group versus 82.7% TD group). 67.6% autistic participants were sexually attracted to someone, wish to have sex with another person (67.6%) and be in a sexual relationship (60.3%) compared to NT participants 96.2%, 94.2%, 85.6% respectively. 41.5% of autistic males reported watching pornography (versus 75.9%, NT males) and/or 39% autistic males reported masturbating with pornography (versus 75.9% NT males). 39.7% of autistic females reported that they would tell things about themselves that they think the other person would like in order to have casual sex, compared to 17.3% of the non-autistic females reported it. 42.5% of autistic males had sex, compared to 69% of the non- autistic males, no difference was reported

Autho r(s)	Cou ntry	•	aracteristics ge, Gender	Key aims of the study	Mea	sures used		Key Findings	
	·	ASD group	TD group	-	Diagnosis reporting measures	Other S measures R *		C *	
									between female groups. 81.5% of autistic females reported having had a boyfriend/girlfriend at least once in their lifetime, compared 69% non-autistic males. Autistic females (51.9%) reported more unwanted sexual experiences than their TD peers (32%). <i>Experience of Sexuality Education</i> More autistic participants (42.6%) reported little sexuality knowledge than their NT peers (15.4%).
Kenny et al. (2021 )	USA	N=87 parents (females 89%) of children (13-18 years old; no informatio n on the child's		To investigate parents' plans to communic ate about sexuality and child sexual abuse with their autistic children.	Parent- reported their child's ASD. No measures were reported.	Quantitati ve design. Family Life Education Questionn aire (El- Shaieb and Wurtele, 2009)/ Worry About		х	Experience of Romantic Relationships Many parents (74%) had concerns about the sexual victimisation of their autistic children by their peers and 86% worried that their child might be sexually abused by an adult. 43% of parents reported worrying that their child might get involved in sexual activity with another child under the age of 18. Experience of Sexuality Education

Autho r(s)	Cou ntry	Sample characteristics Number, Age, Gender			Measures used				Key Findings	
		ASD group	TD group		Diagnosis reporting measures	Other S measures R *		C *		
		gender provided).				Child Sexual Abuse and Knowledg e of Sexual Abuse were questionn aires developed specificall y for this study by the research team.			Many parents (58.8%) reported speaking with their children about some aspects of sexuality education. Some parents (59%) felt that their child would not understand what abuse is due to their limited communication skills. Most parents (83%) reported using no aids to discuss sexuality with their autistic children. Some parents felt ill-equipped to handle some sexual topics with their children (e.g., 7% felt embarrassed to talk about sexual abuse). No gender differences were reported.	
Kotzé et al. (2017 )	Sout h Afric a	N=24 parents (23 mothers and 1 grandmot her were identified		To investigate the association between certain clinical and demographic	The ASDs diagnosis was collected by the researcher from the psychiatric data.	Quantitati ve design. Demograp hic questionn aire (age; socioecon omic		x	<i>Experience of Romantic Relationships</i> This study did not find any association between certain demographics and clinical factors in a specific population of children with ASDs and their sexual behaviours. Findings demonstrated that, e.g., only 2 children (33%) from less stable socioeconomic	

Autho r(s)	Cou ntry	-	aracteristics ge, Gender	Key aims of the study	easures used			Key Findings	
		ASD group TD group		-	Diagnosis reporting measures	Other measures	S R *	C *	
		as the	TD group	factors found	measures	circumsta			and family environments exhibited more
		primary		in a sample		nces/statu			, abnormal sexual behaviours (e.g., doesn't
		caregivers		of children		s of			know where it is allowed to be naked;
		) of		with ASDs		family;			touches genitals in the presence of others;
		, children		and their		and			grabs females breasts) and 9 (50%) of
		with ASDs		reported		marital,			children from more stable environments
		(3		sexual		education			also
		females,		behaviour		al,			exhibited such behaviours.
		21 males)		(RSB).		financial			
		(n=21				and			
		autistic,				employme			
		n=1				nt status			
		Asperger's				of			
		, n=2 PDD				parents/p			
		NOS				rimary			
		(Pervasive				caregivers			
		Developm				).			
		ental				Child			
		Disorder				Sexual			
		Not				Behaviour			
		Otherwise				Inventory			
		Specified);				(CSBI)(Frie			
		(14				drich et			
		children				al., 2001);			
		between							

Autho r(s)	Cou ntry	•	aracteristics sge, Gender	Key aims of the study	Me	easures used	Key Findings		
		ASD group TD group		- -	Diagnosis reporting measures	Other measures	S R *	C *	
		the age of 3-12 years; 10 children between the age of 12-18 years).				Interview of Sexuality in Autism Revised (ISA-R) (Helleman s et al., 2010).			

Autho r(s)	Cou ntry	•	aracteristics ge, Gender	Key aims of the study	Measures used				Key Findings
		ASD group	TD group	,	Diagnosis reporting measures	Other measures	S R *	C *	
May et al. (2017 )	Aust ralia	n=94 participan ts (n=73 males, n=21 females), age range:14- 15 years old.	n=3454, (n=1685 males, n=1675 females), age:14-15 years old.	To investigate sexual attraction and relations hips in autistic adolescents.	Parent-report ASD. No measures reported.	Quantitati ve design. Sexual attraction was a self- report by the child at 14– 15 years using an audio computer- assisted self- interview (ACASI)/ Sexual behaviour self- report/ Language functionin g was assessed by	X		Experience of Romantic Relationships Many autistic males (82%) and NT males (93%) reported heterosexual attractions only, and 9% of autistic males reported not knowing who they were attracted to compared to only 3% of NT males. Autistic females (around 50%) reported other than heterosexual attractions, compared to only 14% of NT females. 11% of autistic males compared to 15 % of NT males, and 20% of autistic females compared to 16% of NT females were currently in romantic relationships. None of the autistic males reported ever had sex compared to 5% of NT males, whereas 11% of autistic females reported having ever had sex, which results were not significantly different when compared to NT females (4%).

Autho r(s)	Cou ntry		aracteristics ge, Gender	Key aims of the study				Key Findings		
	,				Diagnosis reporting	Other measures	S R	C *		
		ASD group	TD group		measures		*			
						Peabody				
						Picture				
						Vocabular				
						y Test				
						Third				
						edition				
						(PPVT-III)				
						(Dunn and Dunn,				
						1997)/				
						Cognitive				
						functionin				
						g was				
						assessed				
						using the				
						Matrix				
						Reasoning				
						subtest				
						from the				
						Wechsler				
						Intelligenc				
						e Scale for				
						Children				
						IV (WISC-				
						IV)				

Autho r(s)	Cou ntry	Sample characteristics Number, Age, Gender		Key aims of the study	Measures used				Key Findings
					Diagnosis reporting	Other measures		C *	
		ASD group	TD group		measures	measures	*		
						(Wechsler , 2003).			

Pecor	USA	n=135	n= 161	То	The Autism	Quantitati	х	Experience of Romantic Relationships
a et		females,	females,	investigate	Spectrum	ve design.		Autistic females were found to display
al.		n=96	n=66	sexuality	Quotient	The		lower levels of sexuality interests than
(2019		males, M	males, M	and sexual	(AQ)—adult	Sexual		autistic males (72.6% versus 85.4%),
)		age=	age	experiences	version (AQ;	Behaviour		however, they displayed more sexual
						Scale,		experiences than autistic males (40%

Autho r(s)	Cou ntry	Sample characteristics Number, Age, Gender		Key aims of the study	Measures used				Key Findings
				-	Diagnosis reporting	Other measures	S R	C *	
		ASD group	TD group		measures		*		
		25.13 year s.	=22.16 ye ars.	of autistic females.	Baron-Cohen et al., 2001).	Version 3 (SBS-III, Hancock, 2017).			versus 21.9%). Autistic females reported having more sexual experiences which they later regretted than autistic males (65.5% versus 38.1%) and there was no significant difference between autistic and NT females reported on this outcome. Autistic females were also more likely to experience an unwanted sexual event than autistic males and NT females (60%, 33.3% and 34.6% respectively).
Visser et al. (2017 )	The Neth erla nds	n=94 participan ts, n=79 males (84%), n=15 females; age range 12-18 years.	n=94, n=63 males (66.3%), n=31 females.	To investigate the judgement of illustrated sexual situations by autistic adolescents.	Parent- reported ASD; for ASD severity the Autism Diagnostic Observation Schedule-2 (ADOS-2) (Lord et al., 2012) was used.	Quantitati ve design. The flag system (Frans and Franck, 2010) was used to judge sexual situations.	x		Experience of Sexuality Education Around 50% of the autistic adolescents provided appropriate judgements of the illustrated sexual situations. Severely inappropriate sexual behaviours have been judged appropriately, as according to the expert panel, by 89.2% of the autistic adolescents, appropriate sexual behaviours and slightly inappropriate sexual behaviours have been judged appropriately by 31.7% and 26.1% respectively by autistic adolescents. There was no significant difference found between the autistic group and the NT group in their judgments. No gender

Autho r(s)			Sample characteristics Number, Age, Gender		Measures used				Key Findings
					Diagnosis reporting	Other measures	S R	C *	
		ASD group	TD group	-	measures		*		
									differences have been performed due to the insufficient number of females in the autistic group.

\*SR=self-reports; \*C=caregivers' reports.

#### Table 3. Quantitative studies on the population with ADHD included in the systematic review.

Auth or(s)	Cou ntry	•	haracteristics Age, Gender	Key aims of the study	Measures used				Key Findings		
					Diagnosis reporting	Other measures	S R	C *			
		ADHD group	TD group		measures		*				
Gue ndel man et	USA	n=114 females, age range=1	n= 79 females, age range=17-	To investigate intimate partner	ADHD Diagnostic Status and Symptomatol	Quantitative design. The Health and Sexual	х		Experience of Romantic Relationships Childhood diagnosis of ADHD may predict heightened risk (19% in Transient ADHD, 37.3% in Persistent ADHD, versus 5.9% in		

Auth Cou or(s) ntry	•	characteristics , Age, Gender	Key aims of the study	Measures used				Key Findings	
,			_	Diagnosis reporting	Other measures	S R	C *		
	ADHD group	TD group		measures		*			
al. (201 6)	7-24 years, <i>M</i> age = 19.6 years.	24 years, <i>M</i> age = 19.6 years.	violence (IPV) in young females with ADHD.	ogy ADHD diagnostic status, categorized as present or absent (i.e., comparison participant), was derived from the Diagnostic Interview Schedule for Children (4th ed.; Shaffer et al., 2000) and the Swanson, Nolan, and Pelham Rating Scale (4th ed.; SNAP-IV; Swanson,	Behaviour Questionnaire (HSBQ)/ The Hot Sheet The 10-Year Family Information Packet (FIP)/Children' s Depression Inventory (CDI; Kovacs, 1992)/ the Wechsler Individual Achievement Test, Second Edition (WIAT- II; Wechsler, 2001)/Full- scale IQ (FSIQ) was obtained from the Wechsler			the comparison group) for physical IPV victimisation by young adulthood in females.	

Auth or(s)	Cou ntry		naracteristics Age, Gender	Key aims of the study	M	easures used	Key Findings		
	,		0 /		Diagnosis reporting	Other measures	S R	C *	
		ADHD	TD group		measures		*		
		group			1992).	Intelligence			
					Diagnostic subtype (e.g., ADHD- Combined vs. ADHD- Inattentive) was measured by Young Adult version,	Scale for Children (3rd ed.; Wechsler, 1991).			
					DISC-IV-YA; (Shaffer et al., 2000), The SNAP-IV, Externalizing Behavior Participants' primary caregivers completed the Child				
					Behavior Checklist				

Auth or(s)	Cou ntry					Key Findings			
					Diagnosis reporting	Other measures	S R	C *	
		ADHD group	TD group		measures		*		
					(CBCL; Achenbach, 1991).				
Halk ett and Hins haw (202 1)	USA	n= 140 girls (n=47 inattenti ve, n=93 combine d), age range=1 2.6-19.3 years ( <i>M</i> age=16.4 years).	n= 88 girls, age range=12.6- 19.3 years ( <i>M</i> age=16.5 years).	To investigate initial engagement in oral sex and sexual intercourse among adolescent girls with and without childhood Attention- Deficit/ Hyperactivity Disorder.	ADHD Diagnostic Status was determined from the Diagnostic Interview Schedule for Children (Shafer et al., 2000).	Quantitative design. The Social Relationships Interview (SRI) (Hinshaw et al., 2006).	x		Experience of Romantic Relationships Across all young females, 34.5% reported engaging in oral sex at least once (31.9% with either presentation of ADHD, versus 38.3% NT) and girls with ADHD initiated their oral sex experiences at a significantly younger age than NT peers (14.8 versus 15.9). Females with ADHD- Combined were significantly younger (14.3 versus 15.9) than NT females and females with ADHD-Inattentive (14.3 versus 15.6) when initiated their first oral sexual activity.
Mar gher io et al	USA	N=171 participa nts N=80.1% males		To investigate romantic relationships and sexual	Confirmed diagnosis by Self- reporting ADHD on	Quantitative design. 36-item Difficulties in Emotion	х		<i>Experience of Romantic Relationships</i> Many adolescents with ADHD (47%) reported experiencing at least one romantic relationship, with an average age of onset of 12.62 years and the

Auth or(s)	•			Key aims of the study	М	leasures used			Key Findings		
		ADHD	TD group	-	Diagnosis reporting measures	Other measures	S R *	C *			
		group	ID BLOOP		llicasules						
(202 0)		[n=134]; M age=14.9 6 years.		behaviour in adolescents with ADHD.	ADHD Rating Scale-5 Home version (ARS; DuPaul et al., 2016).	Regulation Scale (DERS; Gratz and Roemer, 2004)/Parent participants: 28-item DERS– Parent version (Bunford, Dawson et al., 2018)/ Social Skills Improvement System (SSIS; Gresham and Elliot, 2008)/ Adolescent Risk-Taking Questionnaire (ARQ; Gullone et al., 2000)/ Adolescents responded to a series of			average number of relationships was 4.22; the average duration of relationships was 6.73 months. 21% reported engaging in sexual activities and only 12% reported ever engaging in sexual intercourse. 62% of the young people who engaged in sexual intercourse reported not always using protection and 19% reported having unprotected sex "sometimes" or "often." On average, females had fewer sexual partners than males.		

Auth or(s)	Cou ntry	•	Sample characteristics Number, Age, Gender		Measures used				Key Findings	
.,				the study	Diagnosis reporting	Other measures	S R	C *		
		ADHD group	TD group		measures		*			
Rok each and Wie ner (201 8)	Can ada	n=30 participa nts, n=12 females, n=18 males; age range:13 -18 years.	n=28 participants , n=16 females, n= 12 males; age range: 13-18 years.	To investigate romantic relationships in adolescents with ADHD.	The Conners' Rating Scale– 3rd Edition (Conners, 2008) Parent, Teacher, and youth Self- Report long- forms were used to confirm the current manifestatio n of ADHD symptoms.	questions assessing their experiences with romantic and sexual relationships (designed specifically for this study). Quantitative design. Wechsler Abbreviated Scale of Intelligence (WASI) (Wechsler, 1999)/ The Health and Sexual Behaviors Questionnaire (HSBQ; Flory et al., 2006)/	X		Experience of Romantic Relationships Adolescents with ADHD did not differ from NT peers on overall abuse factor (F (1, 41) = 1.59, p = .22, $\eta$ 2 = .04,) nor negative interactions (conflict, antagonism, criticism) (F (1, 40) = 1.14, p = .29, $\eta$ 2 = .03). Compared to NT group, adolescents with ADHD reported experiencing more romantic relationships (Means=3.50 [males with ADHD), Means=2.33 [females with ADHD] versus Means=2.09 [NT males], Means=1.75 [NT females]), and having more romantic partners (Means=4.00 [males with ADHD),	

Auth or(s)	Cou ntry	•	haracteristics Age, Gender	Key aims of the study	Measures used			Key Findings	
					Diagnosis	Other	S	С	
					reporting	measures	R	*	
		ADHD	TD group		measures		*		
		group							
						The Networks			Means=4.50 [females with ADHD] versus
						of			Means=1.60 [NT males], Means=2.00 [NT
						Relationships			females]). Females with ADHD reported
						Inventory–			having much shorter lasting romantic
						Behavioral			relationships than NT females and shorter
						Systems			than males with ADHD (Means=6.33,
						Version (NRI-			Means=14.88, Means= 8.75 respectively).
						BSV; Furman			Males with ADHD reported having a
						and			sooner intercourse debut than NT males
						Buhrmester,			(Means=14.50 versus Means=16.40),
						2009)/ The			there was not much difference between
						Conflict in			the females with ADHD and NT
						Adolescent			(Means=15.50 versus Means=15.33).
						Dating			Adolescents with ADHD had nearly
						Relationships			double the number of lifetime sexual
						Inventory			partners than NT group (Means=4.00
						(CADRI; Wolfe			[males with ADHD], Means=1.60 [NT
						et al. <i>,</i> 2001).			males], Means=4.50 [females with ADHD],
									Means= 2.00 [NT females]).
Van	USA	Phase 2:	Phase 1:	То	ADHD Self-	Quantitative	х		Experience of Romantic Relationships
derD		n=39	n=172	investigate	Report Scale	design. The			In both groups, ADHD symptoms were
rift		participa	participants	detrimental	(ASRS;	Exit Voice			linked with greater challenges with
et		nts,	<i>,</i> n=55	effect of	Kessler et al.,	Loyalty			romantic relationships and less
al.		n=20	males,	inattention	2005).	Neglect (EVLN)			constructive responses to problems

Auth or(s)	Cou ntry	•	Sample characteristics Number, Age, Gender			Measures used			Key Findings		
.,	·				Diagnosis reporting	Other measures	S R	C *			
		ADHD group	TD group		measures		*				
(201 9)		males, n=18 females; age range: 18-23 years, <i>M</i> = 18.9 years.	n=117 females; age range:18-28 years, <i>M</i> age= 18.8 years.	and hyperactivity -impulsivity on romantic relationship maintenance		Accommodati on scale (Rusbult et al., 1991); The Attentiveness to Alternatives Index (Miller, 1997); A measure of susceptibility to infidelity (Buss & Shackelford, 1997).			solving within the relationships. Inattentive symptoms were significantly associated with destructive accommodation (r = .39, p < .01), positively associated with interest in alternatives (r = .30 [ADHD sample]; r = .31 [TD sample]) and susceptibility to infidelity (r = .23 [ADHD sample]; r = .16 [NT sample]); negatively associated with constructive accommodation (r = $11$ [ADHD sample]; r = $16$ [NT sample]) and commitment (r = $09$ [ADHD sample]; r = 17 [NT sample]). Hyperactive-impulsive symptoms were positively associated with destructive accommodation (r = .23 [ADHD sample]; r = .27 [NT sample]) and susceptibility to infidelity (r = .05 [ADHD sample]; r = .11 [NT sample]); and negatively associated with commitment (r = $09$ [ADHD sample]; r = $30$ [TD sample]). There was a substantial difference between the groups (ADHD and NT) in associations between hyperactivity-impulsivity and		

Auth or(s)	Cou ntry	•	haracteristics Age, Gender	Key aims of the study	I	Measures used			Key Findings
					Diagnosis reporting	Other measures	S R	C *	
		ADHD TD group measures *							
		group							constructive accommodation (r = .18
									[ADHD sample]; r =02 [TD sample]) and between hyperactivity-impulsivity and dissolution consideration (r =03 [ADHD sample]; r = .26 [NT sample]). No gender differences were reported.

\*SR=self-reports; \*C=caregivers' reports.

Appendix 2: Table 6: Risk of Bias (Study 1: Systematic Literature Review)

Source	Sample selection	Diagnosis of the di	Contr ol group inclusi on	Generalisability of findings				
	Majority of White/Cau casians (80+%)	A diagnosis of the neurodevelopm ental disorders was self- reported, or the caregiver reported	The researchers carried out either a screening and/or diagnostic assessment		Limited (mostly 80+%) to the male populati on	Limited (mostly 80+%) to the female populati on	*Gener alisable to the wider popula tion	as
**Brilhant e et al. (2021)/Bra zil	No informatio n provided	Yes	No	No	*N/A	*N/A	*N/A	М
Bush (2019)/US	Yes	Yes	Yes	Yes	No	Yes	No	M
Bush (2021)/US	Yes	Yes	Yes	No	No	Yes	No	М
**Cheak- Zamora et al. (2019)/US	Yes	Yes	Yes	No	*N/A	*N/A	*N/A	M
**Dewinte r et al.(2017b)/	No informatio n provided	No	Yes	No	*N/A	*N/A	*N/A	M

The Netherland s								
Dewinter et al. (2016a)/ The Netherland s	No informatio n provided	No	Yes	Yes	Yes	No	No	M
Dewinter et al. (2016b)/ The Netherland s	No informatio n provided	No	Yes	No	Yes	No	No	M
Dewinter et al. (2015)/ The Netherland s	No informatio n provided	No	Yes	Yes	Yes	No	No	M
Fernandes et al. (2017)/ Sweden	No informatio n provided	No	Yes	No	Yes	No	No	M
Guendelm an et al. (2016)/US	No	No	Yes	Yes	No	Yes	No	L
Halkett and	No	No	Yes	Yes	No	Yes	No	L

Hinshaw (2021)/US								
Hancock et al. (2020)/ Australia	No	Yes	Yes	Yes	No	No	No	L
Hannah and Stagg (2016)/ England	No informatio n provided	No information was provided on how participants' diagnosis was obtained, the only information available is that participants had a diagnosis of Autism Spectrum Disorder (ASD)	No information was provided on how participants' diagnosis was obtained	Yes	No	No	No	M
Hartmann et al. (2019)/ US	No	No	Yes	No	No	No	No	L
Holmes et al. (2020a)/US	Yes	Yes	No	No	No	No	No	M
Holmes et al. (2019)/ US	Yes	Yes	No	No	No	Yes	No	М

Holmes et al.(2016a)/ US	Yes	Yes	No	No	Yes	No	No	М
Holmes et al. (2016b)/U S	Yes	Yes	No	No	Yes	No	No	M
Joyal et al. (2021)/ Canada	Yes	Yes	No	Yes	No	No	No	M
Kenny et al. (2021)/ US	No	Yes	No	No	No informati on provided	No informati on provided	No	M
Kotzé et al. (2017)	No informatio n provided	No	Yes	No	Yes	No	No	M
**Mackin et al. (2016)/US	Yes	Yes	No	No	*N/A	*N/A	*N/A	M
Margherio et al (2020)/US	No	Yes	Yes	No	Yes	No	No	M
**Masoudi at al. (2022)	No	No	Yes	No	*N/A	*N/A	*N/A	L
May et al. (2017)/ Australia	No informatio n provided	Yes	No	Yes	No	No	No	М

***Palerm o and Bogaerts (2015)/The Netherland S	*N/A	No information was provided on how the participant's diagnosis was obtained, the only information available is that the participant had a diagnosis of Autism Spectrum Disorder (ASD)	No information was provided on how the participant's diagnosis was obtained, the only information available is that the participant had a diagnosis of Autism Spectrum Disorder (ASD)	*N/A	*N/A	*N/A	*N/A	N/ A
Pecora et al. (2019)/ US	No informatio n provided	Yes	Yes	Yes	No	No	No	L
Rokeach and Wiener (2018)/Can ada	No informatio n provided	Yes	Yes	Yes	No	No	No	L
**Teti et al. (2019)/US	Yes	Yes	Yes	No	*N/A	*N/A	*N/A	M
VanderDrif t et al. (2019)/US	Yes	Yes	Yes	Yes	No	No	No	L

Visser et	No	No	Yes	Yes	No	No	No	L
al. (2017)/	informatio							
The	n provided							
Netherland								
S								

\* Generalisable to the wider population was assessed as "yes" when statistical power and sample size analysis were provided in the research to justify the sample size, or if, based on the validity of the findings, the researchers clearly justified their generalisability.

\*N/A was applied to all qualitative studies including case studies in the "generalisability of findings" column since they are not considered generalisable and it is not their purpose to be.

Additionally, \*N/A was also applied in a case study in the "Sample selection" and "Control group" columns.

Risk of bias for quantitative studies: Low (L) (0-2); Moderate (M) (3-5); High (H) (6-7).

\*\*Risk of bias for qualitative studies: Low (L) (0-1); Moderate (M) (2-3); High (H) (4-5).

\*\*\* A case study, risk of bias not applicable.

#### **Appendix 3: Questionnaires for the Pilot Study**

#### **Questionnaire for Educational Professionals**



### Questionnaire

This is an anonymous questionnaire.

Please do not write your name, or any identifying information in your responses.

Please ensure that you have read the *Participant Information Sheet* before completing this

questionnaire as it explains the purpose of this research.

### By completing and returning this questionnaire you indicate your consent to participate in this research.

This questionnaire contains questions about romantic relationships, sexuality, sexual behaviours, *sexuality education*\* and sexual knowledge of your students who may be neurotypical (TD) (have not got any neurodevelopmental conditions) or may have autism spectrum disorders (ASD) and/or attention-deficit/hyperactivity disorder (ADHD). For the purpose of this research, the researcher has adopted the terminology from the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) (APS,2013) and will be using it to throughout the questionnaire.

Some questions may not apply to you, but in the interest of good research it is beneficial to ask these questions.

If you would like to receive a paper copy of the questionnaire, please send an email to: xxx@edu.salford.ac.uk

\*"Comprehensive sexuality education covers the same topics as sex education but also includes issues such as relationships, attitudes towards sexuality, sexual roles, gender relations and the social pressures to be sexually active, and it provides information about sexual and reproductive health services." (Leung et al., 2019).

#### 1. What is the age range of the students that you teach?

13-18 years old

18-25 years old

Other (please give the range)

## 2. Do you have experience teaching students with the following conditions? (tick one or more)

Autism Spectrum Disorder (ASD) (this may include, Asperger's Disorder, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder Not Otherwise Specified)

Attention-Deficit/Hyperactivity Disorder (ADHD)

ASD co-occurring with ADHD

I teach neurotypical (TD) students (they have not been diagnosed with any neurodevelopmental conditions)

#### 3. What type of school/college are your students attending?

Mainstream school/college

Mainstream school/college, with extra support from teaching support staff for students with neurodevelopmental conditions such as autism and attention-deficit/hyperactivity disorder

Special needs school/college (non-residential)

Special needs boarding school/college/residential special school/college

Other: \_\_\_\_\_

4. If you have been teaching students with autism spectrum disorders and/or attention-deficit/hyperactivity disorder; Approximately, in total, for how many years have you been teaching students with autism spectrum disorders and/or attentiondeficit/hyperactivity disorder? (please give the number)

5. If you have been teaching students with autism spectrum disorders and/or attention-deficit/hyperactivity disorder; On average, what is the total number of students with autism spectrum disorders and/or attention-deficit/hyperactivity disorder that you teach across all year groups from September to September (please give the number)

6. Does your school/college provide students, in the following categories, with any interventions or educational support sessions to improve their social communication skills? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes, they receive the same support provided to all students where I teach				

Yes, they		
receive		
additional		
support to		
what is		
provided to		
all students		
where I teach		
No		
I don't know		
I'd prefer not		
to say		

6a. If where you teach does offer additional support for students with autism spectrum disorder and/or attention-deficit/hyperactivity disorder to help improve their social skills, what type of additional support is offered? (give as much detail with examples as possible per category)

Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactivity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactivity Disorder
I don't know	I don't know	I don't know
I'd prefer not to say	I'd prefer not to say	I'd prefer not to say
Not applicable	Not applicable	Not applicable

6b. If where you teach does not offer additional support for students with autism spectrum disorder and/or attention-deficit/hyperactivity disorder to help improve their social skills, do you think additional support on this particular topic would be beneficial or helpful? (tick one response per category)

Yes No I don't know I'd prefer not to say	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperacti vity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperacti vity Disorder
Not applicable			

6c. If you think that additional support for students with autism spectrum disorder and/or attention-deficit/hyperactivity disorder to help improve their social communication skills would be beneficial, what type of interventions or support would you recommend for students in the following categories? (give as much detail with examples as possible per category)

Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactivity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactivity Disorder
I don't know	I don't know	I don't know
I'd prefer not to say	I'd prefer not to say	I'd prefer not to say
Not applicable	Not applicable	Not applicable

6d. In your experience, why do you think is it important to provide additional interventions/support for students with autism spectrum disorder and/or attention-

#### deficit/hyperactivity disorder to help improve their social communication skills? (give

Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactivity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactivity Disorder
l don't know	I don't know	I don't know
I'd prefer not to say	I'd prefer not to say	I'd prefer not to say
Not applicable	Not applicable	Not applicable

as much detail with examples as possible, per category)

#### 7. Have your students, in the following categories, ever talked to you about their

#### dating or romantic experiences? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
l don't remember				
l'd prefer not to say				

8. Have your students, in the following categories, ever talked to you about encountering any challenges while dating or being in a romantic relationship? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
l don't				
remember				
I'd prefer not				
to say				

8a. If so, what were the challenges your students, in the following categories,

encountered? (give as much detail with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactiv ity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactiv ity Disorder
l don't know	I don't know	I don't know	I don't know

| I'd prefer not to |
|-------------------|-------------------|-------------------|-------------------|
| say               | say               | say               | say               |

9. Do you have any concerns about your students, in the following categories, dating or becoming romantically involved with another person? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
l don't remember				
I'd prefer not to say				

#### 9a. If so, what are your concerns for students in the following categories? (give as

much detail with examples as possible per category)

No		Current and the	
Neurotypical	Students with	Students with	Students with
students	Autism	Attention-	Autism Spectrum
(students with no	Spectrum	Deficit/Hyperactiv	Disorder
diagnosis of ASD	Disorder	ity Disorder	co-occurring with
or ADHD)		,	Attention-
			Deficit/Hyperactiv
			ity Disorder

I don't know	l don't know	l don't know	I don't know
I'd prefer not to			
say	say	say	say

10. In your experience, do you have any concerns about the abilities of your students, in the following categories, to recognise that someone likes/is attracted to them or not? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
l don't remember				
l'd prefer not to say				

11. In your experience, do you have any concerns about your students', in the following categories, abilities to recognise whether their dating or romantic relationship is healthy or not? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				

l'd prefer not		
to say		

#### 11a. If so, what types of concerns do you have about students in the following

#### categories? (give as much detail with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactiv ity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactiv ity Disorder
I don't know	l don't know	I don't know	l don't know
I'd prefer not to	I'd prefer not to	I'd prefer not to	I'd prefer not to
•	•	•	•
say	say	say	say

12. Do you think that students, in the following categories, may be more vulnerable, than other people their age, to being abused by another person/their partner while dating/being in a romantic relationship? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				

No		
I don't know		
I'd prefer not		
to say		

12a. Typically, what types of abuse by another person/a partner, might your

students, in the following categories, be more vulnerable to? (give as much detail

#### with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactiv ity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactiv ity Disorder
I don't know	I don't know	I don't know	I don't know
I'd prefer not to	I'd prefer not to	I'd prefer not to	I'd prefer not to
say	say	say	say

13. In your experience, typically, what barriers may be preventing some of your students, in the following categories, from getting involved in dating or romantic relationships? (tick one response per category)

I			1	
	Neurotypical	Students	Students	Students
	students	with	with	with Autism
	(students	Autism	Attention-	Spectrum
	with no	Spectrum	Deficit/Hyper	Disorder
	diagnosis of	Disorder	activity	co-occurring
	ASD or		Disorder	with
	ADHD)			Attention-
				Deficit/Hyper
				activity
				Disorder

	1	[	
Contact with			
others may			
be too tiring			
for them			
They haven't			
yet met the			
right person			
they would			
like to			
date/be with			
They worry			
they may not			
be able to			
fulfil another			
person's/thei			
r partner's			
expectations			
They don't			
know where			
they could			
meet a			
potential			
dating			
candidate, or			
potential			
partner			
They don't			
understand			
how dating,			
or a romantic			
relationship			
works, or			
how to			
behave			
during			
dating, or			
while in a			
romantic			
relationship			
They don't			
like the			
physical			
contact			
which dating,			
or a romantic			
relationship			
may involve			

They just don't feel the need to date, or be in a romantic relationship Other (give examples)		
Nono		
None I don't know		
l'd prefer not		
to say		

14. In your experience, do some of your students, in the following categories, fear

#### dating or romantic relationships? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

#### 14a. If so, what may students, in the following categories, fear (what challenges,

#### barriers may they face)? (give as much detail with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactiv ity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactiv ity Disorder

l don't know	I don't know	l don't know	l don't know
I'd prefer not to			
say	say	say	say

15. In your experience, do you have any concerns about your students, in the following categories, exhibiting behaviours that may be perceived as inappropriate when trying to show another person that they like them/are attracted to them? (tick one response per category

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

15a. If so, what are your concerns for students in the following categories? (give as

much detail with examples as possible per category)

Neurotypical	Students with	Students with	Students with
students	Autism	Attention-	Autism Spectrum
(students with no	Spectrum	Deficit/Hyperactiv	Disorder
diagnosis of ASD	Disorder	ity Disorder	co-occurring with
or ADHD)			Attention-
			Deficit/Hyperactiv
			ity Disorder

I don't know	l don't know	l don't know	I don't know
I'd prefer not to			
say	say	say	say

16. Do you think your students, in the following categories, may be more vulnerable, than other people their age, to experiencing cyber-bullying when online dating? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not to say				

16a. If yes, in your experience, why might students, in the following categories, be more vulnerable to cyber-bullying than other people their age, when online dating? (give as much detail with examples as possible per category)

Neurotypical	Students with	Students with	Students with
students	Autism	Attention-	Autism Spectrum
(students with no	Spectrum	Deficit/Hyperactiv	Disorder
diagnosis of ASD	Disorder	ity Disorder	co-occurring with
or ADHD)			Attention-
			Deficit/Hyperactiv
			ity Disorder

l don't know	I don't know	l don't know	l don't know
I'd prefer not to			
say	say	say	say

17. Do you think that students, in the following categories, may be more vulnerable, than other people their age, to sexual grooming when online dating? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

17a. If yes, in your experience, why might students, in the following categories, be

more vulnerable to sexual grooming than other people their age, when online dating?

(give as much detail with examples as possible per category)

Neurotypical	Students with	Students with	Students with
students	Autism	Attention-	Autism Spectrum
(students with no	Spectrum	Deficit/Hyperactiv	Disorder
diagnosis of ASD	Disorder	ity Disorder	co-occurring with
or ADHD)			Attention-
			Deficit/Hyperactiv
			ity Disorder

l don't know	I don't know	l don't know	l don't know
I'd prefer not to			
say	say	say	say

#### 18. Do you have any concerns regarding your students, in the following categories,

#### dating in general? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
l'd prefer not to say				

#### 18a. If yes, what are your concerns for students in the following categories? (give as

#### much detail with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactiv ity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactiv ity Disorder

I don't know	I don't know	I don't know	l don't know
I'd prefer not to			
say	say	say	say

#### 19. Do you have any concerns about your students, in the following categories,

learning about sexuality, dating and romantic relationships from the Internet? (tick

#### one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

#### 19a. If yes, what are your concerns for students in the following categories? (give as

#### much detail with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactiv ity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactiv ity Disorder

I don't know	l don't know	l don't know	l don't know
I'd prefer not to			
say	say	say	say

# 20. Have your students, in the following categories, been taught the following aspects of sexuality at your school/college? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)		Students with Autism Spectrum Disorder		Students with Attention- Deficit/Hypera ctivity Disorder			Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperacti vity Disorder				
	Y e s	N O	l do n't kn	Y e s	N O	l do n't kn	Y e s	N O	l do n't kn	Y e s	N O	l don' t kno w
A. Using contrac eption (e.g., condo ms, contrac eptive pill, etc.)			OW			ow			ow			W
B. Having tests for sexuall Y												

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(STI's)							
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abuse								
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21. Is there anything else you think your students, in the following categories, should learn about sexuality, dating and romantic relationships, which they have not learnt yet at your school/college? (give as much detail with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactiv ity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactiv ity Disorder
I don't know	l don't know	I don't know	I don't know
I'd prefer not to	I'd prefer not to	I'd prefer not to	I'd prefer not to
say	say	say	say

#### 22. In your experience, do you think your students, in the following categories, have

#### good knowledge about sexual health? (tick one response per category)

Neurotypical students (students with no diagnosis of ASD or	l Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with
ADHD)		Disorder	Attention- Deficit/Hyper

		activity Disorder
Yes		
No		
I don't know		
I'd prefer not		
to say		

23. Is there any type of technology-based support (e.g., particular applications, devices, videos, etc.) that, in your opinion, would help students, in the following categories, learn about sexuality, dating and romantic relationships? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

23a. If yes, what technology-based support (e.g., particular applications, devices, videos, etc.) would you recommend and why for students in the following categories to learn about sexuality, dating and relationships? (give as much detail with examples as possible per category)

Neurotypical	Students with	Students with	Students with
students	Autism	Attention-	Autism Spectrum
(students with no	Spectrum	Deficit/Hyperactiv	Disorder
diagnosis of ASD	Disorder	ity Disorder	co-occurring with
or ADHD)			Attention-
			Deficit/Hyperactiv
			ity Disorder

l don't know	l don't know	l don't know	l don't know
I'd prefer not to			
say	say	say	say

23b. What other methods of delivery (e.g., face-to-face, individual support, group sessions, etc.) of sexuality, dating and relationships education would you recommend for students in the following categories? (give as much detail with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactiv ity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactiv ity Disorder
I don't know	l don't know	l don't know	l don't know
I'd prefer not to	I'd prefer not to	I'd prefer not to	I'd prefer not to
say	say	say	say

# 24. What topics does the current sexuality education at your school/college cover for all students and who teaches it?

I don't know

I'd prefer not to say

24a. Are there any differences in this sexuality education for students in the following categories? (tick one response per category)

Yes (give examples)	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
No				
I don't know				
l'd prefer not				
to say				

#### 25. How often do sexuality education lessons take place at your school/college?

Once a month

Twice a month

Once a week

Twice a week

Other (give details)

I don't know

I'd prefer not to say

26. In your experience, do you think that the current sexuality education at your school/college is appropriate for students in the following categories? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

#### 26a. If not, why not? (give as much detail with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactiv ity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactiv ity Disorder

l don't know	I don't know	l don't know	I don't know
I'd prefer not to			
say	say	say	say

26b. If not, how could the current sexuality education at your school/college be improved, in your opinion, for each of the following categories? (give as much detail with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperactiv ity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperactiv ity Disorder
l don't know	l don't know	l don't know	I don't know
I'd prefer not to	I'd prefer not to	I'd prefer not to	I'd prefer not to
say	say	say	say

#### 27. Is sexuality education tailored specifically for students, in the following

#### categories, at your school/college? (tick one response per category)

Neurotypical	Students	Students	Students
students	with Autism	with	with Autism
(students	Spectrum	Attention-	Spectrum
with no diagnosis of	Disorder	Deficit/Hyper	Disorder

	ASD or ADHD)	activity Disorder	co-occurring with Attention- Deficit/Hyper activity Disorder
Yes			
No			
I don't know			
l'd prefer not to say			

### 28. Do you think it would be beneficial to tailor sexuality education specifically for

#### students in the following categories? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
l'd prefer not				
to say				

# 28a. If yes, why? /If not, why not? (give as much detail with examples as possible per category)

#### Neurotypical Students with Students with Students with students Autism Attention-Autism Spectrum (students with no Spectrum Deficit/Hyperactiv Disorder diagnosis of ASD Disorder ity Disorder co-occurring with or ADHD) Attention-Deficit/Hyperactiv ity Disorder

I don't know	I don't know	I don't know	I don't know
I'd prefer not to say	I'd prefer not to say	I'd prefer not to say	I'd prefer not to say

29. Does your school/college collaborate with parents/carers with regards to sexuality education for their children in the following categories? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
l'd prefer not to say				

#### 29a. If yes, what are the benefits of this collaboration for students in the following

categories? (give as much detail with examples as possible per category)

Neurotypical	Students with	Students with	Students with
students	Autism	Attention-	Autism Spectrum
(students with no	Spectrum	Deficit/Hyperactiv	Disorder
diagnosis of ASD	Disorder	ity Disorder	co-occurring with
or ADHD)			Attention-
			Deficit/Hyperactiv
			ity Disorder

I don't know	I don't know	l don't know	l don't know
l'd prefer not to	I'd prefer not to	I'd prefer not to	I'd prefer not to
say	say	say	say

30. Do you feel your school has equipped you with the necessary skills and materials to teach students, in the following categories, about sexuality, dating and romantic relationships? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

31. Have you ever received any support for how to speak most appropriately and effectively to students, in the following categories, about sexuality, dating and romantic relationships? (tick one response per category)

Neurotypical	Students	Students	Students
students	with Autism	with	with Autism
(students	Spectrum	Attention-	Spectrum
with no	Disorder	Deficit/Hyper	Disorder
diagnosis of		activity	co-occurring
		Disorder	with

	ASD or		Attention-
	ADHD)		Deficit/Hyper
			activity
			Disorder
Yes			
No			
I don't know			
I'd prefer not			
to say			

#### 31a. If yes, what type of support have you received for each of the following

#### categories? (give as much detail with examples as possible per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyperacti vity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperacti vity Disorder
l don't know	I don't know	I don't know	l don't know
I'd prefer not to	I'd prefer not to	I'd prefer not to	I'd prefer not to
say	say	say	say

#### 31b. If yes, who provided this support for each of the following categories? (tick one

#### response per category)

Neurotypical	Students with	Students with	Students with
students	Autism	Attention-	Autism Spectrum
(students with no	Spectrum	Deficit/Hyperactiv	Disorder
diagnosis of ASD	Disorder	ity Disorder	co-occurring with
or ADHD)			Attention-
			Deficit/Hyperactiv
			ity Disorder

l don't know	l don't know	l don't know	l don't know
I'd prefer not to			
say	say	say	say

### 31c. Do you feel the support was beneficial for each of the following categories? (tick

#### one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
l'd prefer not				
to say				

### 31d. If yes, in what way for each of the following categories? / If not, why for each of

the following categories? (give as much detail with examples as possible per

#### category)

Neurotypical	Students with	Students with	Students with
students	Autism	Attention-	Autism Spectrum
(students with no	Spectrum	Deficit/Hyperacti	Disorder
diagnosis of ASD	Disorder	vity Disorder	co-occurring with
or ADHD)			Attention-
			Deficit/Hyperacti
			vity Disorder

I don't know	l don't know	l don't know	l don't know
I'd prefer not to			
say	say	say	say

32. What kind of support would be beneficial for you to make you feel (more) competent about how to speak to/teach students, in the following categories, about sexuality, dating and romantic relationships? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hype ractivity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hype ractivity Disorder
The school/colleg e				
GP/Medical professional (e.g., nurse)				
Counsellor				
Therapist				
Psychologist				
Psychiatrist Student's family				
Peer feedback				
The Internet				

Technology based (videos, mobile device applications)		
Other (give examples)		
None		
I don't know		
I'd prefer not		
to say		

If there is anything else you think might be relevant for the study and you would like to share with us, please leave it here.

Also, if there are any questions not asked in this questionnaire and you may deem important, please write them here.

Leung, H., Shek, D. T., Leung, E., & Shek, E. Y. (2019). Development of contextually relevant sexuality education: lessons from a comprehensive review of adolescent sexuality education across cultures. *International journal of environmental research and public health*, *16*(4), 621.)

American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. Arlington, VA: American Psychiatric Association.

# THANK YOU VERY MUCH FOR TAKING TIME TO COMPELTE THIS QUESTIONNAIRE.



Exploring Sexuality Knowledge and Experience of Romantic Relationships in Adolescents and Young Adults with Autism Spectrum Disorder, Attention-Deficit/Hyperactivity Disorder, and Autism Spectrum Disorder co-occurring with Attention-Deficit/Hyperactivity Disorder. Perspectives from Caregivers, Educational Professionals and Adolescents and Young Adults

#### **Participant Debrief Sheet**

Thank you for completing this questionnaire. We hope that you have found it interesting and have not been upset by any of the questions. However, if any part(s) of this questionnaire has made you feel upset or distressed in any way and you would wish to speak to someone about it, you may contact the independent <u>organisations listed</u> <u>below:</u>

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#### Mental Health UK

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Tel. Nr 0121 522 7007 (10am-4pm Mon-Fri (excluding bank holidays)

#### Brook : YOUR FREE & CONFIDENTIAL SEXUAL HEALTH & WELLBEING EXPERTS

Brook – Healthy lives for young people

• Victim Support call 0800 123 6600 / online chat (all-age)

#### Relate (the relationship people)

Help for Children & Young People – Family & Relationship Help | Relate

Contact us | Relate

**SupportLine** is particularly aimed at those who are isolated, at risk, vulnerable and victims of any form of abuse.

Helpline: 01708 765200 (hours vary so ring for details)

Admin: 01708 765222

**Email:** info@supportline.org.uk

#### Manchester City Council: Sexual Health

Sexual health | Sexual health | Manchester City Council

To report abuse, neglect, or a vulnerable person at risk:

0161 234 5001

#### Fresh4Manchester

Home - Fresh4Manchester

#### CALL US NOW ON **0161 701 1555**

#### National Autistic Society. Manchester:

https://www.autism.org.uk/services/england/manchester.aspx

email: supportercare@nas.org.uk.

tel.nr: 0808 800 4104. or: 0808 800 1050.

#### CABA Helping People with Autism:

https://www.caba.org.uk/help-and-guides/information/support-people-autism email: enquiries@caba.org.uk

tel.nr: +44 (0) 1788 556 366

#### UKAP The UK ADHD Partnership:

https://www.ukadhd.com/what-is-ukap.htm

email: addup@addup.co.uk

#### MADDchester:

http://www.maddchester.com/

email: contact@maddchester.com

#### STOP IT NOW; Helping Prevent Child Sexual Abuse:

https://www.stopitnow.org.uk/

Tel.nr: 0808 1000 900

STOP IT NOW is a charity in the UK which offers information and support for individuals who may have experience of illegal online sexual behaviour involving children (e.g., any type of pornography) and who would like to receive support for how to change these behaviours. The charity also provides support for families and friends and of these individuals; additionally, it helps people cope with difficult emotions, and the professionals who work with these groups.

#### Further information and contact details:

Should you require any further information please contact the primary researcher:

XXXX, XXXX@edu.salford.ac.uk

If you are interested in participating in semi-structured interviews or focus groups as a follow-up, please leave your email address here. Thank you.

**Questionnaire for Caregivers** 



### Questionnaire

This is an anonymous questionnaire.

Please do not write your name or any identifying information in your responses.

Please ensure that you have read the *Participant Information Sheet* before completing this

questionnaire as it explains the purpose of this research.

### By completing and returning this questionnaire you indicate your consent to participate in this research.

This questionnaire contains questions about romantic relationships, sexuality, sexual behaviours and *sexuality education*\* and sexual knowledge of your child who may be neurotypical (TD) (have not got any neurodevelopmental conditions) or may have autism spectrum disorders (ASD) and/or attention-deficit/hyperactivity disorder (ADHD). For the purpose of this research, the researcher has adopted the terminology from the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) (APA,2013); and will be using it to throughout the questionnaire.

Some questions may not apply to you, but in the interest of good research it is beneficial to ask these questions.

If you would like to receive a paper copy of the questionnaire, please send an email to:

xxx@edu.salford.ac.uk

\*"Comprehensive sexuality education covers the same topics as sex education but also includes issues such as relationships, attitudes

towards sexuality, sexual roles, gender relations and the social pressures to be sexually active, and it provides information about sexual and reproductive health services." (Leung et al., 2019).

If you have more than one child with autism spectrum disorders and/or attentiondeficit/hyperactivity disorder, please choose ONLY one of your children as your focus on this questionnaire. If you wish to, you can complete another questionnaire about your other child.

1. Your child's age (in years and months, e.g., 15 years and 3 months):

2. Your child's gender:

Male

Female

Other:\_\_\_\_\_

Prefer not to say

3. Your child's ethnicity:

White

- English / Welsh / Scottish / Northern Irish / British
- Irish
- Gypsy or Irish Traveller
- Any other White background

#### Mixed / Multiple ethnic groups

- White and Black Caribbean
- White and Black African
- White and Asian
- Any other Mixed / Multiple ethnic background

#### Asian / Asian British

- Indian
- Pakistani
- Bangladeshi
- Chinese
- Any other Asian background

#### Black / African / Caribbean / Black British

- African
- Caribbean
- Any other Black / African / Caribbean background

#### Other ethnic group

- Arab
- Any other ethnic group

## 4. Which of the following condition(s) has your child has been diagnosed with? (tick one or more)

Autism Spectrum Disorder (this may include, Asperger's Disorder, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder Not Otherwise Specified) (ASD)

Attention-Deficit/Hyperactivity Disorder (ADHD)

ASD co-occurring with ADHD

My child is neurotypical (TD) (they have not been diagnosed with any neurodevelopmental condition)

5. If you have a child diagnosed with (a) neurodevelopmental condition(s); How old were they when first diagnosed with this condition/these conditions?

6. What is the highest education level your child has completed (e.g., year 10, GCSEs)?

I'd prefer not to say

# 7. What type of school/college does your child attend currently/ has your child attended most recently?

Mainstream school/college

Mainstream school/college and, also, they have/had help from teaching support staff for students with neurodevelopmental conditions such as autism and attentiondeficit/hyperactivity disorder

Special needs school/college (non-residential)

Special needs boarding school/college/residential special school/college

Other: \_\_\_\_\_

I'd prefer not to say

8. Has your child ever been provided with any additional interventions or educational support sessions within or outside their school/college to improve their social communication skills?

Yes

No

I don't know

I'd prefer not to say

#### 8a. If yes, what type of additional support have they received?

I don't know

I'd prefer not to say

#### 8b. If yes, who provided them with the additional support?

The school/college

GP/Medical professional (e.g., nurse)

Counsellor

Therapist

Psychologist

Psychiatrist

Family

Peer feedback

The Internet

Technology based (videos, mobile device applications)

Other (give examples)

I don't know

I'd prefer not to say

8c. If not, do you feel it would be beneficial for your child to be provided with additional interventions or support, which would enhance their social communication skills?

Yes

No

I don't know

I'd prefer not to say

8d. What type of interventions or support would you recommend for your child and why?

I don't know

I'd prefer not to say

#### 9. Has your child ever dated someone or been in a romantic relationship?

Yes, in the past

Yes, they are currently dating someone/are currently in a romantic relationship

No, they have not

I don't know

I'd prefer not to say

10. Has your child ever talked to you about their dating or romantic relationship experiences?

Yes

No

I don't remember

I'd prefer not to say

### 11. Has your child ever talked to you about any challenges they have encountered while dating or being in a romantic relationship?

Yes

No

I don't remember

I'd prefer not to say

#### 11a. If so, what were the challenges they had encountered?

I don't know

I'd prefer not to say

12. Do you have any concerns about your child dating or becoming romantically involved with another person in the future (if they are not dating or are not romantically involved with anyone yet)?

Yes

No

I don't know

I'd prefer not to say

#### 12a. If so, what are your concerns?

I don't know

I'd prefer not to say

13. Do you have any concerns about your child's ability to recognise that someone likes/is attracted to them or not?

Yes

No

I don't know

I'd prefer not to say

13a. If so, what are your concerns?

I'd prefer not to say

### 14. Do you have any concerns about your child's ability to recognise whether their dating or romantic relationship is healthy or not?

Yes

No

I don't know

I'd prefer not to say

14a. If so, what are your concerns?

I'd prefer not to say

15. Do you think that your child may be more vulnerable, than other people their age, to being abused by another person/their partner while dating/being in a romantic relationship?

Yes

No

I don't know

I'd prefer not to say

15a. What types of abuse by another person/a partner, might your child be more vulnerable to?

I don't know

I'd prefer not to say

## 16. What barriers do you think may be preventing (or will prevent) your child from getting involved in dating or romantic relationships?

Contact with others may be too tiring for them

They haven't yet met the right person they would like to date/be with

They worry they may not be able to fulfil another person's/ their partner's expectations

They don't know where they could meet a potential dating candidate, or potential partner

They don't understand how dating, or a romantic relationship works, or how to behave during dating, or while in a romantic relationship

They don't like the physical contact which dating, or a romantic relationship may involve

They just don't feel the need to date, or be in a romantic relationship

None

Other (give examples)

I don't know

I'd prefer not to say

### 17. Does your child fear, or are they particularly anxious about dating, or romantic relationships?

Yes

No

I don't know

I'd prefer not to say

17a. If so, what do they fear or feel particularly anxious about (what challenges, barriers may they face), when compared to other people their age?

I don't know

I'd prefer not to say

18. Do you have any concerns about your child exhibiting behaviours that may be perceived as inappropriate when trying to show that they like/are attracted to another person?

Yes

No

I don't know

I'd prefer not to say

18a. If so, what are some of your concerns?

I'd prefer not to say

19. Do you think your child may be more vulnerable, than other people their age, to experiencing cyber-bullying when online dating?

Yes

No

I don't know

I'd prefer not to say

19a. If yes, why might your child be more vulnerable, than other people their age, to experiencing cyber-bullying when online dating?

I don't know

I'd prefer not to say

20. Do you think your child may be more vulnerable, than other people their age, to sexual grooming when online dating?

Yes

No

I don't know

I'd prefer not to say

20a. If so, why might your child be more vulnerable to sexual grooming, than other people their age, when online dating?

I don't know

I'd prefer not to say

21. Have you got any concerns regarding your child's dating in general?

Yes

No

I don't know

I 'd prefer not to say

21a. If yes, what are your concerns?

I'd prefer not to say

#### 22. Does/Did your child have sexuality education in their school/college?

Yes

No

I don't know

I'd prefer not to say

23. Did your child get the exact same sexuality education as all students at their school/college?

I don't know

I'd prefer not to say

24. How often do/did sexuality education lessons take place at your child's school/college?

Once a month

Twice a month

Once a week

Twice a week

Other

I don't know

I'd prefer not to say

### 25. Do you think that the sexuality education provided at your child's schools/college is/was appropriate for your child?

Yes

No

I don't know

I'd prefer not to say

25a. If not, why not?

I'd prefer not to say

25b. Do you have any ideas, that you would like to share, on how it could be improved?

I don't know

I'd prefer not to say

26. Do you think it would be beneficial if sexuality education were tailored specifically for young people with autism spectrum disorders and/or attention-deficit/hyperactivity disorder in schools/colleges?

Yes

No

I don't know

I'd prefer not to say

Not applicable

26a. If yes, why? /If not, why not?

I don't know

I'd prefer not to say

26b. If yes, in what way?

\_\_\_\_\_

I don't know

I'd prefer not to say

27. Does/did your child's school/college collaborate with you with regards to the sexuality education for your child?

Yes

No

I don't know

I'd prefer not to say

27a. If yes, what are/were the benefits of this collaboration?

I don't know

I'd prefer not to say

28. Do you think that schools/colleges should collaborate with parents with regards to sexuality education for their children?

Yes

No

I don't know

I'd prefer not to say

#### 28a. If yes, why? / If not, why?

\_\_\_\_

I don't know

I'd prefer not to say

28b. If yes, in what way?

I don't know

I'd prefer not to say

## 29. Do you have any concerns about your child learning about sexuality, dating and romantic relationships from the Internet?

Yes

No

I don't know

I'd prefer not to say

29a. If so, what are some of your concerns?

I don't know

I'd prefer not to say

### 30. Has your child been taught the following aspects of sexuality at their school/college? (tick one response per category)

	Yes	No	l don't know	l'd prefer not to say
A. Using contraception (e.g.,				
condoms, contraceptive pill, etc.)				
B. Having tests for sexually				
transmitted infections (STI's)				
C. Not making important decisions				
about sexual activities while				
affected by alcohol or drugs				
D. Hygiene (e.g., washing genitals)				
E. Menstruation (menstrual				
periods)				
F. Understanding				
healthy/unhealthy relationship				
G. Recognising abuse in a				
relationship				
H. How to deal with sexual abuse				
I. Reproduction (pregnancy)				
J. Consequences of getting				
pregnant				
K. Dealing with a romantic rejection				
L. Dating				
M. Marriage				
N. Having children				
O. Consequences of watching				
pornography				
P. Consequences of watching child				
pornography				

### 31. Do you think it is important that your child learns about the following aspects of

#### sexuality at their school/college? (tick one response per category)

	Yes	No	l don't know	I'd prefer not to say
A. Using contraception (e.g.,				
condoms, contraceptive pill, etc.)				
B. Having tests for sexually				
transmitted infections (STI's)				
C. Not making important decisions				
about sexual activities while				
affected by alcohol or drugs				

D. Hygiene (e.g., washing genitals)		
E. Menstruation (menstrual		
periods)		
F. Understanding		
healthy/unhealthy relationship		
G. Recognising abuse in a		
relationship		
H. How to deal with sexual abuse		
I. Reproduction (pregnancy)		
J. Consequences of getting		
pregnant		
K. Dealing with a romantic rejection		
L. Dating		
M. Marriage		
N. Having children		
O. Consequences of watching		
pornography		
P. Consequences of watching child		
pornography		

32. Is there anything else you think your child should learn about sexuality, dating and romantic relationships, which they have not learnt yet as far as you are aware?

I don't know

I'd prefer not to say

33. Is there any type of technology-based support (e.g., particular applications, devices, videos, etc.) that you feel would be beneficial for your child in terms of supporting their learning about sexuality, dating and romantic relationships?

Yes

No

I don't know

I'd prefer not to say

33a. If so, what type of technology-based support (e.g., particular applications, devices, videos, etc.) would you recommend and why? (give as much detail with examples as possible)

I don't know

I'd prefer not to say

33b. What other methods of delivery (e.g., face-to-face, individual support, group sessions, etc.) of sexuality, dating and relationships education would you recommend for your child and why? (give as much detail with examples as possible)

I don't know

I'd prefer not to say

34. Have you got any concerns regarding any other aspects of your child's sexuality, dating and romantic relationships?

Yes

No

I don't know

I'd prefer not to say

34a. If so, what are your concerns?

I'd prefer not to say

35. Have you ever requested support for how to speak most appropriately and effectively to your child about sexuality, dating and romantic relationships?

### Yes

### No

I don't remember

I'd prefer not to say

### 35a. If so, what age was your child at that time when you requested the support?

I don't remember

I'd prefer not to say

### 35b. If so, who did you ask for support? (tick one response or more)

The school/college

GP/Medical professional (e.g., nurse)

Counsellor

Therapist

Psychologist

Psychiatrist

Family

Peer feedback

The Internet

Technology based (videos, mobile device applications)

Other (give examples)

I don't know

I'd prefer not to say

36. Have you ever received any support for how to speak more confidently and effectively to your child about sexuality, dating and romantic relationships?

Yes

No

I don't remember

I'd prefer not to say

### 36a. If so, how old was your child when you received that support?

I don't remember

I'd prefer not to say

### 36b. If so, who provided you with the support? (tick one response or more)

The school/college

GP/Medical professional (e.g., nurse)

Counsellor

Therapist

Psychologist

Psychiatrist

Family

Peer feedback

The Internet

Technology based (videos, mobile device applications)

Other (give examples)

I don't know

I'd prefer not to say

## 36c. What type of support have you received? (please give as much detail with examples as possible)

I don't remember

I'd prefer not to say

#### 36d. Was the support beneficial?

Yes

No

I don't know

I'd prefer not to say

### 36e. If yes, in what way was it beneficial? If not, why not?

### I don't know

I'd prefer not to say

37. Who would you like to provide you with the support to make you feel more confident about how to speak to/teach your child about sexuality, dating and romantic relationships? (tick one response or more)

The school/college

GP/Medical professional (e.g., nurse)

Counsellor

Therapist

Psychologist

Psychiatrist Family

Peer feedback

The Internet

Technology based (videos, mobile device applications)

Other (give examples)

None

I don't know

I'd prefer not to say

38. What kind of support, if any, would you have found/would you find beneficial to make you feel more confident about how to speak to/teach your child about sexuality, dating and romantic relationships?

I don't know

I'd prefer not to say

39. How would you describe your relationship to the child?

Mother

Father

Other (please specify)

If there is anything else you think might be relevant for the study and you would like to share with us, please leave it here.

Also, if there are any questions not asked in this questionnaire and you may deem important, please write them here.

# THANK YOU VERY MUCH FOR TAKING TIME TO COMPELTE THIS QUESTIONNAIRE.

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Brook – Healthy lives for young people

• Victim Support call 0800 123 6600 / online chat (all-age)

### Relate (the relationship people)

Help for Children & Young People – Family & Relationship Help | Relate

Contact us | Relate

**SupportLine** is particularly aimed at those who are isolated, at risk, vulnerable and victims of any form of abuse.

Helpline: 01708 765200 (hours vary so ring for details)

Admin: 01708 765222

Email: info@supportline.org.uk

### Manchester City Council: Sexual Health

Sexual health | Sexual health | Manchester City Council

To report abuse, neglect, or a vulnerable person at risk:

0161 234 5001

### Fresh4Manchester

Home - Fresh4Manchester

CALL US NOW ON 0161 701 1555

### National Autistic Society. Manchester:

https://www.autism.org.uk/services/england/manchester.aspx email: supportercare@nas.org.uk.

tel.nr: 0808 800 4104. or: 0808 800 1050.

### CABA Helping People with Autism:

https://www.caba.org.uk/help-and-guides/information/support-people-autism email: enquiries@caba.org.uk

tel.nr: +44 (0) 1788 556 366

### UKAP The UK ADHD Partnership:

https://www.ukadhd.com/what-is-ukap.htm

### email: addup@addup.co.uk

### MADDchester:

### http://www.maddchester.com/

email: contact@maddchester.com

### STOP IT NOW; Helping Prevent Child Sexual Abuse:

### https://www.stopitnow.org.uk/

Tel.nr: 0808 1000 900

STOP IT NOW is a charity in the UK which offers information and support for individuals who may have experience of illegal online sexual behaviour involving children (e.g., any type of pornography) and who would like to receive support for how to change these behaviours. The charity also provides support for families and friends and of these individuals; additionally, it helps people cope with difficult emotions, and the professionals who work with these groups.

### Further information and contact details:

Should you require any further information please contact the primary researcher:

XXXX, XXXX@edu.salford.ac.uk

If you are interested in participating in semi-structured interviews as a follow-up, please leave your email address here. Thank you.

**Questionnaire for Young People** 



### Questionnaire

This is an anonymous questionnaire.

Please do not write your name, or any identifying information in your responses.

Please ensure that you have read the *Participant Information Sheet* before completing this

questionnaire as it explains the purpose of this research.

### By completing and returning this questionnaire you indicate your consent to participate in this research.

This questionnaire contains questions about your romantic relationships, sexuality and sexual behaviours, *sexuality education*\* and sexual knowledge. For the purpose of this research, the researcher has adopted the terminology (autism spectrum disorders (ASD) and/or attention-deficit/hyperactivity disorder (ADHD)) from the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) (APA,2013) and will be using it to throughout the questionnaire.

Some questions may not apply to you, but in the interest of good research it is beneficial to ask these questions.

If you would like to receive a paper copy of the questionnaire, please send an email to:

### xxx@edu.salford.ac.uk

\*"Comprehensive sexuality education covers the same topics as sex education but also includes issues such as relationships, attitudes towards sexuality, sexual roles, gender relations and the social pressures to be sexually active, and it provides information about sexual and reproductive health services." (Leung et al., 2019).

This questionnaire must be completed by individuals aged 18 years and over only.

1. Your age (in years and months, e.g., 18 years and 3 months):

Male

Female

Other: \_\_\_\_\_

3. Your ethnicity:

### White

- English / Welsh / Scottish / Northern Irish / British
- Irish
- Gypsy or Irish Traveller
- Any other White background

Mixed / Multiple ethnic groups

- White and Black Caribbean
- White and Black African
- White and Asian
- Any other Mixed / Multiple ethnic background

### Asian / Asian British

- Indian
- Pakistani
- Bangladeshi
- Chinese
- Any other Asian background

Black / African / Caribbean / Black British

- African
- Caribbean
- Any other Black / African / Caribbean background

Other ethnic group

- Arab
- Any other ethnic group

### 4. Have you been diagnosed with any of the following condition? (tick one or more)

Autism Spectrum Disorder (this may include, Asperger's Disorder, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder Not Otherwise Specified) (ASD)

Attention-Deficit/Hyperactivity Disorder (ADHD)

ASD co-occurring with ADHD

No, I am a neurotypical (TD) young person (I do not have any suspected or diagnosed neurodevelopmental condition)

5. If you were diagnosed with (a) neurodevelopmental condition(s); How old were you when you were first diagnosed with this condition/these conditions?

Autism spectrum disorder: \_\_\_\_\_ years \_\_\_\_\_ months

Attention-Deficit/Hyperactivity Disorder: \_\_\_\_\_ years \_\_\_\_\_ months

### 6. What is the highest level of education you have completed (e.g., Year 10, GCSEs)?

### 7. What type of school/college do you attend currently/ have you attended most recently?

Mainstream school/college

Mainstream school/college and, also, they have/had help from teaching support staff for students with neurodevelopmental conditions such as autism and attentiondeficit/hyperactivity disorder

Special needs school/college (non-residential)

Special needs boarding school/college, residential special school/college

Other: \_\_\_\_\_

I'd prefer not to say

8. Have you ever been provided with any interventions or educational support sessions at your school/college or outside your school/college to enhance your social communication skills?

Yes

No

I don't know

I'd prefer not to say

### 8a. If yes, what type of support have you received?

I don't know

I'd prefer not to say

### 8b. If yes, who provided you with this support?

The school/college

GP/Medical professional (e.g., nurse)

Counsellor

Therapist

Psychologist

Psychiatrist

Family

Peer feedback

The internet

Technology based (videos, mobile device applications)

Other (give examples)

I don't know

I'd prefer not to say

### 8c. Did you find this support helpful?

Yes

No

I don't know

I'd prefer not to say

8d. If yes, in what way(s) was it helpful? /If not, why not?

I don't know

I'd prefer not to say

8e. If you have not received support, would it be helpful for you to be provided with interventions or support, which would enhance your social communication skills?

Yes

No

I don't know

I'd prefer not to say

8f. What type of intervention or support would you like to receive and why?

\_\_\_\_\_

I don't know

I'd prefer not to say

### 9. Have you ever dated someone or been in a romantic relationship?

Yes, in the past

Yes, I am currently dating someone/ in a romantic relationship

No, I have not

I don't know

I'd prefer not to say

### 10. Have you ever experienced any of the following romantic behaviours? (tick one response per category)

	Yes	No	l don't remembe r	l'd prefer not to say
Holding hands with someone?				
Hugging/cuddling with someone?				
Kissing someone on the lips?				
Touching/petting private parts of the body with someone?				

Having a sexual intercourse with someone?		

### **11.** How old were you when you first time experienced any form of romantic behaviour with another person?

I don't remember I haven't experienced this yet I'd prefer not to say

### **12.** Do you have any concerns about dating or becoming romantically involved with another person?

Yes

No

I don't know

I'd prefer not to say

### 12a. If so, what are your concerns?

I don't know

I'd prefer not to say

13. Do you find it difficult to recognise whether another person is trying to show you that they like/are attracted to you or not?

Yes

No

I don't know

I'd prefer not to say

14. Do you have any concerns about exhibiting behaviours that may be considered inappropriate when trying to show another person that you like/are attracted to them?

Yes

No

I don't know

I'd prefer not to say

#### 14a. If so, what are your concerns?

I don't know

I'd prefer not to say

### 15. Have you got any concerns about how to recognise whether your dating or romantic relationship is healthy or not?

Yes

No

I don't know

I'd prefer not to say

15a. If so, what are your concerns?

I don't know

I'd prefer not to say

16. Do you feel that you may be more vulnerable, than other people your age, to being abused or taken advantage of by another person/your partner while dating/ in a romantic relationship?

Yes

No

I don't know

I'd prefer not to say

16a. What types of abuse by another person/your partner, might you be more vulnerable to?

I don't know

I'd prefer not to say

17. What barriers may be preventing you from getting involved in dating/a romantic relationship (if you are not dating and are not in a romantic relationship)?

Contact with others is too tiring for me

I haven't yet met the right person I would like to date/ be with

I worry I may not be able to fulfil another person's/my partner's expectations

I don't know where I could meet a potential dating candidate, or potential partner

I don't understand how dating, or a romantic relationship, works or how to behave during dating, or while in a romantic relationship

I don't like the physical contact which dating, or a romantic relationship may involve

I just don't feel the need to date, or be in a romantic relationship

None

Other (give examples)

I don't know

I'd prefer not to say

### 18. Are you satisfied with your current dating or romantic relationship (if you are dating, or are in a romantic relationship)?

Yes

No

I don't know

I'd prefer not to say

### 19. Have you ever experienced cyber-bullying when online dating?

Yes

No

I have not done online dating

I don't know

I'd prefer not to say

### 20. Do/Did you have sexuality education at your school/college?

Yes

No

I do not remember

I don't know

I'd prefer not to say

### 21. Do/Did you receive the same sexuality education that all students in your school/college receive/received?

Yes

No

I don't remember

I don't know

I'd prefer not to say

### 21a. If no, what sexuality education do/did you receive in your school/college?

I don't remember

I don't know

I'd prefer not to say

### 21b. Was the sexuality education you received useful for you?

Yes

No

I don't remember

I don't know

I'd prefer not to say

### 21c. If yes, what was it that you found helpful or useful? / If not, why not?

\_\_\_\_\_

I don't remember

I don't know

I'd prefer not to say

### 21d. Do you think the sexuality education you received could have been better?

Yes

No

I don't know

I'd prefer not to say

21e. If yes, in what way?

\_\_\_\_\_

I don't know

I'd prefer not to say

### 22. How often do/did sexuality education lessons take place at your school/college?

Once a month

Twice a month

Once a week

Twice a week

Other (give details)

I don't know

\_\_\_\_

I'd prefer not to say

### 23. What are/were your concerns regarding learning about sexuality, dating and romantic relationships?

I don't know

I'd prefer not to say

### 24. Do you have any concerns about learning about sexuality, dating and romantic relationships from the Internet?

Yes

No

I don't know

I'd prefer not to say

### 24a. If so, what are your concerns?

I don't know

I'd prefer not to say

### 25. Have you been taught the following aspects of sexuality at your school/college? (tick one response per category)

	Yes	No	I'd prefer not to say
A. Using contraception (e.g.,			
condoms, contraceptive pill, etc.)			
B. Having tests for sexually			
transmitted infections (STI's)			
C. Not making important decisions			
about sexual activities while affected			
by alcohol or drugs			
D. Hygiene (e.g., washing genitals)			
E. Menstruation (menstrual periods)			
F. Understanding healthy/unhealthy			
relationship			
G. Recognising abuse in a			
relationship			
H. How to deal with sexual abuse			
I. Reproduction (pregnancy)			
J. Consequences of getting pregnant			
K. Dealing with a romantic rejection			
L. Dating			
M. Marriage			
N. Having children			
O. Consequences of watching			
pornography			
P. Consequences of watching child			
pornography			

### 26. Is there anything else you would like to learn about sexuality, dating and romantic relationships that was not covered in the lessons you had received?

I don't know

I'd prefer not to say

27. If you are currently a student, are there any types of technology-based support (e.g., particular applications, devices, videos, etc.) that would be beneficial for you in terms of supporting your learning about sexuality, dating and romantic relationships in your school/college?

Yes

No

I don't know

I'd prefer not to say

27a. If so, what types of technology-based support (e.g., particular applications, devices, videos, etc.) would you recommend and why? (please give as much detail as possible, with examples, if possible)

I don't know

I'd prefer not to say

27b. What other methods of delivery (e.g., face-to-face, individual support, group sessions etc.) of sexuality, dating and relationships education would you recommend and why? (please give as much detail as possible, with examples, if possible)

I don't know

I'd prefer not to say

28. If you are no longer a student, are there any types of technology-based support (e.g., particular applications, devices, videos, etc.) that you would recommend as being potentially useful for supporting individuals in their learning about sexuality, dating and romantic relationships in school/college?

Yes

No

I don't know

I'd prefer not to say

28a. If yes, what kind of technology-based support would you recommend?

I don't know

I'd prefer not to say

28b. If yes, why do you think what you have recommended above might be useful for supporting individuals in their learning about sexuality, dating and romantic relationships in school/college?

I don't know

I'd prefer not to say

If there is anything else you think might be relevant for the study and you would like to share with us, please leave it here.

Also, if there are any questions not asked in this questionnaire and you may deem important, please write them here.

If you have any worries or would like any help with any of the issues raised in this questionnaire then please get in touch with the researcher (contact details available in the participant information sheet) or talk to adult whom you can trust.

## THANK YOU VERY MUCH FOR TAKING TIME TO COMPELTE THIS QUESTIONNAIRE.

Leung, H., Shek, D. T., Leung, E., & Shek, E. Y. (2019). Development of contextually relevant sexuality education: lessons from a comprehensive review of adolescent sexuality education across cultures. *International journal of environmental research and public health*, *16*(4), 621.

\*American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. Arlington, VA: American Psychiatric Association.



Exploring Sexuality Knowledge and Experience of Romantic Relationships in Adolescents and Young Adults with Autism Spectrum Disorder, Attention-Deficit/Hyperactivity Disorder, and Autism Spectrum Disorder co-occurring with Attention-Deficit/Hyperactivity Disorder. Perspectives from Caregivers, Educational Professionals and Adolescents and Young Adults

### **Participant Debrief Sheet**

Thank you for completing this questionnaire. We hope that you have found it interesting and have not been upset by any of the questions. However, if any part(s) of this questionnaire has made you feel upset or distressed in any way and you would wish to speak to someone about it, you may contact the independent <u>organisations listed</u> <u>below:</u>

### Young Minds

YoungMinds - children and young people's mental health charity

Call for free on 0808 802 5544 (9:30am - 4pm, Mon - Fri)

### Mental Health UK

Supporting young people - Mental Health UK (mentalhealth-uk.org)

Tel. Nr 0121 522 7007 (10am-4pm Mon-Fri (excluding bank holidays)

### Brook : YOUR FREE & CONFIDENTIAL SEXUAL HEALTH & WELLBEING EXPERTS

Brook – Healthy lives for young people

• Victim Support call 0800 123 6600 / online chat (all-age)

### Relate (the relationship people)

Help for Children & Young People – Family & Relationship Help | Relate

Contact us | Relate

**SupportLine** is particularly aimed at those who are isolated, at risk, vulnerable and victims of any form of abuse.

Helpline: 01708 765200 (hours vary so ring for details)

Admin: 01708 765222

**Email:** info@supportline.org.uk

### Manchester City Council: Sexual Health

Sexual health | Sexual health | Manchester City Council

To report abuse, neglect, or a vulnerable person at risk:

0161 234 5001

### Fresh4Manchester

Home - Fresh4Manchester

CALL US NOW ON 0161 701 1555

### National Autistic Society. Manchester:

https://www.autism.org.uk/services/england/manchester.aspx email: supportercare@nas.org.uk.

tel.nr: 0808 800 4104. or: 0808 800 1050.

### CABA Helping People with Autism:

https://www.caba.org.uk/help-and-guides/information/support-people-autism email: enquiries@caba.org.uk

tel.nr: +44 (0) 1788 556 366

### UKAP The UK ADHD Partnership:

https://www.ukadhd.com/what-is-ukap.htm

email: addup@addup.co.uk

### MADDchester:

http://www.maddchester.com/

email: contact@maddchester.com

### STOP IT NOW; Helping Prevent Child Sexual Abuse:

https://www.stopitnow.org.uk/

Tel.nr: 0808 1000 900

STOP IT NOW is a charity in the UK which offers information and support for individuals who may have experience of illegal online sexual behaviour involving children (e.g., any type of pornography) and who would like to receive support for how to change these behaviours. The charity also provides support for families and friends and of these individuals; additionally, it helps people cope with difficult emotions, and the professionals who work with these groups.

### Further information and contact details:

Should you require any further information please contact the primary researcher:

XXXX, XXXX@edu.salford.ac.uk

If you are interested in participating in semi-structured interviews as a follow-up, please leave your email address here. Thank you.

### Appendix 4. Design of The Questionnaires for Pilot Study

Group 1: The questionnaire for educational professionals.

The questions (1,2,3,4,5) were developed by the researcher to gather general information about the participants, as well as their students, including students' age range, diagnosis, education.

The questions (6,6a,6b,6c,6d) were added by the researcher and they are closely based on the literature (e.g., Barkley, 2006; Nijmeijer et al., 2008, Griffiths, 2013).

6. Is your school/college providing students, in the following categories (throughout the questionnaire, there will be a table given including each group of students [ASD, ADHD, and ASD co-occurring with ADHD] for participants to answer) with any interventions or educational support sessions to improve their social communication skills?

6a. If where you teach does offer additional support for students with Autism Spectrum Disorder and Attention-Deficit/Hyperactivity Disorder to help improve their social skills, what type of additional support is offered?

6b. If where you teach does not offer additional support for students with autism spectrum disorder and/or attention-deficit/hyperactivity disorder to help improve their social skills, do you think additional support on this particular topic would be beneficial or helpful?

6c. If you think that additional support for students with autism spectrum disorder and/or attention-deficit/hyperactivity disorder to help improve their social

communication skills would be beneficial, what type of interventions or support would you recommend for students in the following categories?

6d. Why is it important to provide additional interventions/support for students with autism spectrum disorder and/or attention-deficit/hyperactivity disorder to help improve their social communication skills? (please give as much detail as possible for each category)

The questions (7,8,8a,9, 9a) were adapted from "Illustrative Questionnaire for

Interview Surveys with Young People." (Cleland et al., 2005).

"Illustrative Questionnaire for Interview Surveys with Young People." (Cleland et al., 2005).	The researcher's adapted questions
Did you and NAME (the partner) have any physical contact, such as holding hands, hugging or kissing? Yes No Did you ever kiss NAME on the lips? Yes No Did you ever touch NAME'S vagina/penis with your hand? Yes No Did you ever stroke NAME'S vagina/penis so that she/he climaxed? Yes No Did NAME ever touch your penis/vagina with her /his hand? Yes No Did NAME ever stroke your penis/vagina so that you climaxed? Yes No MALES: Did you ever put your penis inside NAME's vagina? FEMALES: Did NAME ever put his penis inside your vagina? Yes No MALES: Did you ever reach climax inside NAME'S vagina? FEMALES: Did NAME ever reach climax inside NAME'S vagina? Yes No	7. Have your students, in the following categories, ever talked to you about their dating or romantic experiences?

Think back to the first time you had sex with NAME - I mean the first time that the penis was in the vagina. Would you say. READ OUT (a) I forced NAME to have intercourse against her/his will (b) I persuaded NAME to have intercourse (c) NAME persuaded me to have intercourse (d) NAME forced me to have intercourse (e) We were both equally willing (a) I forced (b) I persuaded (c) NAME persuaded (d) NAME forced (e) Both willing	I was interested whether students have had any difficult sexual experiences, I formulated the question in a much broader way than the original one was. 8. Have your students, in the following categories, ever talked to you about encountering any challenges while dating or being in a romantic relationship? 8a. If so, what were the challenges your students, in the following categories, encountered?
People may have mixed reasons for not having intercourse. I will read out some reasons. Please tell me for each reason whether it applies to you or not. I don't feel ready to have sex. I have not had the opportunity. I think that sex before marriage is wrong I am afraid of getting pregnant I am afraid of getting HIV/AIDS or another sexually transmitted infection.	<ul> <li>9. Do you have any concerns about your students, in the following categories, dating or becoming romantically involved with another person?</li> <li>9a. If so, what are your concerns for students in the following categories?</li> </ul>

The question (10) was added by the researcher based on the existing literature e.g.,

(Stokes et al., 2007; Hannah & Stagg, 2016).

10. In your experience, compared to neurotypical peers, do you have any concerns about your students', in the following categories, abilities to recognise that someone likes/is attracted to them or not? The questions (11,11a, 12, 12a) were developed from the "Conflict in Adolescent Dating Relationships Inventory" (CADRI; Wolfe et al., 2001), which was utilised by Rokeach and Wiener (2018).

"Conflict in Adolescent Dating Relationships Inventory" (CADRI; Wolfe et al., 2001).	The researcher's adapted questions:
This scale consists of many questions concerning the ways partners deal with conflicts in their relationship. For example,	I wanted to ask these questions in a much broader way (due to the sensitivity of them), hence I developed questions:
During a conflict or argument with my boyfriend in the past year: 15. I threatened him in an attempt to have sex with him. He threatened me in an attempt to have sex with me. 16. I put off talking until we calmed down.	<ul> <li>11. In your experience, compared to neurotypical peers, do you have any concerns about your students', in the following categories, abilities to recognise whether their dating or romantic relationship is healthy or not?</li> <li>11a. If so, what are your types of concerns for students in the following categories?</li> </ul>
He put off talking until we calmed down 17. I insulted him with put-downs. He insulted me with put-downs. 18. I discussed the issue calmly. He discussed the issue calmly. 19. I kissed him when he didn't want me to.	<ul> <li>12. Compared to their neurotypical peers, do you think that students, in the following categories, may be more vulnerable to being abused by another person/their partner while dating/ being in a romantic relationship?</li> <li>12a. Typically, what types of abuse by another person/a partner, might your</li> </ul>

He kissed me when I didn't want him to.	students, in the following categories, be
20. I said things to his friends about him to turn them against him.	more vulnerable to?
He said things to my friends about me to turn them against me	

The question (13) was adapted from the questions designed by Struntz and colleagues (2017) for the purpose of their research.

Struntz and colleagues (2017).	The researcher's adapted questions:
"Romantic relationships and	
relationship satisfaction among adults	
with Asperger syndrome and high-	
functioning autism."	
What prevents you from entering into a	13. In your experience, typically, what
romantic relationship?	barriers may be preventing some of
Contact with others is too exhausting	your students, in the following
for me	categories, from getting involved in
I haven't yet met anybody with whom I	dating or romantic relationships? (tick where applies for each category)
could imagine having a romantic relationship	Contact with others may be too tiring for them
I am afraid of not fulfilling my partner's expectations	They haven't yet met the right person they would like to date/ be with
l don't know how to meet a potential partner	They worry they may not be able to fulfil another person's/their partner's expectations

I don't know how a romantic	They don't know where they could
relationship works or how to behave in	meet a potential dating candidate or
a romantic relationship	potential partner
I don't like the physical contact a	They don't understand how dating, or a
romantic relationship brings with it	romantic relationship works or how to
Sexual activities are unpleasant for me I simply don't feel the need for a romantic relationship	behave during dating, or in a romantic relationship They don't like the physical contact that dating, or a romantic relationship may involve They just don't feel the need to date, or
	be in a romantic relationship
	Other
	l don't know
	I'd prefer not to say

The questions (14,14a) were adapted from "Multidimensional Sexuality Questionnaire" (MSQ) (Snell et al., 1993).

Multidimensional Sexuality Questionnaire (MSQ) (Snell et al., 1993).	The researcher's adapted questions:
Fear of sexual relationships.	14. In your experience, do some of your students, in the following categories, fear dating or romantic relationships?

I am somewhat afraid of becoming	
sexually involved with another person.	

14a. If so, compared to their neurotypical peers, what may students, in the following categories, fear (what challenges, barriers may they face)?

The questions (15,15a,16,16a,17,17a) were adapted from "Internet Dating Inventory" invented and utilised by Roth (2015).

"Internet Dating Inventory" (Roth,	The researcher's adapted questions:
2015).	
Which of the following is not true about	I asked education professionals the
following-up with your romantic	question in a much broader way.
interest often and/or quickly with	15. In your experience, compared to
emails, phone calls, or requests to meet	their neurotypical peers, do you have
in person?	any concerns about your students, in
You will appear desperate	the following categories, exhibiting
You will come off as really committed	behaviours, which may be perceived
to the relationship	inappropriate, when trying to show
	another person that they like them/are
Your romantic interest may think you	attracted to them?
are a "stalker"	
Your romantic interact may not know	15a. If so, what are your concerns for
Your romantic interest may not know	students in the following categories?
how to respond to you	

I am concerned of being taken	16. Compared to their neurotypical
advantage of online dating	peers, do you think your students, in
	the following categories, may be more
	vulnerable to experiencing cyber-
Strongly Agree	bullying when online dating?
Strongly Disagree	16a. If yes, why students, in the
Agree	following categories, might be more
	vulnerable to cyber-bullying than their
	neurotypical peers when online dating?
	17. Compared to their neurotypical
	peers, do you think that students, in the
	following categories, may be more
	vulnerable to sexual grooming when
	online dating?
	17a. If yes, why might students, in the
	following categories, be more
	vulnerable to sexual grooming than
	their neurotypical peers, when online
	dating?

The questions (18,18a) were added by the researcher, and it was based on the literature (see e.g., Cheak-Zamora et al., 2019, Overbey et al., 2011).

18. Do you have any concerns regarding your students, in the following categories, dating in general?

18a. If yes, what are your concerns for students in the following categories? (give examples, if possible

The questions (20: A, B, E, I, J) were developed from the "General Sexual Knowledge Questionnaire" (GSKQ; Talbot and Langdon 2006), which was utilised by Hartmann and colleagues (2019).

"General Sexual Knowledge	The researcher's adapted questions:
Questionnaire" (GSKQ; Talbot and Langdon 2006).	20. Have your students, in the following categories, been taught the following aspects of sexuality at your school/college?
4. Contraception (the whole section), e.g.,	A. Use contraception (e.g., condoms, contraceptive pill, etc.)
32. Can you tell me what contraception/birth control is?	
<ul> <li>5. Sexually transmitted diseases (the whole section) e.g.,</li> <li>37. What is an STD/STI/Venereal disease?</li> </ul>	B. Sexually transmitted infections (STI's)
<ul> <li>1b. Physiology questions:</li> <li>8. What is a period/monthly/time of the month?</li> <li>9. How old are women when they start their periods?</li> </ul>	E. Menstruation (menstrual periods);

10. How often do women start periods?	
3. Pregnancy (the whole section) e.g.,	I. Reproduction (pregnancy)
24. Can you tell me what being pregnant means?	J. Consequences of getting pregnant
25. How do women become pregnant?	
26. How long does it take from getting pregnant to having baby?	
27. How does a woman know that she is pregnant?	

The question 20 (C) was added by the researcher and it was closely based on previous research (e.g., Marsh et al., 2015; Flory et al., 2007).

C. Not making important decisions about sexual activities while affected by alcohol or
drugs

The questions (20: D, F, G, H, K, L, M, N) were developed from "Sexual Development and Behavior in Children with Autism: The Parent Perspective" designed and used by Holmes and Himle (2014).

"Sexual Development and Behavior in	The researcher's adapted questions:
Children with Autism: The Parent	
Perspective" (Holmes and Himle, 2014).	

How do you (or your partner) talk about	20. Have your students, in the following
sexuality with your child?	categories, been taught the following
Hygiene (e.g., washing genitals)	aspects of sexuality at your school/college? D. Hygiene (e.g., washing private parts of the body)
How to say no if someone wants to	F. Understanding healthy/unhealthy
have sex and your child doesn't want to	relationship
What kinds of touch are okay/not okay	G. Recognising abuse in a relationship
How to report sexual abuse	H. How to deal with sexual abuse
How to deal with romantic rejection	K. Dealing with a romantic rejection
How to ask someone out on a date	L. Dating
Dating and marriage	M. Marriage
	N: Having Children

The questions (20: O, P) were added by the researcher and it was closely based on previous research (e.g., Allely & Creaby-Attwood, 2016).

- O. Consequences of watching pornography
- P. Consequences of watching child pornography

The questions (19,19a, 21,22,23,23a,23b,24,24a,25,26,26a,26b,27,28,28a,29,29a) were added by the researcher; they are important for this study in order to understand views on sexuality education represented by the young people with neurodevelopmental disorders (see e.g., Pecora, 2016; Hannah & Stagg, 2016; Mackin et al., 2016). 19. Do you have any concerns about your students, in the following categories, learning about sexuality, dating and romantic relationships from the internet?

19a. If yes, what are your concerns for students in the following categories?

21. Is there anything else you think your students, in the following categories, should learn about sexuality, dating and romantic relationships, which they have not learnt yet at your school/college?

22. In your experience, do you think your students, in the following categories, have a good knowledge about sexual health?

23. Is there any type of technology-based support (e.g., particular applications, devices, videos, etc.) that, in your opinion, would help students, in the following categories, learn about sexuality, dating and romantic relationships? (tick where applies for each category)

23a. If yes, what technology-based support (e.g., particular applications, devices, videos, etc.) and why would you recommend for students in the following categories to learn about sexuality, dating and relationships? (please give as much detail as possible, with examples, if possible)

23b. What methods of delivery (e.g., technology-based [e.g., applications, videos, etc.], face-to-face, individual support, group sessions etc.) of sexuality, dating and relationships education would you recommend for students in the following categories? (please give as much detail as possible, with examples, if possible)

24. What topics does the current sexuality education at your school/college cover for all students and who teaches it?

24a. Are there any differences in this sexuality education for students in the following categories?

25. How often do the sexuality education lessons take place at your school/college?

26. In your experience, do you think that the current sexuality education at your schools/college is appropriate for students in the following categories?

26a. If not, why not?

26b. If not, how could it be improved?

27. Is sexuality education tailored specifically for students, in the following categories, at your school/college?

28. Do you think it would be beneficial to tailor sexuality education specifically for students in the following categories?

28a. If yes, why? /If not, why not?

29. Does your school/college collaborate with parents with regards to sexuality education for their children in the following categories?

29a. If yes, what are the benefits of this collaboration for students in the following categories? (give examples, if possible)

All these questions (30,31,31a,31b,31c,31d,32) were added by the researcher as it is important for this study to understand the support educational professionals would like to receive (if required) in order to provide better sexuality education for their students and be able to speak to them confidently about sexuality and issues surrounding this subject (see., e.g., Ballan, 2012; Blakely-Smith & Nichols, 2010; Tissot, 2009).

30. Do you feel your school has equipped you with the necessary skills and materials to teach students, in the following categories, about sexuality, dating and romantic relationships?

31. Have you ever received any support of how to, most appropriately and effectively, speak to students, in the following categories, about sexuality, dating and romantic relationships?

31a. If yes, what type of support was it?

31b. If yes, who provided this support?

31c. Was the support beneficial?

31d. If yes, in what way? / If not, why?

32. What kind of support would be beneficial for you to make you feel (more) competent about how to speak to/ teach students, in the following categories, about sexuality, dating and romantic relationships?

Group 2: The questionnaire for caregivers.

The questions (1,2,3,4,5,6,7) were developed by the researcher to gather general information about the participant including their gender, age, diagnosis and education and ethnicity.

The questions (8,8a,8b,8c,8d) were added by the researcher and they are closely based on the literature (e.g., Barkley, 2006; Nijmeijer et al., 2008, Griffiths, 2013).

8. Has your child ever been provided with any additional (to what is provided to all children your child's age) interventions or educational support sessions within or outside their school/college to improve their social communication skills?

8a. If yes, what type of additional support have they received?

8b. If yes, who provided them with the support?

8c. If not, would it be beneficial for your child to be provided with interventions or support, which would enhance their social communication skills?

8d. What type of interventions or support would you recommend and why?

The question (9) was adapted from "The Conflict in Adolescent Dating Relationships Inventory Short Form (CADRI) (Wolfe et al., 2001).

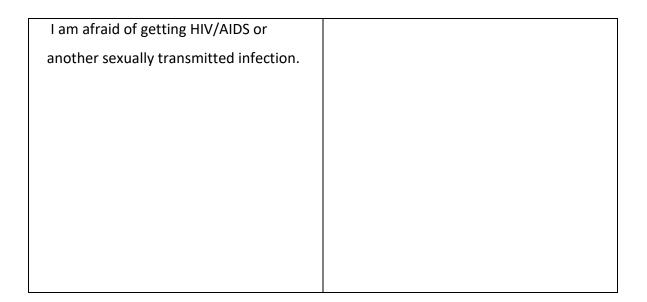
"The conflict in Adolescent Dating Relationships Inventory Short Form" (CADRI) (Wolfe et al., 2001).	The researcher's adapted questions:
If you have begun dating	9. Has your child ever dated someone
How many serious relationships have you had?	or been in a romantic relationship?

The questions (10,11, 11a, 12, 12a) were adapted from "Illustrative Questionnaire for Interview Surveys with Young People." (Cleland et al., 2005).

"Illustrative Questionnaire for	The researcher's adapted questions:
Interview Surveys with Young People."	
(Cleland et al., 2005).	
Did you and NAME (the partner) have	10. Has your child ever talked to you
any physical contact, such as holding	about their dating or romantic
hands, hugging or kissing?	relationships' experiences?
Yes No	
Did you ever kiss NAME on the lips?	
Yes No	
Did you ever touch NAME'S	
vagina/penis with your hand?	
Yes No	

Did you ever stroke NAME'S	
vagina/penis so that she/he climaxed?	
Yes No	
Did NAME ever touch your penis/vagina	
with her /his hand?	
Yes No	
Did NAME ever stroke your	
penis/vagina so that you climaxed?	
Yes No	
MALES: Did you ever put your penis	
inside NAME's vagina?	
FEMALES: Did NAME ever put his penis	
inside your vagina?	
Yes No	
MALES: Did you ever reach climax	
inside NAME'S vagina?	
FEMALES: Did NAME ever reach climax	
inside your vagina?	
Yes No	
Think back to the first time you had sex	I was interested whether the child has
with NAME - I mean the first time that	had any difficult sexual experiences, I
the penis was in the vagina. Would you	formulated the question in a much
say. READ OUT	broader way then the original one.
(a)	
I forced NAME to have intercourse	11. Has your child ever talked to you
against her/his will	about encountering any challenges

(b)	while dating or being in a romantic
(b)	
I persuaded NAME to have intercourse	relationship?
	11a. If so, what were the challenges
(c)	they had encountered?
NAME persuaded me to have	
intercourse	
(d)	
NAME forced me to have intercourse	
(e)	
We were both equally willing	
we were both equally winning	
(a) I forced	
(a) Horceu	
(b) I persuaded	
(c) NAME persuaded	
(d) NAME forced	
(e) Both willing	
People may have mixed reasons for not	12. Do you have any concerns about
having intercourse. I will read out some	your child dating or becoming
reasons. Please tell me for each reason	romantically involved with another
whether it applies to you or not.	person in the future (if they are not
I don't feel ready to have sex.	dating or are not romantically involved
I have not had the opportunity.	with anyone yet)?
i have not had the opportunity.	12a. If so, what are your concerns?
I think that sex before marriage is	
wrong	
I am afraid of getting pregnant	



The questions (13,13a) were added by the researcher based on the existing literature e.g., (Stokes et al., 2007; Hannah & Stagg, 2016).

13. Do you have any concerns about your child's ability to recognise that someone likes/is attracted to them or not?

13a. If so, what are your concerns?

The questions (14,14a,15,15a), were developed from the "Conflict in Adolescent Dating Relationships Inventory" (CADRI; Wolfe et al., 2001), which was utilised by Rokeach and Wiener (2018).

"Conflict in Adolescent Dating	The researcher's adapted questions:
Relationships Inventory" (CADRI;	
Wolfe et al., 2001).	

This scale consists of many questions concerning the way partners deal with conflicts in their relationship. For example,

During a conflict or argument with my boyfriend in the past year:

15. I threatened him in an attempt to have sex with him.

He threatened me in an attempt to have sex with me.

16. I put off talking until we calmed down.

He put off talking until we calmed down

17. I insulted him with put-downs.

He insulted me with put-downs.

18. I discussed the issue calmly.

He discussed the issue calmly.

19. I kissed him when he didn't want me to.

He kissed me when I didn't want him to.

20. I said things to his friends about him to turn them against him.

He said things to my friends about me to turn them against me

I wanted to ask these questions in a much broader way (due to the sensitivity of them), hence I developed questions:

14. Do you have any concerns about your child's ability to recognise whether their dating or romantic relationship is healthy or not?

14a. If so, what are your concerns?

15. Compared to their neurotypical peers, do you think that your child may be more vulnerable to being abused by another person/their partner while dating/ being in a romantic relationship?

15a. What types of abuse by another person/a partner, might your child be more vulnerable to?

The question (16) was adapted from the questions designed by Struntz and colleagues (2017) for the purpose of their research.

Struntz and colleagues (2017). "Romantic relationships and	The researcher's adapted questions:
relationship satisfaction among adults	
with Asperger syndrome and high-	
functioning autism."	
What prevents you from entering into a	16. What barriers may be preventing
romantic relationship?	your child from getting involved in
Contact with others is too exhausting	dating or romantic relationships (if they
for me	are not dating or are in a romantic
	relationship)?
I haven't yet met anybody with whom I	Contact with others may be too tiring
could imagine having a romantic	for them
relationship	
I am afraid of not fulfilling my partner's	They haven't yet met the right person
expectations	they would like to date/be with
I don't know how to meet a potential	They worry they may not be able to
partner	fulfil another person's/ their partner's
	expectations
I don't know how a romantic	They don't know where they could
relationship works or how to behave in	meet a potential dating candidate, or
a romantic relationship	potential partner
I don't like the physical contact a	
romantic relationship brings with it	They don't understand how dating, or a
Sexual activities are unpleasant for me	romantic relationship works, or how to
	behave during dating, or while in a
I simply don't feel the need for a	romantic relationship
romantic relationship	

They don't like the physical contact which dating, or a romantic relationship may involve
They just don't feel the need to date, or be in a romantic relationship
Other (give examples)
l don't know
I'd prefer not to say

The questions (17,17a) were adapted from "Multidimensional Sexuality Questionnaire" (MSQ) (Snell et al., 1993).

Multidimensional Sexuality Questionnaire (MSQ) (Snell et al., 1993).	The researcher's adapted questions:
Fear of sexual relationships.	17. Does your child fear, or are they particularly anxious about, dating or romantic relationships?
I am somewhat afraid of becoming sexually involved with another person.	17a. If so, what may they fear, or are they particularly anxious about, (what challenges, barriers may they face), when compared to their neurotypical peers?

The questions (18,18a,19,19a,20,20a) were adapted from "Internet Dating Inventory" invented and utilised by Roth (2015).

"Internet Dating Inventory" (Roth,	The researcher's adapted questions:
2015).	
Which of the following is not true about	I asked the question in a much broader
following-up with your romantic	way.
interest often and/or quickly with	
emails, phone calls, or requests to meet	
in person?	18. Compared to their neurotypical
You will appear desperate	peers, do you have any concerns about
	your child exhibiting behaviours, which
You will come off as really committed	may be perceived inappropriate, when
to the relationship	trying to show that they like/are
Your romantic interest may think you	attracted to another person?
are a "stalker"	18a. If so, what are your concerns?
Your romantic interest may not know	
how to respond to you	
I am concerned of being taken	19. Compared to their neurotypical
advantage of online dating	peers, do you think your child may be
	more vulnerable to experiencing cyber-
	bullying when online dating?
Strongly Agree	19a. If yes, why may they be more
Strongly Disagree	vulnerable to it?
Agree	20. Compared to their neurotypical
	peers, do you think your child may be
	more vulnerable to sexual grooming
	when online dating?

20a. If so, why may they be more
vulnerable to sexual grooming than
their neurotypical peers, when online
dating?

The questions (21, 21a) were added by the researcher, and it was based on the literature (see e.g., Cheak-Zamora et al., 2019, Overbey et al., 2011).

21. Have you got any concerns regarding your child's dating in general?

21a. If so, what are your concerns?

The question (22) was adapted from "Illustrative Questionnaire for Interview Surveys with Young People." (Cleland et al., 2005).

The researcher's adapted questions:
22. Does/Did your child have sexuality
education in their school/college?
22

Yes 1

No 2

Not sure 3 Never been to school

The questions (23,24,25,25a,25b,26,26a,26b,27,27a,28,28a,28b) were added by the

researcher; they are important for this study in order to understand views on sexuality

education represented by caregivers of young people with neurodevelopmental

disorders (see e.g., Pecora, 2016; Hannah & Stagg, 2016; Mackin et al., 2016).

23. Did your child get the exact same sexuality education as all students? 24. How often do/did the sexuality education lessons take place at your child's school/college? 25. Do you think that the sexuality education provided at your child's schools/college is/was appropriate for your child? 25a. If not, why not? 25b. Do you have any ideas, that you would like to share, on how it could be improved? 26. Do you think it would be beneficial if sexuality education were tailored specifically for young people with autism spectrum disorders and/or attentiondeficit/hyperactivity disorder in schools/colleges? 26a. If yes, why? /If not, why not? 26b. If yes, in what way? 27. Does/did your child's school/college collaborate with you with regards to sexuality education for you child? 27a. If yes, what are/were the benefits of this collaboration? 28. Do you think that schools/colleges should collaborate with parents with regards to sexuality education for children with autism spectrum disorders and/or attentiondeficit/hyperactivity disorder? 28a. If yes, why? / If not, why? 28b. If yes, in what why?

The questions (29,29a,32,33,33a,33b) were added by the researcher; they are

important for this study in order to understand views on sexuality education

represented by caregivers of young people with neurodevelopmental disorders (see

e.g., Pecora, 2016; Hannah & Stagg, 2016; Mackin et al., 2016).

29. Do you have any concerns about your child learning about sexuality, dating and romantic relationships from the internet?

29a. If so, what are your concerns?

32. Is there anything else you think your child should learn about sexuality, dating and romantic relationships, which they have not learnt yet as far as you are aware?

33. Is there any type of technology-based support (e.g., particular applications, devices, videos, etc.) that you feel would be beneficial for your child in terms of supporting their learning about sexuality, dating and romantic relationships?

33a. If so, what type of technology-based support (e.g., particular applications, devices, videos, etc.) would you recommend and why?

33b. What methods of delivery (e.g., technology-based [e.g., applications, videos, etc.], face-to-face, individual support, group sessions etc.) of sexuality, dating and relationships education would you recommend for your child and why?

The questions (30: A, B, E, I, J; 31: A, B, E, I, J) were developed from the "General Sexual Knowledge Questionnaire" (GSKQ; Talbot and Langdon 2006), which was utilised by Hartmann and colleagues (2019).

"General Sexual Knowledge	The researcher's adapted questions:
<b>Questionnaire"</b> (GSKQ; Talbot and Langdon 2006).	<ul> <li>30. Has your child been taught the</li> <li>following aspects of sexuality at their</li> <li>school/college?</li> <li>31. Do you think it is important that</li> <li>your child learns about the following</li> </ul>

4. Contraception (the whole section),       A. Use contraception (e.g., condoms,         e.g.,       contraceptive pill, etc.)         32. Can you tell me what       contraception/birth control is?         5. Sexually transmitted diseases (the       B. Sexually transmitted infections (STI's)		aspects of sexuality at their
4. Contraception (the whole section), e.g.,A. Use contraception (e.g., condoms, contraceptive pill, etc.)32. Can you tell me what contraception/birth control is?a. Use contraception (e.g., condoms, contraceptive pill, etc.)		
e.g., contraceptive pill, etc.) 32. Can you tell me what contraception/birth control is?		school/college?
32. Can you tell me what contraception/birth control is?	4. Contraception (the whole section),	A. Use contraception (e.g., condoms,
contraception/birth control is?	e.g.,	contraceptive pill, etc.)
contraception/birth control is?		
	32. Can you tell me what	
5. Sexually transmitted diseases (the     B. Sexually transmitted infections (STI's)	contraception/birth control is?	
	5. Sexually transmitted diseases (the	B. Sexually transmitted infections (STI's)
whole section) a g		
whole section) e.g.,	whole section) e.g.,	
37. What is an STD/STI/Venereal	37. What is an STD/STI/Venereal	
disease?	disease?	
1b. Physiology questions:E. Menstruation (menstrual periods);	1b. Physiology questions:	E. Menstruation (menstrual periods);
8. What is a period/monthly/time of the	8. What is a period/monthly/time of the	
month?		
	month	
9. How old are women when they start	9. How old are women when they start	
their periods?	their periods?	
10. How often do women start periods?	10. How often do women start periods?	
3. Pregnancy (the whole section) e.g., I. Reproduction (pregnancy)	3. Pregnancy (the whole section) e.g.,	I. Reproduction (pregnancy)
24. Can you tell me what being J. Consequences of getting pregnant	24. Can you tell me what being	I. Consequences of getting pregnant
		St. Sourcedactions of Perturb hindlight
pregnant means?	pregnant means?	
25. How do women become pregnant?	25. How do women become pregnant?	
26 Herri lana daga it taka firang patting		
26. How long does it take from getting		
pregnant to having baby?	pregnant to having baby?	
27. How does a woman know that she	27. How does a woman know that she	
is pregnant?		

The question 30 (C); 31 (C) were added by the researcher and it was closely based on previous research (e.g., Marsh et al., 2015; Flory et al., 2007).

C. Not making important decisions about sexual activities while affected by alcohol or drugs

The questions (30: D, F, G, H, K, L, M, N; 31: D, F, G, H, L, M, N) were developed from "Sexual Development and Behavior in Children with Autism: The Parent Perspective" designed and used by Holmes and Himle (2014).

"Sexual Development and Behavior in Children with Autism: The Parent Perspective" (Holmes and Himle, 2014).	The researcher's adapted questions:
How do you (or your partner) talk about	
sexuality with your child? Hygiene (e.g., washing genitals)	<ul><li>30. Has your child been taught the following aspects of sexuality at their school/college?</li><li>31. Do you think it is important that your child learns about the following</li></ul>
	aspects of sexuality at their school/college?
	D. Hygiene (e.g., washing private parts of the body)

How to say no if someone wants to	F. Understanding healthy/unhealthy
have sex and your child doesn't want to	relationship
What kinds of touch are okay/not okay	G. Recognising abuse in a relationship
How to report sexual abuse	H. How to deal with sexual abuse
How to deal with romantic rejection	K. Dealing with a romantic rejection
How to ask someone out on a date	L. Dating
Dating and marriage	M. Marriage
	N. Having Children

The question 30 (O, P); 31 (O, P) were added by the researcher and it was closely based on previous research (e.g., Allely & Creaby-Attwood, 2016).

- O. Consequences of watching pornography
- P. Consequences of watching child pornography

The questions (34, 34a) were added by the researcher based on the existing literature (see, e.g., Ballan, 2012; Blakely-Smith & Nichols, 2010; Tissot, 2009, Mackin et al., 2016).

34. Have you got any concerns regarding any other aspects of your child's sexuality, dating and romantic relationships?

34a. If so, what are your concerns?

The questions (35,35a,35b,36,36a,36b,36c,36d,36e,37) were added by the researcher as it is important for this study to understand what support (if any) caregivers would like to receive in order to provide better sexuality education for their children and be able to speak to them about sexuality and issues surrounding this subject (see., e.g., Holmes, et al., 2020; Ballan, 2012; Blakely-Smith & Nichols, 2010; Tissot, 2009).

35. Have you ever requested support of how to, most appropriately and effectively, speak to your child about sexuality, dating and romantic relationships?

35a. If so, what age was your child at that time when you requested the support?

35b. If so, who did you ask for support?

36. Have you ever received any support of how to, more confidently and effectively, speak to your child about sexuality, dating and romantic relationships?

36a. If so, how old was your child when you received that support?

36b. If so, who provided you with the support? (tick all that apply)

36c. What type of support have you received? (please give as much detail as possible, with examples, if possible)

36d. Was the support beneficial?

36e. If yes, in what way was it beneficial? If not, why not?

37. What kind of support would you have found/would find beneficial for you to make you feel more confident about how to speak to/ teach your child about sexuality, dating and romantic relationships?

In January 2021, followed the Interim Assessment, the researcher requested an amendment to the questionnaire for caregivers and added one question:

39. How would you describe your relationship to the child? Mother Father Other (please specify).

Based on the literature, mothers communicate with their children about sexuality differently than fathers (Diiorio et al., 2003). The existing literature on sexuality in ND young people, highlights that the majority of perspectives come from mothers, excluding parental views on the topic. In a study by Dewinter and colleagues' (2016), there is a lack of information on which parent (mother or father) completed the scale; additionally, in Teti and colleagues' (2019) study, most caregivers were mothers, hence fathers' perspectives on the topic were limited. Therefore, this additional question in the questionnaire is important in order to recognise what fathers have to say on the topic, as they also play an important role in shaping their children's attitudes towards sexuality (Wright, 2009).

Group 3: The questionnaire for young people.

The questions (1,2,3,4,5,6,7) were developed by the researcher to gather general information about participants including their gender, age, diagnosis, ethnicity and education.

The questions (8,8a,8b,8c,8d,8e,8f) were added by the researcher and they are closely based on the literature (e.g., Barkley, 2006; Nijmeijer et al., 2008, Griffiths, 2013).

8. Have you ever been provided with any interventions or educational support sessions at your school/college or outside your school/college to improve your social communication skills?

8a. If yes, what type of support have you received?

8b. If yes, who provided you with this support?

8c. Did you find that support helpful?

8d. If yes, in what way was it helpful? /If not, why not?

8e. If you have not received support, would it be helpful for you to be provided with interventions or support, which would enhance your social communication skills?

8f. What type of intervention or support would you like to receive and why?

The question (9) was adapted from "The Conflict in Adolescent Dating Relationships Inventory Short Form (CADRI) (Wolfe et al., 2001).

"The conflict in Adolescent Dating Relationships Inventory Short Form" (CADRI) (Wolfe et al., 2001).	The researcher's adapted questions:
If you have begun dating How many serious relationships have you had?	9. Have you ever dated someone or been in a romantic relationship?

The questions (10,11,12,12a) were adapted from "Illustrative Questionnaire for Interview Surveys with Young People." (Cleland et al., 2005).

"Illustrative Questionnaire for	The researcher's adapted questions:
Interview Surveys with Young People."	
(Cleland et al., 2005).	

Did you and NAME (the partner) have 10. Have you ever experienced any of any physical contact, such as holding the following romantic behaviours? hands, hugging or kissing? Holding hands with someone? Yes No Hugging/cuddling with someone? Did you ever kiss NAME on the lips? Kissing with someone on the lips? Yes No Touching/petting private parts of the Did you ever touch NAME'S body with someone? vagina/penis with your hand? Having a sexual intercourse with Yes No someone? Did you ever stroke NAME'S vagina/penis so that she/he climaxed? Yes No Did NAME ever touch your penis/vagina with her /his hand? Yes No Did NAME ever stroke your penis/vagina so that you climaxed? Yes No MALES: Did you ever put your penis inside NAME's vagina? FEMALES: Did NAME ever put his penis inside your vagina? Yes No MALES: Did you ever reach climax inside NAME'S vagina?

FEMALES: Did NAME ever reach climax	
inside your vagina?	
Yes No	
How old were you at the time you first	11. How old were you when you first
had sex with NAME (partner)?	time experienced any form of a
AGE:	romantic behaviour with another
	person?
	Less than 10 years old
	Between 10 and 13 years old
	Between 14 and 17 years old
	18 years or older
	l don't remember
	l'd prefer not to say
	(the prompts were designed based on
	the research e.g., Rokeach et al., 2018).

People may have mixed reasons for not	12. Do you have any concerns about
having intercourse. I will read out some	dating or becoming romantically
reasons. Please tell me for each reason	involved with another person?
whether it applies to you or not.	12a. If so, what are your concerns?
I don't feel ready to have sex.	
I have not had the opportunity.	
I think that sex before marriage is	
wrong	
I am afraid of getting pregnant	
I am afraid of getting HIV/AIDS or	
another sexually transmitted infection.	

The question (13) was adapted from "Sexual Development and Behavior in Children with Autism: The Parent Perspective" designed and used by Holmes and Himle (2014).

"Sexual Development and Behavior in Children with Autism: The Parent Perspective" Holmes and Himle (2014).	The researcher's adapted questions:
Please tell us about your concerns and actions taken Misinterpretation of my child's behavior as a sexual come-on, or as dangerous	13. Compared to your neurotypical peers, do you find it difficult to recognise that another person is trying to show you that they like/are attracted to you or not?

The questions (14,14a,19) were adapted from "Internet Dating Inventory" invented and utilised by Roth (2015).

"Internet Dating Inventory" (Roth,	The researcher's adapted questions:
2015).	
<ul> <li>Which of the following is not true about</li> <li>following-up with your romantic</li> <li>interest often and/or quickly with</li> <li>emails, phone calls, or requests to meet</li> <li>in person?</li> <li>You will appear desperate</li> <li>You will come off as really committed</li> <li>to the relationship</li> <li>Your romantic interest may think you</li> <li>are a "stalker"</li> <li>Your romantic interest may not know</li> </ul>	I asked the question in a much broader way. 14. Compared to your neurotypical peers, do you have any concerns about exhibiting behaviours which may be considered inappropriate when trying to show another person that you like/are attracted to them? 14a. If so, what are your concerns?
how to respond to you	
I am concerned of being taken advantage of online dating	19. Have you ever experienced cyber- bullying when online dating?
Strongly Agree	
Strongly Disagree	
Agree	

The questions (15,15a,16,16a), were developed from the "Conflict in Adolescent Dating Relationships Inventory" (CADRI; Wolfe et al., 2001), which was utilised by Rokeach and Wiener (2018).

"Conflict in Adolescent Dating Relationships Inventory" (CADRI;	The researcher's adapted questions:
Wolfe et al., 2001).	
This scale consists of many questions concerning the way partners deal with conflicts in their relationship. For example,	I wanted to ask these questions in a much broader way (due to the sensitivity of them), hence I developed questions:
During a conflict or argument with my boyfriend in the past year: 15. I threatened him in an attempt to have sex with him.	15. Have you got any concerns about how to recognise whether your dating or romantic relationship is healthy or not?
He threatened me in an attempt to have sex with me. 16. I put off talking until we calmed down. He put off talking until we calmed down	15a. If so, what are your concerns? 16. Compared to your neurotypical peers, do you feel that you may be more vulnerable to being abused by another person/your partner while dating/ in a romantic relationship?
<ul> <li>17. I insulted him with put-downs.</li> <li>He insulted me with put-downs.</li> <li>18. I discussed the issue calmly.</li> <li>He discussed the issue calmly.</li> </ul>	16a. What types of abuse by another person/your partner, might you be more vulnerable to?



The question (17) was adapted from the questions designed by Struntz and colleagues (2017) for the purpose of their research.

Struntz and colleagues (2017).	The researcher's adapted questions:
"Romantic relationships and	
relationship satisfaction among adults	
with Asperger syndrome and high-	
functioning autism."	

What prevents you from entering into a romantic relationship?

Contact with others is too exhausting for me

I haven't yet met anybody with whom I could imagine having a romantic relationship

I am afraid of not fulfilling my partner's expectations

I don't know how to meet a potential partner

I don't know how a romantic relationship works or how to behave in a romantic relationship

I don't like the physical contact a romantic relationship brings with it

Sexual activities are unpleasant for me

I simply don't feel the need for a romantic relationship

17. What barriers may be preventing you from getting involved in dating/ a romantic relationship (if you are not dating and are not in a romantic relationship)?

Contact with others is too tiring for me

I haven't yet met the right person I would like to date/ be with

I worry I may not be able to fulfil another person's/my partner's expectations

I don't know where I could meet a potential dating candidate, or potential partner

I don't understand how dating, or a romantic relationship, works or how to behave during dating, or while in a romantic relationship

I don't like the physical contact which dating, or a romantic relationship may involve

I just don't feel the need to date, or be in a romantic relationship

Other (give examples)

I don't know

I'd prefer not to say

The question (18) was adapted from the "Dyadic Adjustment Scale" (DAS; Spanier, 1976) is a self-report measure of relationship adjustment; which was utilised by Struntz and colleagues (2017).

"Dyadic Adjustment Scale" (DAS; Spanier, 1976)	The researcher's adapted questions:
In general, how often do you think	18. Are you satisfied with your current
that things between you and your partner are going well?	dating or romantic relationship (if you are dating, or are in a romantic relationship)?

The question (20) was adapted from "Illustrative Questionnaire for Interview Surveys with Young People." (Cleland et al., 2005).

"Illustrative Questionnaire for Interview Surveys with Young People." (Cleland et al., 2005).	The researcher's adapted questions:
Some schools have classes on puberty,	20. Do/Did you have sexuality
on sexual and reproductive systems and	education at your school/college?
on relationships between boys and	
girls. Did you ever attend school classes	
on any of these topics?	
Yes 1	
No 2	
Not sure 3	
Never been to school	

The questions (21, 21a,21b,21c,21d,21e,22) were added by the researcher; they are important for this study in order to understand views on sexuality education represented by young people with neurodevelopmental disorders (see e.g., Pecora, 2016; Hannah & Stagg, 2016; Mackin et al., 2016).

21. Do/did you receive the same sexuality education that all students in your school/college receive/received?
21a. If no, what sexuality education do/did you receive in your school/college?
21b. Was the sexuality education you received useful for you?
21c. If yes, what was it that you found helpful or useful? / If not, why not?
21d. Do you think the sexuality education you received could have been better?
21e. If yes, in what way?

22. How often do/did sexuality education lessons take place at your school/college?

The questions (23,24,24a,26,27,27a,27b,28,28a,28b) were added by the researcher; they are important for this study in order to understand views on sexuality education represented by young people with neurodevelopmental disorders (see e.g., Pecora, 2016; Hannah & Stagg, 2016; Mackin et al., 2016; Ballan, 2012; Blakely-Smith & Nichols, 2010; Tissot, 2009).

23. What are/were your concerns regarding learning about sexuality, dating and romantic relationships?

24. Do you have any concerns about learning about sexuality, dating and romantic relationships from the Internet?

24a. If so, what are your concerns?

26. Is there anything else you would like to learn about sexuality, dating and romantic relationships, which was not covered in the lessons you had received?

27. If you are currently a student, are there any types of technology-based support (e.g., particular applications, devices, videos, etc.) that would be beneficial for you in

terms of supporting your learning about sexuality, dating and romantic relationships in your school/college?

27a. If so, what types of technology-based support (e.g., particular applications, devices, videos, etc.) would you recommend and why?

27b. What other methods of delivery (e.g., face-to-face, individual support, group sessions etc.) of sexuality, dating and relationships education would you recommend and why?

28. If you are no longer a student, are there any types of technology-based support (e.g., particular applications, devices, videos, etc.) that you would recommend as being potentially useful for supporting individuals with autism and/or attentiondeficit/hyperactivity disorder in their learning about sexuality, dating and romantic relationships in school/college?

28a. If yes, what kind of technology-based support would you recommend?

28b. If yes, why do you think what you have recommended above might be useful for supporting individuals with autism and/ or attention-deficit/hyperactivity disorder in their learning about sexuality, dating and romantic relationships in school/college?

The questions (25: A, B, E, I, J) were developed from the "General Sexual Knowledge Questionnaire" (GSKQ; Talbot and Langdon 2006), which was utilised by Hartmann and colleagues (2019).

"General Sexual Knowledge	The researcher's adapted questions:
Questionnaire" (GSKQ; Talbot and Langdon 2006).	25. Have you been taught the following aspects of sexuality at your school/college?

4. Contraception (the whole section),	A. Use contraception (e.g., condoms,
e.g.,	contraceptive pill, etc.)
32. Can you tell me what contraception/birth control is?	
5. Sexually transmitted diseases (the whole section) e.g.,	B. Sexually transmitted infections (STI's)
37. What is an STD/STI/Venereal disease?	
1b. Physiology questions:	E. Menstruation (menstrual periods);
8. What is a period/monthly/time of the month?	
9. How old are women when they start	
their periods?	
10. How often do women start periods?	
3. Pregnancy (the whole section) e.g.,	I. Reproduction (pregnancy)
24. Can you tell me what being pregnant means?	J. Consequences of getting pregnant
25. How do women become pregnant?	
26. How long does it take from getting pregnant to having baby?	
27. How does a woman know that she is pregnant?	

The question 25 (C) was added by the researcher and it was closely based on previous research (e.g., Marsh et al., 2015; Flory et al., 2007).

C. Not making important decisions about sexual activities while affected by alcohol or drugs

The questions (25: D, F, G, H, K, L, M, N) were developed from "Sexual Development and Behavior in Children with Autism: The Parent Perspective" designed and used by Holmes and Himle (2014).

"Sexual Development and Behavior in Children with Autism: The Parent Perspective" (Holmes and Himle, 2014).	The researcher's adapted questions:
How do you (or your partner) talk about	25. Have you been taught the following
sexuality with your child?	aspects of sexuality at your
Hygiene (e.g., washing genitals)	school/college?
	D. Hygiene (e.g., washing private parts
	of the body)
How to say no if someone wants to	F. Understanding healthy/unhealthy
have sex and your child doesn't want to	relationship
What kinds of touch are okay/not okay	G. Recognising abuse in a relationship
How to report sexual abuse	H. How to deal with sexual abuse
How to deal with romantic rejection	K. Dealing with a romantic rejection
How to ask someone out on a date	L. Dating
Dating and marriage	M. Marriage

N. Having children

The question 25 (O, P) was added by the researcher and it was closely based on previous research (e.g., Allely & Creaby-Attwood, 2016).

O. Consequences of watching pornography

P. Consequences of watching child pornography

In January 2021, followed the Interim Assessment, the researcher has made small modifications to the three questionnaires by adding a neurotypical group to questions (as appropriate).

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#### Appendix 5: Example of A Participants Information Sheet and Consent Form



# **Participant Information Sheet**

#### **Research Question:**

## Exploring Experience of Romantic Relationships and Sexuality Education In Young People. Perspectives from Caregivers, Educational Professionals and Young Adults

I would like to invite you to take part in my research study. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Feel free to ask questions or contact me if anything you read is not clear or would like more information. Take time to decide whether or not to take part.

#### What is the main purpose of this study?

To investigate your perspectives on:

- experiences of your romantic relationships and dating
- your sexuality knowledge and sexuality understanding
- sexuality education you receive in your school/college
- your recommendations on support/interventions you would like to receive in order to improve (if needed) your sexuality knowledge and understanding

#### Why have I been invited?

You are an individual between 18-25 years old who is neurotypical (TD) (has not been diagnosed with any neurodevelopmental conditions) or has a diagnosis of ASD or ADHD or ASD co-occurring with ADHD.

A total of 10-12 young people will be invited to participate in the semi-structured interviews per each of the subgroup (ASD, ADHD, ASD co-occurring with ADHD, Neurotypical [TD]).

#### Do I have to take part?

Taking part in this study is completely voluntary hence you can decide whether you would like to participate in it or not. Note, you are free to withdraw from the research within three weeks from the completion of the semi-structured interview. After three weeks, the data analysis will have begun and no removal from the study will be possible. You may request the withdrawal from the study by notifying the researcher about it via the university email. Any data collected from you will be removed from the researcher's files.

#### What will happen to me if I take part?

The study involves participating in a semi-structured interview, which means the researcher will be asking you open-ended questions on the research topic (e.g., I would like to start by learning a bit about your experiences with relationship and sex education...Do/Did you have a relationship and sex education in your school/college? (If you did not have a relationship and sex education in your school/college, who/what places provide/provided you with relationship and sex education?)/ How useful is/was the relationship and sex education you receive/received in terms of giving you the right tools and information for building and maintaining romantic relationships?).

The semi-structured interview may last around 30-60 minutes. You will be asked around ten open-ended questions regarding the research topic.

The semi-structured interview will be conducted online via Microsoft Teams (however, you may choose to keep the camera off during the recording) or over the phone. You will be given the opportunity to decide which of these two options you would prefer. On the semi-structured interview day, the researcher will describe in detail the purpose of this study and you will be informed about your rights under the British Psychological Society's Code of Ethics. Prior to the semi-structured interview, you will be asked to sign the consent form and give some very brief

background information on your demographics (e.g., your age, gender); you will be asked to send this information via email to the researcher.

The semi-structured interview will be recorded either online via Microsoft Teams or on a Dictaphone if conducted over the phone. As soon as possible, after the completion of the semistructured interview, the recordings will be transferred into the researcher's private computer with a password to access it, as well as on the University One Drive, which will be available only to the researcher. The researcher's supervisors will be the only other people who will be given access to this data if requested. Subsequently, all the recorded data will be deleted from Microsoft Teams recording and the Dictaphone.

#### What are the disadvantages and risks of taking part?

This project may include sensitive questions, thus there is a risk of feeling distressed or uncomfortable. You may request to pause or stop the semi-structured interview at any point if you feel distressed or too uncomfortable to continue. A list of independent support services is given at the bottom of this sheet in case you would need professional assistance.

#### What are the possible benefits of taking part?

The researcher cannot promise the study will help you, however, your participation will contribute to a better understanding of the importance of sexuality education for neurodivergent young individuals. This may benefit mental health services, health education and the criminal justice system, as well as the individuals themselves.

#### What if there is a problem?

Should you have any concerns about the research, please do not hesitate to contact the researcher (M.P.Smusz@edu.salford.ac.uk) and she will do her best to answer your questions. Alternatively, you may contact the supervisory team: : Dr Clare Allely (c.s.allely@salford.ac.uk), Dr Amy Bidgood (a.bidgood@salford.ac.uk) or Dr Mariyana Schoultz (M.Schoultz@salford.ac.uk). Complaints should be addressed to Professor Andrew Clark, Chair of the Health Research Ethical Approval Panel, Allerton Building, Frederick Road Campus, University of Salford, Salford, M6 6PU. Tel: 0161 295 4109. E: a.clark@salford.ac.uk

#### Will my part in the study will be kept confidential?

It will be ensured that all data and information provided during the semi-structured interview will be strictly confidential and the privacy of the participants will be respected according to the Data Protection Act 1988 and The University of Salford General Data Protection Regulation (GDPR). However, the researcher will have grounds for disclosure to the relevant authority in exceptional circumstances under which there appears to be sufficient evidence to raise a concern about your safety; the safety of other persons who may be endangered by your behaviour; or the health, welfare, or safety of children or vulnerable adults. The above is under section 1.2 (vi) of the BPS Code of Ethics and Conduct (2018). Additionally, the researcher will keep your name on the list and will assign a number to it, which will be known only to the researcher and which will ensure that your identity remains confidential. All collected data will be stored on the researcher's private computer, which is protected by a password known only to the researcher, as well as on the University One Drive. The researcher's supervisory team will be the only other people who will be given access to this data if requested. All data stored on the researcher's private computer, as well as on the University One Drive, will remain confidential and nothing will be published that would enable anyone to identify you. Additionally, the collected data will be stored in the Data Archive\* United Kingdom (UK).

#### What will happen if I don't carry on with the study?

You are free to withdraw from the semi-structured interview within three weeks of completing it. You may request the withdrawal from the study by notifying the researcher about it via the university email. Your data will be removed and not included in any disseminated output. There will not be any further consequences due to your removal.

#### What will happen to the results of the study?

The results of the study will be used to complete the research question and write a PhD dissertation. Additionally, results might be shared in conference presentations and journal articles.

All your data will remain confidential, and nothing will be published that would enable anyone to identify you. The results will be seen by the supervisors. If you wish to see the results, you will be able to do so on the completion of the research. You will need to contact the researcher via their university email address and request a copy of the results.

#### Who has reviewed the project?

The research project has been reviewed and approved by the Research, Enterprise and

Engagement Ethical Approval Panel.

#### Further information and contact details:

Should you require any further information please contact the primary researcher:

Magdalena Smusz, M.P.Smusz@edu.salford.ac.uk

#### Alternatively, you may contact the supervisory team:

c.s.allely@salford.ac.uk

a.bidgood@salford.ac.uk

M.Schoultz@salford.ac.uk

#### The List of Independent Support Organisations in the UK

#### National Autistic Society Manchester:

https://www.autism.org.uk/services/england/manchester.aspx email: supportercare@nas.org.uk. tel.nr: 0808 800 4104. or: 0808 800 1050

#### CABA Helping People with Autism:

https://www.caba.org.uk/help-and-guides/information/support-people-autism email: enquiries@caba.org.uk tel.nr: +44 (0) 1788 556 366

#### UKAP The UK ADHD Partnership:

https://www.ukadhd.com/what-is-ukap.htm email: addup@addup.co.uk

#### MADDchester:

http://www.maddchester.com/ email: contact@maddchester.com

#### Young Minds:

YoungMinds - children and young people's mental health charity Call for free on 0808 802 5544 (9:30am - 4pm, Mon - Fri)

#### Mental Health UK:

Supporting young people - Mental Health UK (mentalhealth-uk.org) Tel. Nr 0121 522 7007 (10am-4pm Mon-Fri (excluding bank holidays)

#### Brook: your free & confidential sexual health & wellbeing experts:

Brook – Healthy lives for young people Victim Support call 0800 123 6600 / online chat (all-age)

#### Relate (the relationship people):

Help for Children & Young People – Family & Relationship Help | Relate Contact us | Relate

# <u>SupportLine is particularly aimed at those who are isolated, at-risk, vulnerable and</u> victims of any form of abuse:

Helpline: 01708 765200 (hours vary so ring for details) Admin: 01708 765222 Email: info@supportline.org.uk

#### Manchester City Council: Sexual Health:

Sexual health | Sexual health | Manchester City Council To report abuse, neglect, or a vulnerable person at risk: 0161 234 5001

#### Fresh4Manchester:

Home - Fresh4Manchester CALL US NOW ON 0161 701 1555

#### STOP IT NOW; Helping Prevent Child Sexual Abuse:

https://www.stopitnow.org.uk/ Tel.nr: 0808 1000 900

STOP IT NOW is a charity in the UK that offers information and support for individuals who may have experience of illegal online sexual behaviour involving children (e.g., any type of pornography) and who would like to receive support for how to change these behaviours. The charity also provides support for families and friends and of these individuals; additionally, it helps people cope with difficult emotions and the professionals who work with these groups.

\* The UK Data Archive is a national centre of expertise in data archiving in the United Kingdom. It houses the largest collection of digital data in the social sciences and humanities in the UK. It is certified under the Data Seal of Approval as a trusted digital repository (<u>https://www.data-archive.ac.uk/</u>).



#### **Consent Form**

#### **Research title:**

Exploring Sexuality Knowledge and Experience of Romantic Relationships in Autistic Adolescents and Young Adults, and Adolescents and Young Adults with Attention-Deficit/Hyperactivity Disorder, and Autism Spectrum Disorder co-occurring with Attention-Deficit/Hyperactivity Disorder. Perspectives from Caregivers, Educational Professionals and Adolescents and Young Adults

Please complete this consent form after you have read and understood the Participant Information Sheet.

Please tick the appropriate boxes (YES -Y; No-N)	Yes	No
I confirm that I have read the Participant Information Sheet for the		
above study and that I have had the opportunity to consider the		
information, ask questions and have had these answered		
satisfactorily.		
I understand that the semi-structured interview will be audio-		
recorded on Microsoft Teams, however, I may choose to switch my		
camera off during the recording; or recorded on the Dictaphone if		
conducted via a telephone. I will have the opportunity to choose		
the option.		
I understand that this project may include highly sensitive		
questions, however, I may request to pause or stop participating in		
the semi-structured interview at any point if I feel distressed or too		
uncomfortable to continue.		
I understand that if I reveal any information which may raise		
concerns about my safety or the safety of others, the researcher		
will have to inform appropriate authorities about it.		
I understand that my participation is voluntary, and I will be able to		
withdraw from the semi-structured interview within three weeks		
of completing it. I must request my withdrawal from the study by		
notifying the researcher about it via the university email. My data		
will then be removed and not included in any disseminated output.		

I understand that the information collected in this semi-structured interview will be confidential and nothing will be published that would enable anyone to identify me.	
I understand that the information collected in this semi-structured interview will be used to write a PhD dissertation and it may also be used to support other research in the future and may be shared	
anonymously with other researchers.	

Name.....

Signature.....

Please email this form to:

M.P.Smusz@salford.ac.uk to confirm you wish to take part in the study.

#### Appendix 6: Ethics Application Approval Letter for the Pilot Study and Study 2: Surveys



Knowledge Exchange,

3 November 2020

Research, Enterprise and Engagement Ethical Approval Panel

Doctoral & Research Support Research and

Room 827, Maxwell Building, University of Salford, Manchester M5 4WT T +44(0)161 295 2280 <u>www.salford.ac.uk</u> Dear Magdalena,

#### RE: ETHICS APPLICATION-HSR1920-073 - Exploring Sexuality Knowledge and Experience of Romantic Relationships in Adolescents and Young Adults with Neurodevelopmental Disorders. Perspectives from Caregivers, Educational Professionals and Adolescents and Young Adults with Neurodevelopmental Disorders.

Based on the information you provided, I am pleased to inform you that application HSR1920-073 has been approved.

If there are any changes to the project and/or its methodology, then please inform the Panel as soon as possible by contacting <u>Ethics@salford.ac.uk</u>

Yours sincerely,

Dr. Stephen Pearson Deputy Chair of the Research Ethics Panel

Application Amendment Approval Study 2: Quantitative Research

## Amendment Notification Form\_ HSR1920-073\_September2021

#### **Title of Project:**

Exploring Sexuality Knowledge and Experience of Romantic Relationships in Adolescents and Young Adults with Autism Spectrum Disorder, Attention-Deficit/Hyperactivity Disorder, and Autism Spectrum Disorder co-occurring with Attention-Deficit/Hyperactivity Disorder. Perspectives from Caregivers, Educational Professionals and Adolescents and Young Adults

|--|

Magdalena Smusz	Health & Society			
Are you the original Principal I	nvestigator (PI) for this stu	dy? Yes		
If you have selected 'NO', please explain why you are applying for the amendment:				
Date original approval	Reference	Externally funded		
obtained:	No:	project?		
03/11/2020	HSR1920-073	No		
Please outline the proposed ch	• • • •			
amendments to the PIS, Consent Form(		then please submit these		
with this form highlighting where the c	nanges have been made:			
researcher has identified a few aspects		there was limited numbers		
of completed questionnaires. Across the and young people), some participants to (e.g., Q21a, Q21b, 21c etc.), which mig participants preferred to answer only to researcher had a meeting with Autismo September to discuss the questionnaires questionnaires simpler (including langu researcher has already addressed) and ended questions. The group has also su research, for instance, the adult diagno	s which might suggest why ne three groups (educational tended to omit additional of the short-answer questions @Manchester Expert by Ex- es' design. The group has a uage at some points in the of the researcher has remove uggested further avenues to postic services. I was also adv	there was limited numbers al professionals, caregivers open-ended (sub) question res were too long and . Additionally, the perience Group on 21 <sup>st</sup> lso advised to make the questionnaires, which the ed all the additional open- o advertise these types of		
researcher has identified a few aspects of completed questionnaires. Across th and young people), some participants t (e.g., Q21a, Q21b, 21c etc.), which mig participants preferred to answer only t researcher had a meeting with Autism( September to discuss the questionnaire questionnaires simpler (including langu researcher has already addressed) and ended questions. The group has also su research, for instance, the adult diagno participants that the questionnaires we The new questionnaires will be left in the new questionnaires, the rest green are very small alteration made to	s which might suggest why the three groups (educational tended to omit additional of the indicate the questionnal the short-answer questions @Manchester Expert by Ex- es' design. The group has a uage at some points in the of the researcher has remove uggested further avenues to ostic services. I was also adver ere anonymous. shorter, the highlighted in t of the questions will be re	there was limited numbers al professionals, caregivers open-ended (sub) question res were too long and . Additionally, the perience Group on 21 <sup>st</sup> lso advised to make the questionnaires, which the ed all the additional open- o advertise these types of vised to make it clear to all yellow questions will be moved. Highlighted in		

green are very small alteration made to a few questions in the questionnaires. The researcher has also written in bold in all three questionnaires that the questionnaire is anonymous to ensure that participants are aware of it (on the previous version of the questionnaires this information was written in small letters).

#### **Questionnaire 1: Educational professionals:**

The researcher has provided additional information at the beginning of the questionnaire referring to the used terminology:

"In addition, the researcher will be using the term "autistic" when referring to autistic individuals since identity first language is preferable by the majority of the autistic population in the UK (Kenny et al., 2016)."

The kept questions in the questionnaire will be as follows (the rest will be removed): All questions (Q1-5) about demographics, then:

6. Does your school/college provide students, in the following categories, with any

interventions or educational support sessions to improve their social communication skills?

(tick one response per category)

7. Have your students, in the following categories, ever talked to you about their

dating or romantic experiences? (tick one response per category)

8. Have your students, in the following categories, ever talked to you about

encountering any challenges while dating or being in a romantic relationship? (tick one

response per category)

9. Do you have any concerns about your students, in the following categories, dating or becoming romantically involved with another person? (tick one response per category)

10. In your experience, do you have any concerns about the abilities of your students, in the following categories, to recognise that someone likes/is attracted to them or not? (tick one response per category)

11. In your experience, do you have any concerns about your students', in the following categories, abilities to recognise whether their dating or romantic relationship is healthy or not? (tick one response per category)

12. Do you think that students, in the following categories, may be more vulnerable, than other people their age, to being abused by another person/their partner while dating/being in a romantic relationship? (tick one response per category) 13. In your experience, typically, what barriers may be preventing some of your

students, in the following categories, from getting involved in dating or romantic

relationships? (tick one response per category)

14. In your experience, do some of your students, in the following categories, fear

dating or romantic relationships? (tick one response per category)

15. In your experience, do you have any concerns about your students, in the following categories, (exhibiting was replaced with showing) showing behaviours that may be perceived as inappropriate when trying to show another person that they like them/are attracted to them? (tick one response per category

16. Do you think your students, in the following categories, may be more vulnerable,

than other people their age, to experiencing cyber-bullying when online dating? (tick one

response per category)

17. Do you think that students, in the following categories, may be more vulnerable,

than other people their age, to sexual grooming when online dating? (tick one response per

category)

19. Do you have any concerns about your students, in the following categories,

learning about sexuality, dating and romantic relationships from the Internet? (tick one

response per category)

20. Have your students, in the following categories, been taught the following

aspects of sexuality at your school/college? (tick one response per category)

22. In your experience, do you think your students, in the following categories, have

good knowledge about sexual health? (tick one response per category)

23. Is there any type of technology-based support (e.g., particular applications,

devices, videos, etc.) that, in your opinion, would help students, in the following categories,

learn about sexuality, dating and romantic relationships? (tick one response per category)this question was altered to the one below:

Would technology-based support (e.g., particular applications, devices, videos, etc.) help students, in the following categories, learn about sexuality, dating and romantic relationships? (tick one response per category)

25. How often do sexuality education lessons take place at your school/college?

26. In your experience, do you think that the current sexuality education at your school/college is appropriate for students in the following categories? (tick one response per category)

28. Do you think it is/would be beneficial to tailor sexuality education specifically for students in the following categories? (tick one response per category)

29. Does your school/college collaborate with parents/carers with regards to sexuality education for their children in the following categories? (tick one response per category)

30. Do you feel your school has equipped you with the necessary skills and materials to teach students, in the following categories, about sexuality, dating and romantic relationships? (tick one response per category)

#### **Questionnaire 2: Caregivers:**

The kept questions in the questionnaire will be as follows (the rest will be removed): All questions (Q1-7) about demographics, then:

8. Has your child ever been provided with any additional interventions or educational support sessions within or outside their school/college to improve their social communication skills? 9. Has your child ever dated someone or been in a romantic relationship?

10. Has your child ever talked to you about their dating or romantic relationship experiences?

11. Has your child ever talked to you about any challenges they have encountered while dating or being in a romantic relationship?

12. Do you have any concerns about your child dating or becoming romantically involved with another person in the future (if they are not dating or are not romantically involved with anyone yet)?

13. Do you have any concerns about your child's ability to recognise that someone likes/is attracted to them or not?

14. Do you have any concerns about your child's ability to recognise whether their dating or romantic relationship is healthy or not?

15. Do you think that your child may be more vulnerable, than other people their age, to being abused by another person/their partner while dating/being in a romantic relationship?

16. What barriers do you think may be preventing (or will prevent) your child from getting involved in dating or romantic relationships?

17. Does your child fear, or are they particularly anxious about dating, or romantic relationships?

18. Do you have any concerns about your child (exhibiting with be replaced with showing) showing behaviours that may be perceived as inappropriate when trying to show that they like/are attracted to another person?

19. Do you think your child may be more vulnerable, than other people their age, to experiencing cyber-bullying when online dating?

20. Do you think your child may be more vulnerable, than other people their age, to sexual grooming when online dating?

22. Does/Did your child have sexuality education in their school/college?

24. How often do/did sexuality education lessons take place at your child's school/college?

26. Do you think it would be beneficial if sexuality education were tailored specifically for (young people with autism spectrum disorder was replaced with autistic young people) autistic young people and/or young people with attention-

deficit/hyperactivity disorder in schools/colleges?

27. Does/did your child's school/college collaborate with you with regards to the sexuality education for your child?

28. Do you think that schools/colleges should collaborate with parents with regards to sexuality education for their children?

29. Do you have any concerns about your child learning about sexuality, dating and romantic relationships from the Internet?

30. Has your child been taught the following aspects of sexuality at their school/college? (tick one response per category)

33. Is there any type of technology-based support (e.g., particular applications, devices, videos, etc.) that you feel would be beneficial for your child in terms of supporting their learning about sexuality, dating and romantic relationships? -This question was altered to:

videos, etc.) be beneficial for your child in terms of supporting their learning about sexuality,

dating and romantic relationships?

36. Have you ever received any support for how to speak more confidently and

effectively to your child about sexuality, dating and romantic relationships?

39. How would you describe your relationship to the child?

#### Questionnaire 3: Young adults:

The kept questions in the questionnaire will be as follows (the rest will be removed): All questions (Q1-7) about demographics, then:

8. Have you ever been provided with any interventions or educational support sessions at your school/college or outside your school/college to enhance your social communication skills?

9. Have you ever dated someone or been in a romantic relationship (had a partner, a boyfriend or a girlfriend)?

10. Have you ever experienced any of the following ("romantic" will be removed) behaviours? (tick one response per category)

12. Do you have any concerns about dating or becoming romantically involved with another person?

13. Do you find it difficult to recognise whether another person is trying to show you that they like/are attracted to you or not?

14. Do you have any concerns about (exhibiting with be replaced with showing) showing behaviours that may be considered inappropriate when trying to show another person that you like/are attracted to them?

15. Have you got any concerns about how to recognise whether your dating or romantic relationship is healthy or not?

16. Do you feel that you may be more vulnerable, than other people your age, to being abused by another person/your partner while dating/ in a romantic relationship?

17. What barriers may be preventing you from getting involved in dating/a romantic relationship (if you are not dating and are not in a romantic relationship)?

19. Have you ever experienced cyber-bullying when online dating?

20. Do/Did you have sexuality education at your school/college?

22. How often do/did sexuality education lessons take place at your school/college?

24. Do you have any concerns about learning about sexuality, dating and romantic relationships from the Internet?

25. Have you been taught the following aspects of sexuality at your school/college? (tick one response per category)

28. If you are no longer a student, are there any types of technology-based support (e.g., particular applications, devices, videos, etc.) that you would recommend as being potentially useful for supporting young individuals in their learning about sexuality, dating and romantic relationships in school/college? – this question would be modified to:

Would technology-based support (e.g., particular applications, devices, videos, etc.) be beneficial for you in terms of supporting your learning about sexuality, dating and romantic relationships in your school/college?

The researcher would also like to add information to the recruitment; she will be also advertising the study in adult diagnostic services (e.g., Axia ASD (independent diagnosticians, contracted for adult non-LD diagnosis in Salford; Trafford Extended Services (part of GMMH, providing diagnostic services to Trafford, Bolton and Manchester) and sexual health organisations (e.g., charities, support groups, for instance "British Association for Sexual Health and HIV", "Sexual advice association"). The researcher might also be going to schools/colleges (rather than conducting the recruitment only online) if the situation with COVID 19 permits and the researcher, as well as the headteacher of a particular school/college, feel safe and good about face-to-face contact.

Appropriate changes regarding the number of the questions in the questionnaires and approximate timing to complete the questionnaires were provided in the Participants Information Sheets (PIS) for all three groups of participants. The researcher has also made minor amendment to the topic in the PIS and Consents forms for all participants with regards to terminology (she replaced "people with Autism Spectrum Disorder" with autistic people).

"Exploring Sexuality Knowledge and Romantic Relationships in Autistic Adolescents and Young Adults and Adolescents and Young Adults with Attention-Deficit/Hyperactivity Disorder, and Autism Spectrum Condition co-occurring with Attention-Deficit/Hyperactivity Disorder. Perspectives from Caregivers, Educational Professionals and Adolescents and Young Adults" The advert (flyer) of the study has also been amended (see Appendix 4 in the application).

Please say whether the proposed changes present any new ethical issues or changes to ethical issues that were identified in the original ethics review, and provide details of how these will be addressed:

No

 Amendment Approved:
 YES
 Date of Approval:
 19/10/2021

Chair's SUN

Once completed you should submit this form and any additional documentation to the RKE Ethics Team at <a href="mailto:ethics@salford.ac.uk">ethics@salford.ac.uk</a>

**Appendix 7: Ethics Application Approval Letter Study 3: Interviews** 

Research, Enterprise and Engagement Ethical Approval Panel

Doctoral & Research Support

M5 4WT

T +44(0)161 295 2280

www.salford.ac.uk



Research and Knowledge Exchange, Room 827, Maxwell Building, University of Salford, Manchester

5 August 2021

Dear Magdalena,

<u>RE:</u> ETHICS APPLICATION–HSR1920-074 – Social and Romantic Relationships of Adolescents and Young Adults with Neurodevelopmental Disorders. Accounts from Caregivers, Educational Professionals and Adolescents and Young Adults with Neurodevelopmental Disorders.

Based on the information that you have provided I am pleased to inform you that application HSR1920-074 has been approved.

If there are any changes to the project and/or its methodology, then please inform the Panel as soon as possible by contacting <u>Ethics@salford.ac.uk</u>

Yours sincerely,

Soll

Professor Andrew Clark Chair of the Research Ethics Panel

Appendix 8. Short Versions of The Surveys; Study 2: Surveys

**Educational Professionals** 



## Questionnaire

## This is an anonymous questionnaire

Please do not write your name, or any identifying information in your responses.

Please ensure that you have read the *Participant Information Sheet* before completing this

questionnaire as it explains the purpose of this research.

# By completing and returning this questionnaire you indicate your consent to participate in this research.

This questionnaire contains questions about romantic relationships, sexuality, sexual behaviours, *sexuality education*\* and sexual knowledge of your students who may be neurotypical (TD) (have not got any neurodevelopmental conditions) or may have autism spectrum disorders (ASD) and/or attention-deficit/hyperactivity disorder (ADHD). For the purpose of this research, the researcher has adopted the terminology from the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) (APS,2013) and will be using it throughout the questionnaire. In addition, the researcher will be using the term "autistic" when referring to autistic individuals since identity first language is preferable the majority of the autistic population in the UK (Kenny et al., 2016).

Some questions may not apply to you, but in the interest of good research it is beneficial to ask these questions.

If you would like to receive a paper copy of the questionnaire, please send an email to:

xxx@edu.salford.ac.uk

\*"Comprehensive sexuality education covers the same topics as sex education but also includes issues such as relationships, attitudes towards sexuality, sexual roles, gender relations and the social pressures to be sexually active, and it provides information about sexual and reproductive health services." (Leung et al., 2019).

#### 1. What is the age range of the students that you teach?

13-18 years old

18-25 years old

Other (please give the range)

2. Do you have experience teaching students with the following conditions? (tick one or more)

Autism Spectrum Disorder (ASD) (this may include, Asperger's Disorder, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder Not Otherwise Specified)

Attention-Deficit/Hyperactivity Disorder (ADHD)

ASD co-occurring with ADHD

I teach neurotypical (TD) students (they have not been diagnosed with any neurodevelopmental conditions)

#### 3. What type of school/college are your students attending?

Mainstream school/college

Mainstream school/college, with extra support from teaching support staff for students with neurodevelopmental conditions such as autism and attention-deficit/hyperactivity disorder

Special needs school/college (non-residential)

Special needs boarding school/college/residential special school/college

Other: \_\_\_\_\_

4. If you have been teaching (students with autism spectrum disorder was replaced with autistic students where suitable throughout the questionnaire) autistic students and/or students with attention-deficit/hyperactivity disorder; Approximately, in total, for how many years have you been teaching autistic students and/or students with attention-deficit/hyperactivity disorders and/or students with attention-deficit/hyperactivity disorder and/or students with attention-deficit/hyperactivity disorder? (please give the number)

5. If you have been teaching autistic students and/or attention-deficit/hyperactivity disorder; On average, what is the total number of autistic students and/or attentiondeficit/hyperactivity disorder that you teach across all year groups from September to September (please give the number)

6. Does your school/college provide students, in the following categories, with any interventions or educational support sessions to improve their social communication skills? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes, they receive the same support provided to all students where I teach				
Yes, they receive additional support to what is provided to all students where I teach				
No				
I don't know				
I'd prefer not to say				

#### 7. Have your students, in the following categories, ever talked to you about their dating or

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
l don't remember				
l'd prefer not to say				

#### 8. Have your students, in the following categories, ever talked to you about encountering any

#### challenges while dating or being in a romantic relationship? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
l don't remember				
I'd prefer not to say				

9. Do you have any concerns about your students, in the following categories, dating or becoming romantically involved with another person? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
l don't remember				
l'd prefer not to say				

10. In your experience, do you have any concerns about the abilities of your students, in the following categories, to recognise that someone likes/is attracted to them or not? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				Disorder
No				
l don't remember				
I'd prefer not to say				

11. In your experience, do you have any concerns about your students', in the following categories, abilities to recognise whether their dating or romantic relationship is healthy or not? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

12. Do you think that students, in the following categories, may be more vulnerable, than other people their age, to being abused by another person/their partner while dating/being in a romantic relationship? (tick one response per category)

	Neurotypical	Students	Students	Students
	students	with Autism	with	with Autism
	(students	Spectrum	Attention-	Spectrum
	with no	Disorder	Deficit/Hyper	Disorder
	diagnosis of		activity	co-occurring
	ASD or		Disorder	with
	ADHD)			Attention-
				Deficit/Hyper
				activity
				Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

13. In your experience, typically, what barriers may be preventing some of your students, in the following categories, from getting involved in dating or romantic relationships? (tick one response per category)

Neurotypical students	Students with	Students with	Students with Autism
(students with no diagnosis of ASD or ADHD)	Autism Spectrum Disorder	Attention- Deficit/Hyper activity Disorder	Spectrum Disorder co-occurring with Attention- Deficit/Hyper
			activity Disorder
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romantic		
relationship		
They don't		
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physical		
contact		
which dating,		
or a romantic		
relationship		
may involve		
They just		
don't feel the		
need to date,		
or be in a		
romantic		
relationship		
Other (give		
examples)		
None		
I don't know		
I'd prefer not		
to say		

# 14. In your experience, do some of your students, in the following categories, fear dating or

#### romantic relationships? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

15. In your experience, do you have any concerns about your students, in the following categories, showing behaviours that may be perceived as inappropriate when trying to show another person that they like them/are attracted to them? (tick one response per category

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity
Yes				Disorder
No				
I don't know				
I'd prefer not				
to say				

16. Do you think your students, in the following categories, may be more vulnerable, than other people their age, to experiencing cyber-bullying when online dating? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

17. Do you think that students, in the following categories, may be more vulnerable, than other people their age, to sexual grooming when online dating? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

# 18. Do you have any concerns about your students, in the following categories, learning about sexuality, dating and romantic relationships from the Internet? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
l don't know				
l'd prefer not				
to say				

19. Have your students, in the following categories, been taught the following aspects of sexuality at your school/college? (tick one response per category)

	stu (stu no	Neurotypical students (students with no diagnosis of ASD or ADHD)		studentsAutism(students withSpectrumno diagnosis ofDisorder			Students with Attention- Deficit/Hypera ctivity Disorder			Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyperacti vity Disorder		
	Y e s	N O	l do n't kn	Y e s	N O	l do n't kn	Y e s	N O	l do n't kn	Y e s	N O	l don' t kno
A. Using contrac eption (e.g., condo ms, contrac eptive pill, etc.) B. Having tests for sexuall y transmi tted infectio ns (CTI'a)			ow			ow			ow			W
(STI's) C. Not making import ant decisio ns about sexual activiti												

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# 20. In your experience, do you think your students, in the following categories, have good

## knowledge about sexual health? (tick one response per category)

Neurotypical	Students	Students	Students	
students	with Autism	with	with Autism	

	(students with no diagnosis of ASD or ADHD)	Spectrum Disorder	Attention- Deficit/Hyper activity Disorder	Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

21.Would technology-based support (e.g., particular applications, devices, videos, etc.) help students, in the following categories, learn about sexuality, dating and romantic relationships? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

#### 22. How often do sexuality education lessons take place at your school/college?

Once a month

Twice a month

Once a week

Twice a week

I don't know

I'd prefer not to say

#### 23. In your experience, do you think that the current sexuality education at your

school/college is appropriate for students in the following categories? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
l'd prefer not				
to say				

# 24. Do you think it is/would be beneficial to tailor sexuality education specifically for students in the following categories? (tick one response per category)

Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper
-------------------------------------------------------------------------------------	-------------------------------------------------	-------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------

		activity Disorder
Yes		
No		
I don't know		
l'd prefer not to say		
to say		

25. Does your school/college collaborate with parents/carers with regards to sexuality education for their children in the following categories? (tick one response per category)

	Neurotypical students (students with no diagnosis of ASD or ADHD)	Students with Autism Spectrum Disorder	Students with Attention- Deficit/Hyper activity Disorder	Students with Autism Spectrum Disorder co-occurring with Attention- Deficit/Hyper activity Disorder
Yes				
No				
I don't know				
I'd prefer not				
to say				

26. Do you feel your school has equipped you with the necessary skills and materials to teach students, in the following categories, about sexuality, dating and romantic relationships? (tick one response per category)

N	Neurotypical	Students	Students	Students
S	tudents	with Autism	with	with Autism
(	students	Spectrum	Attention-	Spectrum
v	vith no	Disorder	Deficit/Hyper	Disorder
d	liagnosis of		activity	co-occurring
A	ASD or		Disorder	with
A	ADHD)			Attention-
				Deficit/Hyper
				activity
				Disorder

Yes		
No		
I don't know		
I'd prefer not		
to say		

If there is anything else you think might be relevant for the study and you would like to share with us, please leave it here.

Also, if there are any questions not asked in this questionnaire and you may deem important, please write them here.

Leung, H., Shek, D. T., Leung, E., & Shek, E. Y. (2019). Development of contextually relevant sexuality education: lessons from a comprehensive review of adolescent sexuality education across cultures. *International journal of environmental research and public health*, *16*(4), 621.

American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. Arlington, VA: American Psychiatric Association.

Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., & Pellicano, E. (2016). Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism*, 20(4), 442-462.

#### THANK YOU VERY MUCH FOR TAKING TIME TO COMPELTE THIS QUESTIONNAIRE.



Exploring Sexuality Knowledge and Experience of Romantic Relationships in Adolescents and Young Adults with Autism Spectrum Disorder, Attention-Deficit/Hyperactivity Disorder, and Autism Spectrum Disorder co-occurring with Attention-Deficit/Hyperactivity Disorder. Perspectives from Caregivers, Educational Professionals and Adolescents and Young Adults

### **Participant Debrief Sheet**

Thank you for completing this questionnaire. We hope that you have found it interesting and have not been upset by any of the questions. However, if any part(s) of this questionnaire has made you feel upset or distressed in any way and you would wish to speak to someone about it, you may contact the independent <u>organisations listed below:</u>

#### Young Minds

YoungMinds - children and young people's mental health charity

Call for free on 0808 802 5544 (9:30am - 4pm, Mon - Fri)

#### Mental Health UK

Supporting young people - Mental Health UK (mentalhealth-uk.org)

Tel. Nr 0121 522 7007 (10am-4pm Mon-Fri (excluding bank holidays)

#### Brook : YOUR FREE & CONFIDENTIAL SEXUAL HEALTH & WELLBEING EXPERTS

Brook – Healthy lives for young people

• Victim Support call 0800 123 6600 / online chat (all-age)

#### Relate (the relationship people)

Help for Children & Young People – Family & Relationship Help | Relate

Contact us | Relate

**SupportLine** is particularly aimed at those who are isolated, at risk, vulnerable and victims of any form of abuse.

Helpline: 01708 765200 (hours vary so ring for details)

Admin: 01708 765222

Email: info@supportline.org.uk

### National Autistic Society. Manchester:

https://www.autism.org.uk/services/england/manchester.aspx email: supportercare@nas.org.uk.

tel.nr: 0808 800 4104. or: 0808 800 1050.

### **CABA Helping People with Autism:**

https://www.caba.org.uk/help-and-guides/information/support-people-autism email: enquiries@caba.org.uk

tel.nr: +44 (0) 1788 556 366

### UKAP The UK ADHD Partnership:

https://www.ukadhd.com/what-is-ukap.htm

email: addup@addup.co.uk

#### MADDchester:

http://www.maddchester.com/

email: contact@maddchester.com

### STOP IT NOW; Helping Prevent Child Sexual Abuse:

https://www.stopitnow.org.uk/

Tel.nr: 0808 1000 900

STOP IT NOW is a charity in the UK which offers information and support for individuals who may have experience of illegal online sexual behaviour involving children (e.g., any type of pornography) and who would like to receive support for how to change these behaviours. The charity also provides support for families and friends and of these individuals; additionally, it helps people cope with difficult emotions, and the professionals who work with these groups.

### Further information and contact details:

Should you require any further information please contact the primary researcher:

xxx (xxx@salford.edu.ac.uk)

Young People



### Questionnaire

### This is an anonymous questionnaire

Please do not write your name, or any identifying information in your responses.

Please ensure that you have read the *Participant Information Sheet* before completing this

questionnaire as it explains the purpose of this research.

## By completing and returning this questionnaire you indicate your consent to participate in this research.

This questionnaire contains questions about your romantic relationships, sexuality and sexual behaviours, *sexuality education*\* and sexual knowledge. For the purpose of this research, the researcher has adopted the terminology (autism spectrum disorders (ASD) and/or attention-deficit/hyperactivity disorder (ADHD)) from the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) (APA,2013) and will be using it to throughout the questionnaire.

Some questions may not apply to you, but in the interest of good research it is beneficial to ask these questions.

If you would like to receive a paper copy of the questionnaire, please send an email to:

xxx@edu.salford.ac.uk

\*"Comprehensive sexuality education covers the same topics as sex education but also includes issues such as relationships, attitudes towards sexuality, sexual roles, gender relations and the social pressures to be sexually active, and it provides information about sexual and reproductive health services." (Leung et al., 2019).

## This questionnaire must be completed by individuals aged 18 years and over only.

1. Your age (in years and months, e.g., 18 years and 3 months):

2. Your gender:	
Male	
Female	
Other:	
3. Your ethnicity:	
White	

- English / Welsh / Scottish / Northern Irish / British
- Irish
- Gypsy or Irish Traveller
- Any other White background

Mixed / Multiple ethnic groups

- White and Black Caribbean
- White and Black African
- White and Asian
- Any other Mixed / Multiple ethnic background

Asian / Asian British

- Indian
- Pakistani
- Bangladeshi
- Chinese
- Any other Asian background

Black / African / Caribbean / Black British

- African
- Caribbean
- Any other Black / African / Caribbean background

Other ethnic group

- Arab
- Any other ethnic group

#### 4. Have you been diagnosed with any of the following condition? (tick one or more)

Autism Spectrum Disorder (this may include, Asperger's Disorder, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder Not Otherwise Specified) (ASD)

Attention-Deficit/Hyperactivity Disorder (ADHD)

ASD co-occurring with ADHD

No, I am a neurotypical (TD) young person (I do not have any neurodevelopmental condition)

### 5. If you were diagnosed with (a) neurodevelopmental condition(s); How old were you when you were first diagnosed with this condition/these conditions?

### 6. What is the highest level of education you have completed (e.g., Year 10, GCSEs)?

### 7. What type of school/college do you attend currently/ have you attended most recently?

Mainstream school/college

Mainstream school/college and, also, they have/had help from teaching support staff for students with neurodevelopmental conditions such as autism and attention-deficit/hyperactivity disorder

Special needs school/college (non-residential)

Special needs boarding school/college, residential special school/college

Other:

I'd prefer not to say

8. Have you ever been provided with any interventions or educational support sessions at your school/college or outside your school/college to enhance your social communication skills?

Yes

No

I don't know

I'd prefer not to say

### 9. Have you ever dated someone or been in a romantic relationship?

Yes, in the past

Yes, I am currently dating someone/ in a romantic relationship

No, I have not

I don't know

I'd prefer not to say

## **10.** Have you ever experienced any of the following romantic behaviours? (tick one response per category)

	Yes	No	l don't remembe r	l'd prefer not to say
Holding hands with someone?				

Hugging/cuddling with someone?		
Kissing someone on the lips?		
Touching/petting private parts of the body with someone?		
Having a sexual intercourse with someone?		

### **11.** Do you have any concerns about dating or becoming romantically involved with another person?

Yes

No

I don't know

I'd prefer not to say

## 12. Do you find it difficult to recognise whether another person is trying to show you that they like/are attracted to you or not?

Yes

No

I don't know

I'd prefer not to say

### 13. Do you have any concerns about exhibiting behaviours that may be considered inappropriate when trying to show another person that you like/are attracted to them?

Yes

No

I don't know

I'd prefer not to say

### 14. Have you got any concerns about how to recognise whether your dating or romantic relationship is healthy or not?

Yes

No

I don't know

I'd prefer not to say

15. Do you feel that you may be more vulnerable, than other people your age, to being abused by another person/your partner while dating/ in a romantic relationship?

Yes

No

I don't know

I'd prefer not to say

## 16. What barriers may be preventing you from getting involved in dating/a romantic relationship (if you are not dating and are not in a romantic relationship)?

Contact with others is too tiring for me

I haven't yet met the right person I would like to date/ be with

I worry I may not be able to fulfil another person's/my partner's expectations

I don't know where I could meet a potential dating candidate, or potential partner

I don't understand how dating, or a romantic relationship, works or how to behave during dating, or while in a romantic relationship

I don't like the physical contact which dating, or a romantic relationship may involve

I just don't feel the need to date, or be in a romantic relationship

None

Other (give examples)

I don't know

I'd prefer not to say

17. Have you ever experienced cyber-bullying when online dating?

Yes

No

I have not done online dating

I don't know

I'd prefer not to say

#### 18. Do/Did you have sexuality education at your school/college?

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Yes

No

I do not remember

I don't know

I'd prefer not to say

### 19. How often do/did sexuality education lessons take place at your school/college?

Once a month

Twice a month

Once a week

Twice a week

Other (give details)

I don't know

I'd prefer not to say

## 20. Do you have any concerns about learning about sexuality, dating and romantic relationships from the Internet?

Yes

No

I don't know

I'd prefer not to say

## 21. Have you been taught the following aspects of sexuality at your school/college? (tick one response per category)

	Yes	No	I'd prefer not
			to say
A. Using contraception (e.g.			
condoms, contraceptive pill, etc.)			
B. Having tests for sexually			
transmitted infections (STI's)			
C. Not making important decisions			
about sexual activities while affected			
by alcohol or drugs			
D. Hygiene (e.g., washing genitals)			

E. Menstruation (menstrual periods)		
F. Understanding healthy/unhealthy		
relationship		
G. Recognising abuse in a		
relationship		
H. How to deal with sexual abuse		
I. Reproduction (pregnancy)		
J. Consequences of getting pregnant		
K. Dealing with a romantic rejection		
L. Dating		
M. Marriage		
N. Having children		
O. Consequences of watching		
pornography		
P. Consequences of watching child		
pornography		

22. Would technology-based support (e.g., particular applications, devices, videos, etc.) be beneficial for you in terms of supporting your learning about sexuality, dating and romantic relationships in your school/college?

Yes

No

I don't know

I'd prefer not to say

If there is anything else you think might be relevant for the study and you would like to share with us, please leave it here.

Also, if there are any questions not asked in this questionnaire and you may deem important, please write them here.

If you have any worries or would like any help with any of the issues raised in this questionnaire then please get in touch with the researcher (contact details available in the participant information sheet) or talk to adult whom you can trust.

### THANK YOU VERY MUCH FOR TAKING TIME TO COMPELTE THIS QUESTIONNAIRE.

Leung, H., Shek, D. T., Leung, E., & Shek, E. Y. (2019). Development of contextually relevant sexuality education: lessons from a comprehensive review of adolescent sexuality education across cultures. *International journal of environmental research and public health*, *16*(4), 621.

\*American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Arlington, VA: American Psychiatric Association.



Exploring Sexuality Knowledge and Experience of Romantic Relationships in Adolescents and Young Adults with Autism Spectrum Disorder, Attention-Deficit/Hyperactivity Disorder, and Autism Spectrum Disorder co-occurring with Attention-Deficit/Hyperactivity Disorder. Perspectives from Caregivers, Educational Professionals and Adolescents and Young Adults

**Participant Debrief Sheet** 

Thank you for completing this questionnaire. We hope that you have found it interesting and have not been upset by any of the questions. However, if any part(s) of this questionnaire has made you feel upset or distressed in any way and you would wish to speak to someone about it, you may contact the independent <u>organisations listed below</u>:

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### Brook : YOUR FREE & CONFIDENTIAL SEXUAL HEALTH & WELLBEING EXPERTS

Brook – Healthy lives for young people

• Victim Support call 0800 123 6600 / online chat (all-age)

#### Relate (the relationship people)

Help for Children & Young People – Family & Relationship Help | Relate

Contact us | Relate

### **SupportLine** is particularly aimed at those who are isolated, at risk, vulnerable and victims of any form of abuse.

**Helpline:** 01708 765200 (hours vary so ring for details)

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Email: info@supportline.org.uk

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email: enquiries@caba.org.uk

tel.nr: +44 (0) 1788 556 366

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https://www.ukadhd.com/what-is-ukap.htm

email: addup@addup.co.uk

#### MADDchester:

http://www.maddchester.com/

email: contact@maddchester.com

### STOP IT NOW; Helping Prevent Child Sexual Abuse:

https://www.stopitnow.org.uk/

### Tel.nr: 0808 1000 900

STOP IT NOW is a charity in the UK which offers information and support for individuals who may have experience of illegal online sexual behaviour involving children (e.g., any type of pornography) and who would like to receive support for how to change these behaviours. The charity also provides support for families and friends and of these individuals; additionally, it helps people cope with difficult emotions, and the professionals who work with these groups.

### Further information and contact details:

Should you require any further information please contact the primary researcher:

xxx (xxx@edu.salford.ac.uk)

If you are interested in participating in semi-structured interviews as a follow-up, please leave your email address here. Thank you.

Caregivers



### Questionnaire

### This is an anonymous questionnaire

Please do not write your name or any identifying information in your responses.

Please ensure that you have read the Participant Information Sheet before completing this

questionnaire as it explains the purpose of this research.

### By completing and returning this questionnaire you indicate your consent to participate in this research.

This questionnaire contains questions about romantic relationships, sexuality, sexual behaviours and *sexuality education*\* and sexual knowledge of your child who may be neurotypical (TD) (have not got any neurodevelopmental conditions) or may have autism spectrum disorders (ASD) and/or attention-deficit/hyperactivity disorder (ADHD). For the purpose of this research, the researcher has adopted the terminology from the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) (APA,2013); and will be using it to throughout the questionnaire.

Some questions may not apply to you, but in the interest of good research it is beneficial to ask these questions.

If you would like to receive a paper copy of the questionnaire, please send an email to:

xxx@edu.salford.ac.uk

\*"Comprehensive sexuality education covers the same topics as sex education but also includes issues such as relationships, attitudes towards sexuality, sexual roles, gender relations and the social pressures to be sexually active, and it provides information about sexual and reproductive health services." (Leung et al., 2019).

If you have more than one child with autism spectrum disorders and/or attentiondeficit/hyperactivity disorder, please choose **ONLY** one of your children as your focus on this questionnaire. If you wish to, you can complete another questionnaire about your other child.

1. Your child's age (in years and months, e.g., 15 years and 3 months):

Male

<sup>2.</sup> Your child's gender:

Female

Other: \_\_\_\_\_

Prefer not to say

### 3. Your child's ethnicity:

White

- English / Welsh / Scottish / Northern Irish / British
- Irish
- Gypsy or Irish Traveller
- Any other White background

### Mixed / Multiple ethnic groups

- White and Black Caribbean
- White and Black African
- White and Asian
- Any other Mixed / Multiple ethnic background

### Asian / Asian British

- Indian
- Pakistani
- Bangladeshi
- Chinese
- Any other Asian background

Black / African / Caribbean / Black British

- African
- Caribbean
- Any other Black / African / Caribbean background

#### Other ethnic group

- Arab
- Any other ethnic group

# 4. Which of the following condition(s) has your child has been diagnosed with? (tick one or more)

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Autism Spectrum Disorder (this may include, Asperger's Disorder, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder Not Otherwise Specified) (ASD)

Attention-Deficit/Hyperactivity Disorder (ADHD)

ASD co-occurring with ADHD

My child is neurotypical (TD) (they have not been diagnosed with any neurodevelopmental condition)

5. If you have a child diagnosed with (a) neurodevelopmental condition(s); How old were they when first diagnosed with this condition/these conditions?

### 6. What is the highest education level your child has completed (e.g., year 10, GCSEs)?

I'd prefer not to say

7. What	type of school/college	e does your child at	ttend currently/ l	has your child at	ttended most
recently	?				

Mainstream school/college

Mainstream school/college and, also, they have/had help from teaching support staff for

students with neurodevelopmental conditions such as autism and attention-deficit/hyperactivity disorder

Special needs school/college (non-residential)

Special needs boarding school/college/residential special school/college

I'd prefer not to say

8. Has your child ever been provided with any additional interventions or educational support sessions within or outside their school/college to improve their social communication skills?

Yes

No

I don't know

I'd prefer not to say

### 9. Has your child ever dated someone or been in a romantic relationship?

Yes, in the past

Yes, they are currently dating someone/are currently in a romantic relationship

No, they have not

I don't know

I'd prefer not to say

### 10. Has your child ever talked to you about their dating or romantic relationship experiences?

Yes

No

I don't remember

I'd prefer not to say

# 11. Has your child ever talked to you about any challenges they have encountered while dating or being in a romantic relationship?

Yes

No

I don't remember

I'd prefer not to say

12. Do you have any concerns about your child dating or becoming romantically involved with another person in the future (if they are not dating or are not romantically involved with anyone yet)?

Yes

No

I don't know

I'd prefer not to say

13. Do you have any concerns about your child's ability to recognise that someone likes/is attracted to them or not?

Yes

No

I don't know

I'd prefer not to say

14. Do you have any concerns about your child's ability to recognise whether their dating or romantic relationship is healthy or not?

Yes

No

I don't know

I'd prefer not to say

15. Do you think that your child may be more vulnerable, than other people their age, to being abused by another person/their partner while dating/being in a romantic relationship?

Yes

No

I don't know

I'd prefer not to say

# 16. What barriers do you think may be preventing (or will prevent) your child from getting involved in dating or romantic relationships?

Contact with others may be too tiring for them

They haven't yet met the right person they would like to date/be with

They worry they may not be able to fulfil another person's/ their partner's expectations

They don't know where they could meet a potential dating candidate, or potential partner

They don't understand how dating, or a romantic relationship works, or how to behave during dating, or while in a romantic relationship

They don't like the physical contact which dating, or a romantic relationship may involve

They just don't feel the need to date, or be in a romantic relationship

None

Other (give examples)

I don't know

I'd prefer not to say

17. Does your child fear, or are they particularly anxious about dating, or romantic relationships?

Yes

No

I don't know

I'd prefer not to say

# 18. Do you have any concerns about your child showing behaviours that may be perceived as inappropriate when trying to show that they like/are attracted to another person?

Yes

No

I don't know

I'd prefer not to say

# 19. Do you think your child may be more vulnerable, than other people their age, to experiencing cyber-bullying when online dating?

Yes

No

I don't know

I'd prefer not to say

# 20. Do you think your child may be more vulnerable, than other people their age, to sexual grooming when online dating?

Yes

No

I don't know

I'd prefer not to say

### 21. Does/Did your child have sexuality education in their school/college?

Yes

No

I don't know

I'd prefer not to say

### 22. How often do/did sexuality education lessons take place at your child's school/college?

Once a month

Twice a month

Once a week

Twice a week

Other

I don't know

I'd prefer not to say

23. Do you think it would be beneficial if sexuality education were tailored specifically for autistic young people and/or young people with attention-deficit/hyperactivity disorder in schools/colleges?

Yes

No

I don't know

I'd prefer not to say

Not applicable

24. Does/did your child's school/college collaborate with you with regards to the sexuality education for your child?

Yes

No

I don't know

I'd prefer not to say

25. Do you think that schools/colleges should collaborate with parents with regards to sexuality education for their children?

Yes

No

I don't know

I'd prefer not to say

26. Do you have any concerns about your child learning about sexuality, dating and romantic relationships from the Internet?

Yes

No

I don't know

I'd prefer not to say

### 27. Has your child been taught the following aspects of sexuality at their school/college? (tick

### one response per category)

	Yes	No	l don't know	l'd prefer not to say
A. Using contraception (e.g., condoms, contraceptive pill, etc.)				
B. Having tests for sexually transmitted infections (STI's)				
C. Not making important decisions about sexual activities while affected by alcohol or drugs				
D. Hygiene (e.g., washing genitals)				
E. Menstruation (menstrual periods)				
F. Understanding healthy/unhealthy relationship				
G. Recognising abuse in a relationship				
H. How to deal with sexual abuse				
I. Reproduction (pregnancy)				
J. Consequences of getting				
pregnant				
K. Dealing with a romantic rejection				
L. Dating				
M. Marriage				
N. Having children				

O. Consequences of watching		
pornography		
P. Consequences of watching child		
pornography		

28. Would any type of technology-based support (e.g., particular applications, devices, videos, etc.) be beneficial for your child in terms of supporting their learning about sexuality, dating and romantic relationships?

Yes

No

I don't know

I'd prefer not to say

29. Have you ever received any support for how to speak more confidently and effectively to your child about sexuality, dating and romantic relationships?

Yes

No

I don't remember

I'd prefer not to say

30. How would you describe your relationship to the child?

Mother

Father

Other (please specify)

If there is anything else you think might be relevant for the study and you would like to share with us, please leave it here.

Also, if there are any questions not asked in this questionnaire and you may deem important, please write them here.

### THANK YOU VERY MUCH FOR TAKING TIME TO COMPELTE THIS QUESTIONNAIRE.

Leung, H., Shek, D. T., Leung, E., & Shek, E. Y. (2019). Development of contextually relevant sexuality education: lessons from a comprehensive review of adolescent sexuality education across cultures. *International journal of environmental research and public health*, *16*(4), 621.

\*American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. Arlington, VA: American Psychiatric Association.



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**Participant Debrief Sheet** 

Thank you for completing this questionnaire. We hope that you have found it interesting and have not been upset by any of the questions. However, if any part(s) of this questionnaire has made

you feel upset or distressed in any way and you would wish to speak to someone about it, you may contact the independent **organisations listed below:** 

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Call for free on 0808 802 5544 (9:30am - 4pm, Mon - Fri)

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Tel. Nr 0121 522 7007 (10am-4pm Mon-Fri (excluding bank holidays)

### Brook : YOUR FREE & CONFIDENTIAL SEXUAL HEALTH & WELLBEING EXPERTS

Brook – Healthy lives for young people

• Victim Support call 0800 123 6600 / online chat (all-age)

### Relate (the relationship people)

Help for Children & Young People – Family & Relationship Help | Relate

Contact us | Relate

## **SupportLine** is particularly aimed at those who are isolated, at risk, vulnerable and victims of any form of abuse.

Helpline: 01708 765200 (hours vary so ring for details)

Admin: 01708 765222

Email: info@supportline.org.uk

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### National Autistic Society. Manchester:

https://www.autism.org.uk/services/england/manchester.aspx

email: supportercare@nas.org.uk.

tel.nr: 0808 800 4104. or: 0808 800 1050.

### CABA Helping People with Autism:

https://www.caba.org.uk/help-and-guides/information/support-people-autism

email: enquiries@caba.org.uk

tel.nr: +44 (0) 1788 556 366

### UKAP The UK ADHD Partnership:

https://www.ukadhd.com/what-is-ukap.htm

email: addup@addup.co.uk

### MADDchester:

http://www.maddchester.com/

email: contact@maddchester.com

### STOP IT NOW; Helping Prevent Child Sexual Abuse:

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### Tel.nr: 0808 1000 900

STOP IT NOW is a charity in the UK which offers information and support for individuals who may have experience of illegal online sexual behaviour involving children (e.g., any type of pornography) and who would like to receive support for how to change these behaviours. The charity also provides support for families and friends and of these individuals; additionally, it helps people cope with difficult emotions, and the professionals who work with these groups.

#### Further information and contact details:

Should you require any further information please contact the primary researcher:

xxx (xxx@edu.salford.ac.uk)

If you are interested in participating in semi-structured interviews as a follow-up, please leave your email address here. Thank you

### Appendix 9: Semi-structured Interview Guides for Study 3: Interviews

#### **Educational Professionals**

The semi-structured interview:

In the beginning, there will be an introductory question (or a couple of questions depending on the circumstances) to help participants feel relaxed, for example, "Have you had a good weekend/day?", "How's been your day?" After introductions are made and introductory questions are discussed, the interviewer will

start moving on to the questions regarding the study...

- 1. Can you start by telling me about your involvement with delivering relationships and sex education in your school/college?
- 2. What relationships and sex topics do you teach your students?
  - a) Which of these topics do you think are most useful for
    - students with ASD
    - students with ADHD
    - students with ASD co-occurring with ADHD
    - neurotypical students

in terms of providing them with tools and information important for building and maintaining romantic relationships?

- b) What are the benefits of learning these specific topics for
  - students with ASD?

- students with ADHD?
- students with ASD co-occurring with ADHD?
- neurotypical students?
- 3. Can you think of any other topics not included in the curriculum in your school/college, which may be useful for
  - students with ASD?
  - students with ADHD?
  - students with ASD co-occurring with ADHD?
  - neurotypical students?
  - a) If so, what can you tell me about these topics?
  - b) What would be the benefits of learning these specific topics for
    - students with ASD?
    - students with ADHD?
    - students with ASD co-occurring with ADHD?
    - neurotypical students?
- 4. What can you tell me about the teaching methods you use (talking/discussions, use of technology, videos etc) to teach relationships and sex topics to
  - students with ASD?
  - students with ADHD?
  - students with ASD co-occurring with ADHD?
  - neurotypical students?
  - a) Which of these methods are most useful, in your opinion?
  - b) Can you tell me more about the application of these methods?
  - c) What are the benefits of utilising these specific methods in teaching
    - students with ASD?
    - students with ADHD?
    - students with ASD co-occurring with ADHD?
    - neurotypical students?
- 5. Can you think of any other teaching methods (e.g., technology-based, videos, apps) that you do not use in your school/college, but you think could be useful in teaching relationships and sex education to
  - students with ASD?
  - students with ADHD?
  - students with ASD co-occurring with ADHD?
  - neurotypical students?
  - a) If yes, what are these specific methods?
  - b) What would be the benefits of utilising them in teaching for
  - students with ASD?
  - students with ADHD?
  - students with ASD co-occurring with ADHD?
  - neurotypical students?
  - c) How they could be implemented in your school/college?

- 6. When you think of the current relationships and sex education in your school/college, what are the things about it that could be changed/improved (if any) to make it more appropriate for
  - students with ASD?
  - students with ADHD?
  - students with ASD co-occurring with ADHD?
  - neurotypical students?
  - a) How would you recommend changing/improving them?
  - b) What would be the benefits of these changes/improvements for
    - students with ASD?
    - students with ADHD?
    - students with ASD co-occurring with ADHD?
    - neurotypical students?
- Now, I would like to talk a little bit about the availability of additional support (e.g., GP/Medical professional [e.g., nurse], counsellor, psychologist) in your school/college...Would you say that your school/college provide
  - students with ASD
  - students with ADHD
  - students with ASD co-occurring with ADHD
  - neurotypical students

with additional support to help them increase their knowledge about relationships and sex?

- a) If yes, what type of support is provided?
- b) How does it work in practice (provision of sessions, topics covered etc)?
- c) What are the benefits of this additional support for
  - students with ASD?
  - students with ADHD?
  - students with ASD co-occurring with ADHD?
  - neurotypical students?
- d) If there is no support provided, can you think of any additional support that would be beneficial for
  - students with ASD?
  - students with ADHD?
  - students with ASD co-occurring with ADHD?
  - neurotypical students?
- e) What would that be?

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- f) What would be the benefits of it for
  - students with ASD?
  - students with ADHD?
  - students with ASD co-occurring with ADHD?
  - neurotypical students?
- 8. Now, let's talk a little about the availability of support for educators...can you tell me whether your school/college provide you with any support (psychologist, therapists etc, training) to help you feel fully equipped (if there is any need for it) to deliver most effective teaching about relationships and sex to
  - students with ASD?
  - students with ADHD?
  - students with ASD co-occurring with ADHD?
  - neurotypical students?
  - a) If yes, can you tell me more about this support?
  - b) What are the benefits of this support?
  - c) If there is nothing provided, what are your thoughts on receiving such support?
  - d) What types of support would be beneficial for you?
  - e) How this support could be implemented in your school/college?
- 9. This semi-structured interview aimed to understand your perspectives on your students' relationships and sex education...Is there anything else that you did not get to say on the topic and would like to tell me?

### Young People

In the beginning, there will be an introductory question (or a couple of questions depending

on the circumstances) to help participants feel relaxed, for example, "Have you had a good

weekend/day?", "What course have you been studying? Are you enjoying it?"

- After introductions are made and introductory questions are discussed, the interviewer will start moving on to the questions regarding the study...
- 1. I would like to start by learning a bit about your experiences with relationship and sex education...Do/Did you have a relationship and sex education in your school/college? (If you

did not have a relationship and sex education in your school/college, who/what places provide/provided you with relationship and sex education?)

- a) What aspects of this education are/were most useful for you?
- b) What are/were the benefits of it?
- c) Can you think of any aspects of this relationship and sex education that were less useful for you?
- d) Can you tell me more about it?
- e) How this could be improved?
- 2. How useful is/was the relationship and sex education you receive/received in terms of giving you the right tools and information for building and maintaining romantic relationships?
  - a) If useful; What are/were the benefits of it?
  - b) If not useful; Can you think of some aspects of these relationships and sex education which are/were less useful for you?
  - c) Can you tell me more about it?
  - d) What suggestions/recommendations can you give (e.g., providing technology-based sexuality education such as videos, applications etc., tailoring sex education) for making these specific aspects more useful?
- 3. Can you think of any other places/organisations/individuals (e.g., GP, therapist, mental health nurse, special centres) that would be useful in providing you with relationship and sex education?
  - a) What can you tell me about these places?
  - b) What would be the benefits for you of learning about relationship and sex from these specific places?
- 4. Now, I will ask you a few more personal questions, so please answer only if your feel comfortable talking about it...I would like to talk to you about your and your parents' (or people who look after you) communication on relationships and sex topics...What can you tell me about this communication?
  - a) What relationships and sex topics do you talk to your parents about?
  - b) What aspects of this communication are most useful for you?
  - c) What are the benefits of it?
  - d) What aspects of this communication are less useful for you?
  - e) Can you tell me more about it?
- 5. Now, I would like to talk a little about your romantic relationships and dating experiences...when you think back, what can you say about these experiences?
  - a) Were you satisfied in your romantic relationships?
  - b) What was good about them?
  - c) If you were not satisfied, how this could be helped?

- 6. Can you think of any challenges you have encountered with building and maintaining your romantic relationships?
  - a) What can you tell me about these challenges?
  - b) How they could be helped?
- 7. Can you think of any specific support that might be beneficial for you to help you manage such challenges?
  - a) What support that could be (GP, therapist, school-based, etc)?
  - b) What would be the benefits of this support for you?
- 8. This semi-structured interview aimed to learn your perspectives on relationships and sex education and experiences of your romantic relationships and dating...Is there anything else that you did not get to say on the topic and would like to tell me?

### Caregivers

In the beginning, there will be an introductory question (or a couple of questions depending on the circumstances) to help participants feel relaxed, for example, "Have you had a good weekend/day?", "Tell me a little bit about your interest in coming to this semi-structured interview?"

After introductions are made and introductory questions are discussed, the interviewer will start moving on to the questions regarding the study...

- 1. I would like to start by learning a little bit about your child's relationships and sex education...How important is it for you that your child receives relationships and sex education?
  - a) If it is important, what are the benefits of it?
  - b) If it is not important, can you tell me your thoughts on it?
- 2. Where does/did your child receive their relationships and sex education?
  - a) What relationships and sex topics do/did they learn about?
  - b) Which of these topics are/were the most beneficial for your child?
  - c) What are/were the benefits of it?
- 3. Can you think of any other topics your child does/did not learn, but you think could be beneficial for your child?
  - a) What are these specific topics?
  - b) What would be the benefits for your child to learn these specific topics?
- 4. How useful is/was the relationships and sex education that your child receives/received in terms of enhancing their knowledge and understanding of building and maintaining romantic relationships?
  - a) What are/were the benefits of it?

- b) If it is/was not very useful, could you think of any ways of making it more useful for your child?
- c) What would be the benefits of providing these changes?
- 5. Now, can you think of any other places/organisations/individuals (e.g., GP/Medical professional [e.g., nurse], counsellor, psychologist) which, in your opinion, would be useful in providing relationships and sex education to your child?
  - a) What places/organisations/individuals it could be?
  - b) What would be the benefits of it for your child?
- 6. Now, I will ask you a few more personal questions, so please answer only if you feel comfortable talking about it.... what can you tell me about your communication with your child on relationships and sex topics?
  - a) What topics related to relationships and sex do you discuss with your child?
  - b) How easy is it for you to talk to your child about relationships and sex?
  - c) If it is not easy, how this could be helped (e.g., the support provided by GP, psychologist, counsellor, therapist, child's school/college etc)?
  - d) What would be the benefits of this support for you?
- 7. Now, I would like to ask you about your child's romantic relationships' experiences...what can you tell me about them?
  - a) Can you think of any positive experiences of your child's romantic relationships?
  - b) Can you tell me more about them?
  - c) If they were not positive, how this could be helped?
  - d) Can you think of any support that, in your opinion, would be beneficial for your child to help them improve their romantic relationships' experiences?

8. Would you like to receive any support to feel better equipped at discussion sex related topics with your child?

8. This semi-structured interview aimed to understand your perspectives on your child's sexuality knowledge and their romantic relationships and dating...Is there anything else that you did not get to say on the topic and would like to tell me?

### Appendix 10: Missing Responses in The Surveys in The Pilot Study, and Full Analysis of

#### The Pilot Study

**Table 18**. Missing responses to sub-questions in the surveys for young people (Total number ofparticipants 18).

Question	Number of missing responses
8a	17
8b	16

8b (other)	18	
8c	16	
8d	18	
8e	7	
8f	12	
11 (other)	17	
12a	18	
14a	18	
15a	18	
18	9	
21a	18	
21b	6	
21c	16	
21e	17	
23 (other)	16	
24a	18	
26	16	
27a	18	
27b	16	
28a	18	
28b	18	

**Table 19**. Missing responses to sub-questions in the surveys for educational professionals (Totalnumber of participants 11).

Question	Number of missing responses for NT students	Number of missing responses for autistic students	Number of missing responses for students with ADHD	Number of missing responses for students with ASD co- occurring with ADHD
6a	N/A	11	11	11
6b	N/A	11	11	11
6c	N/A	11	11	11
6d	N/A	11	11	11
8a	10	9	9	9
9a	10	8	9	9
11a	10	10	10	10
12a	9	10	9	9
14a	10	9	8	9
15a	10	10	9	10
16a	8	8	7	8
17a	8	9	8	9

18a	8	9	7	8
19a	10	8	9	9
23a	8	6	7	7
23b	8	6	7	7
26a	8	8	8	8
26b	5	5	5	5
28a	7	8	7	7
29a	9	8	8	8
31a	9	8	8	8
31c	9	7	7	7
31d	10	9	9	9

**Table 20**. Missing responses to sub-questions in the surveys for caregivers (Total number ofparticipants 11).

Question	Number of missing responses
8a	8
8b	5
8c	9
8d	9
11a	11
12a	11
13a	11
14a	11
15a	10
17a	11
18a	10
19a	10
20a	11
21a	11
25a	10
25b	10
26a	9
27a	10
28a	9
29a	11
33a	11
33b	9
34a	11
35a	11
36a	11
36b	10
36c	11
36d	10

36e 38 (other) 11 9

Full Analysis of the Pilot Study:

#### **Pilot Study**

Pilot Study: A Questionnaire Approach to Exploring the Experience of Romantic Relationships and Sexuality Education in Neurodivergent and Neurotypical Adolescents and Young People; Perspectives from Educational Professionals, Caregivers, and Young People

I proposed the following eight research questions for this Pilot Study:

- What are the enablers and barriers to building and maintaining romantic relationships in autistic young people, young people with ADHD and ASD co-occurring with ADHD compared to their TD peers, from the perspectives of education professionals, caregivers and young people?
- 2. What are the perceptions of autistic young people, young people with ADHD and ASD cooccurring with ADHD about their current/past sexuality education when compared to their TD peers?
- 3. What changes/modifications (if any) would autistic young people, young people with ADHD and ASD co-occurring with ADHD suggest to the current sexuality education in order to make it more appropriate to their needs (if required), when compared to their TD peers?
- 4. What are educational professionals' perceptions about the sexuality education provided in their schools/colleges to young people (autistic, with ADHD, with ASD co-occurring with ADHD, TD)?

- 5. What changes/modifications (if any) would educational professionals suggest to the current sexuality education in order to make it more appropriate to the needs of neurodivergent young people (autistic, with ADHD, with ASD co-occurring with ADHD) (if required)?
- 6. What are caregivers' perceptions about the sexuality education provided to their children (autistic, with ADHD, with ASD co-occurring with ADHD, TD)?
- 7. What changes/modifications (if any) would caregivers suggest to the current sexuality education in order to make it more appropriate to the needs of their neurodivergent children (autistic, with ADHD, with ASD co-occurring with ADHD) (if required)?
- 8. What support (if any) would sexuality educators (teaching staff/caregivers) would like to receive to feel better equipped (if required) to provide the most appropriate sexuality education to their students/children?

#### Method

# Design

It was an exploratory, pilot study based on a questionnaire (which also included open-ended questions) approach to the topic.

# Participants

#### Educational professionals

Twelve educational professionals of students between 13-25 years old (36% of the participants worked with students between 13-18 years old and 64% with students between 18-25 years old) participated in the study, however, one survey was submitted without any answers and hence it was excluded from the analysis. Only 9.1% of the participants indicated working only with students with ASD, 36.4% indicated working with students with ASD, ADHD and ASD co-

occurring with ADHD, and 54.5% indicated working with all groups of students (ASD, ADHD, ASD co-occurring with ADHD and TD). 54.5% of the educators worked in a special needs school/college (non-residential), 18.2% worked in a mainstream school/college, 18.2% in special needs boarding school/college/residential special school/college and 9.1% in 'other'. All participants had different lengths of experiences of working with students, the shortest time was 6 months, the longest was 17 years. The total number of students with ASD and/or ADHD that educators taught across all year groups from September to September was a minimum of 5 to a maximum of 60 students.

Educational Professionals (n=11)				
Student's age	13-18 years old: 36%			
	18-25 years old: 64%			
School/college	Mainstream: 18.2%			
	Special needs (non-residential): 54.5%			
	Special needs boarding /residential: 18.2%			
	Other: 9.1%			
Type of students taught	ASD: 9.1%			
	ASD; ADHD; ASD with ADHD: 36.4%			
	ASD; ADHD; ASD with ADHD; TD: 54.5%			
Years of experience working with students	Range: .50-17.00 (M=8.13; SD=5.75)			
Number of students with ASD and/or ADHD taught	Range: 5.00-60.00 (M=14.27; SD=15.38)			
across all year groups from September to September				

Table 1. Sample characteristics for Educational Professionals.

# Caregivers

In total, 14 caregivers of adolescents and young adults between 14-25 years old (M=18.96; SD=4.30) participated in the study. One participant completed the survey including two of their children, two participants completed the surveys on children whose age did not meet the study's criteria and thus, these three surveys had to be excluded from the analysis. Mothers (45%), one father (9%) and one "other" (9%) (the rest [36%] did not indicate their relationship to their child) completed the survey on their children's (54.5% sons, 27.3% daughters and 18.2% other gender)

romantic relationships and sexuality education. The majority of the children (72.7%) were White, 63.6% had a diagnosis of ASD, 18.2 % had ADHD and 18.2% had ASD co-occurring with ADHD. The age of the child diagnosis differed across all participants' children with the youngest being 3 and the oldest 22 years 3 months old. The children had different levels of education with the lowest level Year 9 and highest MA degree. Many children (54.5%) attended a mainstream school/college, 27.3% went to a special needs school/college (non-residential), 9.1% attended a mainstream school/college and they also received support from teaching support staff, and 9.1% of caregivers preferred not to answer this question.

Caregivers (n=11) (	child's characteristics)
Ethnicity	White: 72.7%
	Mixed: 9.1%
	Asian: 9.1%
	Other: 9.1%
Gender	Male: 54.5%
	Female: 27.3%
	Other: 18.2%
Age (years and months) (M=18.96; SD=4.30)	Minimum:14.00
	Maximum: 25.00
Diagnosis	ASD: 63.6%
	ADHD: 18.2%
	ASD with ADHD: 18.2%
Age of diagnosis (years and months)	Range: 3.00-22.30 (M=11.15; SD=6.01)
Attended school/college	Mainstream: 54.5%
	Mainstream with support: 9.1%
	Special needs (non-residential): 27.3%
	Prefer not to say: 9.1%
Highest level of education	MA design: 7.1%
6	Undergraduate/Bachelors: 7.1%
	A level currently doing a degree: 7.1%
	NVQ1: 7.1%
	GCSE: 7.1%
	Year 13: 7.1%
	Y 11: 7.1%
	Y9: 7.1%

Table 2. Sample characteristics for Caregivers.

# Young People

Twenty young adults between 18.9-24.11 years old (M=21.58; SD=1.64) completed the survey. Two participants did not meet the age criteria and hence their responses were excluded from the analysis. The majority (83.3%) were White participants, 55.6% females, 22.2% males and 22.2% other gender. More than half of participants (55.6%) indicated having a diagnosis of ASD, 22.2% had ADHD, 16.7% had a dual diagnosis (ASD co-occurring with ADHD) and one (5.6%) was neurotypical. Participants indicated different ages of receiving their diagnosis, the younger was 3 years old, the older 22 years 3 months old. They all had different levels of education, the lowest was functioning skills, the highest was bachelor's degree. The majority of the participants (66.7%) attended a mainstream school/college, 16.7% attended a mainstream school/college (non-residential).

Young Pe	Young People (n=18)				
Ethnicity	White: 83.3%				
	Mixed: 5.6%				
	Other: 11.1%				
Gender	Male: 22.2%				
Gender	Female : 55.6%				
	Other: 22.2%				
	Oule1. 22.270				
Age (years and months) (M=21.58; SD=1.64)	Minimum: 18.90				
	Maximum: 24.11				
Diagnosis	ASD: 55.6%				
, and the second s	ADHD: 22.2%				
	ASD with ADHD: 16.7%				
	TD: 5.6%				
Age of diagnosis (years and months)	Range: 3-22 (M=17.9; SD=5.03)				
Attended school/college	Mainstream: 66.7%				
	Mainstream with support: 16.7%				
	Special needs (non-residential): 16.7%				

Table 3. Sample characteristics for Young People.

Highest level of education	Bachelors: 16.7%
	4th Year BA student: 5.6%
	Some university: 5.6%
	Associate degree: 5.6%
	License degree: 5.6%
	Year 16 Level 1: 5.6%
	Alevel:16.7%
	Year 14: A level equivalent: 5.6%
	Matriculation examination: 5.6%
	BTEC: 5.6%
	11th grade (U.S. School): 5.6%
	Functional Skills: 5.6%
	Specialist college entry: 5.6%

#### Results

#### Descriptive Analysis of the Surveys

Due to the low number of completed surveys, only descriptive statistics and frequencies were conducted for the surveys using SPSS software.

## Group 1. Educational Professionals

When educational professionals were asked if the school/college they work, provides students with support to improve their social communication skills, 54.5% (out of 100%) responded "yes" for each neurodivergent group (autistic, with ADHD, and with ASD co-occurring with ADHD) compared to 36.4% responded "yes" for TD group. 81.8% of the educational professionals reported that autistic students ever talked to them about their dating or romantic relationship experience compared to 36.4% of the educators reported this for the group with ADHD, 27.3% reported this for the group with ASD co-occurring with ADHD and 36.4% reported this for the TD group. 54.5% of the educational professionals reported that autistic students ever talked to them about their students ever talked to them about their dating or romantic relationship experience and the group with ASD co-occurring with ADHD and 36.4% reported this for the TD group. 54.5% of the educational professionals reported that autistic students ever talked to them about encountering any challenges while dating or being in a romantic relationship, compared to 27.3% reported this for

students with ADHD, 27.3% reported this for students with ASD co-occurring with ADHD and 45.5% reported this for TD students. 54.5% of the educational professionals reported having concerns about their autistic students' dating or becoming romantically involved with another person, compared to 45.5% reported this for students with ADHD, 54.5% reported this for students with ASD co-occurring with ADHD, and 27.3% reported this for TD students. 81.8% of the educators reported having concerns about their autistic students being able to recognise that their romantic relationship is unhealthy, compared to 54.5% reported this for the ADHD group, 63.6% reported this for the ASD co-occurring with ADHD and 54.5% reported this for the TD group. 27.3% of the educators believed that each neurodivergent group (autistic, with ADHD and with ASD co-occurring with ADHD) do not know how dating or a romantic relationship works, or how to behave during dating, or while in a romantic relationship, compared to 9.1% reported that about TD students.

In terms of sexuality education, 45.5% of the educators reported that hygiene was taught to each of the neurodivergent group (autistic, with ADHD, and with ASD co-occurring with ADHD), compared to 36.4% reported this for TD group. 36.4% of the educators reported that menstruation was taught to each of the young people's group (autistic, with ADHD, and with ASD co-occurring with ADHD, TD). 45.5% of the educators reported that understanding healthy/unhealthy relationships was taught to each of the neurodivergent group (autistic, with ADHD, and with ASD co-occurring with ADHD), compared to 36.4% reported this for TD group. 9.1% reported that marriage, having children, consequences of watching pornography and child pornography were taught to each of the neurodivergent group (autistic, with ADHD, and with ASD co-occurring with ADHD), compared to 36.4% reported these subjects being taught to TD group. 36.4% of the educators reported that providing technology-based support on sexuality education would be useful for autistic students, 27.3% reported this for students with ADHD, 36.4% reported this for students with ASD co-occurring with ADHD and 27.3% reported this for TD students. 63.6% of the educators reported that tailoring sexuality education for the needs of autistic students would be beneficial,

compared to 54.5% reported this for students with ADHD and 54.5% reported this for students with ASD co-occurring with ADHD, compared to 36.4% reported this for TD students. Only 27.3% of educators reported that their school collaborate with caregivers of each group of the students (autistic, with ADHD and ASD co-occurring with ADHD, TD). 72.7% of the educators felt that their school/college did not equip them with the necessary skills and materials to teach sexuality to each of the neurodivergent groups of students (autistic, with ADHD and ASD co-occurring with ADHD) and ASD co-occurring with ADHD and ASD co-occurring with ADHD)

## Group 2. Caregivers

When caregivers were asked if their children were provided with any additional interventions or educational support sessions within or outside their school/college to improve their social communication skills, 40.25% of caregivers of autistic children said yes, compared to 11.57% of caregivers of children with ADHD and ASD co-occurring with ADHD. In terms of children's romantic relationship experiences, 17.28% of caregivers of autistic children reported that their child is currently in a romantic relationship, compared to 4.96% reported this for their child with ADHD and ASD co-occurring with ADHD. 11.52% of caregivers of autistic children reported their child was in a relationship in the past, compared to 3.31% reported this for their child with ADHD and ASD co-occurring with ADHD. 28.80% of caregivers of autistic children reported that their child has ever spoken to them about dating and romantic relationship experiences compared to 8.28% caregivers of children with ADHD and ASD co-occurring with ADHD. Additionally, 46.01% of caregivers of autistic children said that their child spoke to them about encountering challenges within their romantic relationships compared to 13.23% of caregivers who said that about their child with ADHD and ASD co-occurring with ADHD. Additionally, 46.01% of caregivers of autistic children reported having concerns about their child being in a romantic relationship in future compared to 13.23% of caregivers of children with ADHD and ASD co-occurring with ADHD. 46.01% of caregivers of autistic children reported having concerns about their child's ability to

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recognise whether their dating or romantic relationship is healthy or not compared to 13.23% of caregivers of children with ADHD and ASD co-occurring with ADHD. 40.25% of caregivers of autistic children believed that their child may be more vulnerable, than other people their age, to being abused by another person/their partner while dating/being in a romantic relationship, compared to 11.57 % of caregivers of children with ADHD and ASD co-occurring with ADHD. 46.01% of caregivers of autistic children reported having concerns about their child exhibiting behaviours that may be perceived as inappropriate when trying to show that they like/are attracted to another person, compared to 13.23 % of caregivers of children with ADHD and ASD co-occurring with ADHD.

In terms of sexuality education, 40.25% of caregivers of autistic children reported that their child had sexuality education in their school/college, compared to 11.57% who reported this about their children with ADHD and ASD co-occurring with ADHD. 17.28% of caregivers of autistic children reported that sexuality education was appropriate for their child compared to 4.96% of caregivers reported this about their children with ADHD and ASD co-occurring with ADHD. Interestingly, 46.01% of caregivers of autistic children believed that it would be beneficial to tailor sexuality education for neurodivergent young people, compared to 13.23% caregivers of children with ADHD and ASD co-occurring with ADHD. Additionally, only 11.52% of caregivers of autistic children reported that their child's school/college collaborates with them with regards to their child's sexuality education, compared to 3.31% of caregivers of children with ADHD and ASD co-occurring with ADHD. 57.53% of caregivers regarding their children's sexuality education compared to 16.54% of caregivers of children with ADHD and ASD co-occurring with ADHD.

In terms of specific topics of sexuality education, the most frequently reported topics that caregivers said their children were taught in schools/colleges were contraception (as reported by 28.80% of caregivers of autistic children and 8.28% with ADHD and ASD co-occurring with ADHD), sexually transmitted infections (STI's) (as reported by 23.04% of caregivers of autistic

children and 6.28% with ADHD and ASD co-occurring with ADHD), menstruation (as reported by 23.04% of caregivers of autistic children and 6.28% with ADHD and ASD co-occurring with ADHD), reproduction (as reported by 34.49% of caregivers of autistic children and 9.19% with ADHD and ASD co-occurring with ADHD). Many of them, however, believed that their children should be taught subjects including hygiene (as reported by 51.77% of caregivers of autistic children and 14.88% with ADHD and ASD co-occurring with ADHD), understanding healthy/unhealthy relationships (as reported by 46.01% of caregivers of autistic children and 13.23% with ADHD and ASD co-occurring with ADHD), recognising abuse in a relationship (as reported by 46.01% of caregivers of autistic children and 13.23% with ADHD and ASD co-occurring with ADHD), how to deal with sexual abuse (as reported by 46.01% of caregivers of autistic children and 13.23% with ADHD and ASD co-occurring with ADHD) and having children (as reported by 46.01% of caregivers of autistic children and 13.23% with ADHD).

Some (5.75%) caregivers of autistic children reported receiving no support on how to speak most appropriately and effectively to their child about sexuality, dating and romantic relationships, compared to 1.65% of caregivers of children with ADHD and ASD co-occurring with ADHD. 46.01% of caregivers of autistic children reported having asked for such support compared to 13.23% of caregivers of children with ADHD and ASD co-occurring with ADHD. Some other responses provided by caregivers to the questions are available in Table 5.

#### Group 3. Young People

Only 9.45% of autistic young people, 3.77% with ADHD, 3.00% with ASD co-occurring with ADHD and 0.95% TD said they were provided with any interventions or educational support sessions at their school/college or outside their school/college to enhance their social communication skills, compared to 37.25% of autistic young people, 14.87% with ADHD,11.18% with ASD co-occurring with ADHD, and 3.75% TD who said no; and 8.89% of autistic young people, 3.55% with

ADHD, 2.67% with ASD cooccurring with ADHD and 0.89% TD, I don't know. In terms of romantic relationship experiences, 24.46% of autistic young people, 9.76% with ADHD, 7.34% with ASD co-occurring with ADHD and 2.46% TD said they were in a romantic relationship in the past, only 9.45% of autistic young people, 3.77% with ADHD, 3.00% with ASD co-occurring with ADHD and 0.95% TD were currently in a romantic relationship; 18.34% of autistic young people, 7.32% with ADHD, 5.52% with ASD co-occurring with ADHD and 1.84% TD have never been in a romantic relationship; and 3.33% of autistic young people, 1.33% with ADHD, 1.00% with ASD cooccurring with ADHD and 0.33% TD preferred not to say. The majority of autistic young people 46.14%, 18.42% with ADHD, 13.86% with ASD co-occurring with ADHD, 4.64% TD reported hugging/cuddling with someone (6.11% of autistic young people, 2.44% with ADHD, 1.83% with ASD co-occurring with ADHD, 0.61% TD said no; 3.33% of autistic young people, 1.33% with ADHD, 1.00% with ASD co-occurring with ADHD, and 0.33% TD left it blank); holding hands with someone was reported by 43.36% of autistic young people, 17.31% with ADHD, 13.02% with ASD co-occurring with ADHD, 4.36% TD (9.45% of autistic young people, 3.77% with ADHD, 3.00% with ASD co-occurring with ADHD, 0.95% TD said no; 2.78% of autistic young people, 1.11% with ADHD, 0.83% with ASD co-occurring with ADHD, 0.28% TD left blank); and kissing someone on the lips by 40.03% of autistic young people, 15.98% with ADHD, 12.02% with ASD co-occurring with ADHD, 4.03% TD (12.23% of autistic young people, 4.88% with ADHD, 3.67% with ASD cooccurring with ADHD, 1.23% TD said no; 3.33% of autistic young people, 1.33% with ADHD, 1.00% with ASD co-occurring with ADHD, and 0.33% TD left blank left it blank). Fewer people reported touching/petting private parts of the body with someone 27.8% of autistic young people, 11.1% with ADHD, 8.35% with ASD co-occurring with ADHD and 2.8% TD (24.46% of autistic young people, 9.76% with ADHD, 7.34% with ASD co-occurring with ADHD and 2.46% TD said no; 3.33% of autistic young people, 1.33% with ADHD, 1.00% with ASD co-occurring with ADHD, and 0.33% TD left blank left it blank); and having sexual intercourse with someone 21.68% of

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autistic young people, 6.65% with ADHD, 6.51% with ASD co-occurring with ADHD, 2.18% TD (31.13% of autistic young people, 12.43% with ADHD, 9.35% with ASD co-occurring with ADHD, 3.13% TD said no; 2.78% of autistic young people, 1.11% with ADHD, 0.83% with ASD cooccurring with ADHD, 0.28% TD left it blank). Many autistic young people 46.14%, 18.42% with ADHD, 13.86% with ASD co-occurring with ADHD, 4.64% TD (9.45% of autistic young people, 3.77% with ADHD, 3.00% with ASD co-occurring with ADHD, 0.95% TD said no) reported having concerns about their romantic relationships. Many of them 40.03% of autistic young people, 15.98% with ADHD, 12.02% with ASD co-occurring with ADHD, 4.03% TD also reported finding it difficult to recognise whether another person is trying to show them their attraction (3.33% of autistic young people, 1.33% with ADHD, 1.00% with ASD co-occurring with ADHD, and 0.33% TD said no; 12.23% of autistic young people 4.88% with ADHD, 3.67% with ASD co-occurring with ADHD, 1.23% TD did not know); and 37.25% of autistic young people, 14.87% with ADHD,11.18% with ASD co-occurring with ADHD, and 3.75% TD reported having any concerns about exhibiting behaviours that may be considered inappropriate when trying to show another person that they like/are attracted to them (9.45% of autistic young people, 3.77% with ADHD, 3.00% with ASD cooccurring with ADHD, 0.95% TD said no; 8.89% of autistic young people, 3.55% with ADHD, 2.67% with ASD cooccurring with ADHD and 0.89% TD did not know). 21.68% of autistic young people, 6.65% with ADHD, 6.51% with ASD co-occurring with ADHD, 2.18% TD said they have concerns about how to recognise whether their dating or romantic relationship is healthy or not (18.34% of autistic young people, 7.32% with ADHD, 5.52% with ASD co-occurring with ADHD and 1.84% TD said no; 12.23% of autistic young people, 4.88% with ADHD, 3.67% with ASD cooccurring with ADHD, 1.23% TD did not know). 33.91% of autistic young people, 13.54% with ADHD, 10.18% with ASD co-occurring with ADHD, 3.41% TD also reported that they feel they may be more vulnerable, than other people their age, to being abused by another person/their partner while dating/ in a romantic relationship (15.56% of autistic young people, 6.21% with ADHD, 4.67%

with ASD co-occurring with ADHD,1.56% TD said no; 6.11% of autistic young people, 2.44% with ADHD, 1.83% with ASD co-occurring with ADHD, 0.61% TD did not know).

In terms of sexuality education, the majority of autistic young people 46.14%, 18.42% with ADHD, 13.86% with ASD co-occurring with ADHD, 4.64% TD (9.45% of autistic young people, 3.77% with ADHD, 3.00% with ASD co-occurring with ADHD, 0.95% TD said no) reported having sexuality education in their school/college. The covered subjects were using contraception as reported by 43.36% of autistic young people, 17.31% with ADHD, 13.02% with ASD co-occurring with ADHD, 4.36% TD (12.23% of autistic young people, 4.88% with ADHD, 3.67% with ASD co-occurring with ADHD, 1.23% TD said no); menstruation as reported by 33.91% of autistic young people, 13.54% with ADHD, 10.18% with ASD co-occurring with ADHD, 3.41% TD (21.68% of autistic young people, 6.65% with ADHD, 6.51% with ASD co-occurring with ADHD, 2.18% TD said no); reproduction/pregnancy, as reported by 43.36% of autistic young people, 17.31% with ADHD, 13.02% with ASD co-occurring with ADHD, 1.23% TD said no); and consequences of getting pregnant 37.25% of autistic young people, 14.87% with ADHD, 11.18% with ASD co-occurring with ADHD, and 3.75% TD (18.34% of autistic young people, 7.32% with ADHD, 5.52% with ASD co-occurring with ADHD, 1.84% TD said no).

Table 4. Descriptive statistics for educational professionals; "yes" responses to some questions from the survey.

ASD (% out of	ADHD (% out of	ASD with ADHD	TD
100%)	100%)	(% out of 100%)	(% out of 100%)

Educational Professionals (n=11; 100%) responses provided for each group of young people.

school/college provides social communication skills interventions; answered	54.5%	54.5%	54.5%	36.4%
ever talked about dating or romantic experience	81.8%	36.4%	27.3%	36.4%
ever talked about encountering any challenges	54.5%	27.3%	27.3%	45.5%
concerns about dating/becoming romantically involved	54.5%	45.5%	54.5%	27.3%
being able to recognise unhealthy relationship	81.8%	54.5%	63.6%	54.5%
do not know how dating, or a romantic relationship works	27.3%	27.3%	27.3%	9.1%
subject taught hygiene	45.5%	45.5%	45.5%	36.4%
subject taught menstruation	36.4%	36.4%	36.4%	36.4%
subject taught understanding healthy/unhealthy relationship	45.5%	45.5%	45.5%	36.4%
subject taught marriage	9.1%	9.1%	9.1%	36.4%
subject taught having children	9.1%	9.1%	9.1%	36.4%
subject taught consequences of watching pornography	9.1%	9.1%	9.1%	36.4%
subject taught consequences of watching child pornography	9.1%	9.1%	9.1%	36.4%

technology-based support would be useful	36.4%	27.3%	36.4%	27.3%
tailored sex education would be useful	63.6%	54.5%	54.5%	36.4%
school/college collaborates with parents about children's sex education	27.3%	27.3%	27.3%	27.3%
school/college did not equip educators	72.7%	72.7%	72.7%	45.5%

Table 5. Descriptive statistics for caregivers; responses to some questions from the survey.

# Caregivers (n=11; 100%)

% total (% for each group: ASD; ADHD; ASD\_ADHD; there were no caregivers of TD)

	Yes	No	I don't know/I don't remember	I'd prefer not to say	Left blank/ N/A
school/college provides social communicatio n skills interventions being in a romantic relationship	63.6% (ASD=40.25 %; ADHD=11.57 %; ASD_ADHD = 11.57%) 27.3% now (ASD=17.28 %; ADHD=4.96 %; ASD_ADHD = 4.96%) 18.2% in the past (ASD=11.52 %; ADHD=3.31 %; ASD_ADHD = 3.31%)	18.2% (ASD=11.52 %; ADHD=3.31 %; ASD_ADHD =3.31%) 45.5% (ASD=28.80 %; ADHD=8.28 %; ASD_ADHD = 8.28%)	9.1% (ASD=5.76%; ADHD=1.65 %; ASD_ADHD =1.65%) 0%	0% 9.1% (ASD=5.76%; ADHD=1.65 %; ASD_ADHD =1.65%)	9.1% (ASD=5.76%; ADHD=1.65 %; ASD_ADHD =1.65%) 0%

ever talked	45.5%	27.3%	0%	18.2%	9.1%
about dating	(ASD=28.80	(ASD=17.28		(ASD=11.52	(ASD=5.76%;
or romantic	%;	%;		%;	ADHD=1.65
experience	ADHD=8.28	ADHD=4.96		ADHD=3.31	%;
1	%;	%;		%;	ASD_ADHD
	ASD_ADHD	ASD_ADHD		ASD_ADHD	=1.65%)
	= 8.28%)	= 4.96%)		=3.31%)	1.00 /0)
ever talked	72.7%	18.2%	0%	0%	9.1%
about	(ASD=46.01	(ASD=11.52	070	070	(ASD=5.76%;
encountering	%;	%;			ADHD=1.65
any	ADHD=13.23	ADHD=3.31			%;
challenges	%;	%;			ASD_ADHD
chanenges	ASD_ADHD	ASD_ADHD			=1.65%)
	= 13.23%)	=3.31%)			-1.03%)
	,	,	0%	0.10/	0%
concerns	72.7%	18.2%	0%	9.1%	0%
about	(ASD=46.01	(ASD=11.52		(ASD=5.76%;	
dating/becomi	%;	%;		ADHD=1.65	
ng	ADHD=13.23	ADHD=3.31		%;	
romantically	%;	%;		ASD_ADHD	
involved	ASD_ADHD	ASD_ADHD		=1.65%)	
	= 13.23%)	=3.31%)			
being able to	72.7%	18.2%	0%	9.1%	0%
recognise	(ASD=46.01	(ASD=11.52		(ASD=5.76%;	
unhealthy	%;	%;		ADHD=1.65	
relationship	ADHD=13.23	ADHD=3.31		%;	
	%;	%;		ASD_ADHD	
	ASD_ADHD	ASD_ADHD		=1.65%)	
	= 13.23%)	=3.31%)			
more	63.6%	18.2%	0%	18.2%	0%
vulnerable,	(ASD=40.25	(ASD=11.52		(ASD=11.52	
than other	%;	%;		%;	
people their	ADHD=11.57	ADHD=3.31		ADHD=3.31	
age, to being	%;	%;		%;	
abused in a	ASD ADHD	ASD_ADHD		ASD_ADHD	
relationship	=11.57%)	=3.31%)		=3.31%)	
concerns	72.7%	18.2%	0%	9.1%	0%
about their	(ASD=46.01	(ASD=11.52		(ASD=5.76%;	570
child	(ASD=40.01 %;	(ASD=11.52 %;		ADHD=1.65	
exhibiting	ADHD=13.23	ADHD=3.31		%;	
behaviours	%;	%;		ASD_ADHD	
that may be	ASD_ADHD	ASD ADHD		=1.65%)	
perceived as	= 13.23%)	=3.31%)		-1.05/0)	
inappropriate	- 15.2570)	-5.5170)			
child had	63.6%	00/	27.3%	9.1%	0%
		0%			0%
sexuality	(ASD=40.25		(ASD=17.28	(ASD=5.76%;	
education in	%;		%;	ADHD=1.65	
their	ADHD=11.57		ADHD=4.96	%;	
school/college	%;		%;	ASD_ADHD	
	ASD_ADHD		ASD_ADHD	=1.65%)	
	= 11.57%)		= 4.96%)		

			1		
sexuality	27.3%	27.3%	36.4%	9.1%	0%
education was	(ASD=17.28	(ASD=17.28	(ASD=23.04	(ASD=5.76%;	
appropriate	%;	%;	%;	ADHD=1.65	
for the child	ADHD=4.96	ADHD=4.96	ADHD=6.62	%;	
	%;	%;	%;	ASD_ADHD	
	ASD_ADHD	ASD_ADHD	ASD_ADHD	=1.65%)	
	=4.96%)	=4.96%)	=6.62%)	,	
taught subject:	45.5%	9.1%	36.4%	9.1%	0%
contraception	(ASD=28.80	(ASD=5.76%;	(ASD=23.04	(ASD=5.76%;	
contraception	%;	ADHD=1.65	%;	ADHD=1.65	
	ADHD=8.28	%;	ADHD=6.62	%;	
	%;	ASD_ADHD	%;	ASD_ADHD	
	ASD_ADHD	=1.65%)	ASD_ADHD	=1.65%)	
	_	-1.03%)		-1.03%)	
	= 8.28%)	0.10/	=6.62%)	0.10/	
taught subject:	36.4%	9.1%	45.5%	9.1%	0%
STI's	(ASD=23.04	(ASD=5.76%;	(ASD=28.80	(ASD=5.76%;	
	%;	ADHD=1.65	%;	ADHD=1.65	
	ADHD=6.62	%;	ADHD=8.28	%;	
	%;	ASD_ADHD	%;	ASD_ADHD	
	ASD_ADHD	=1.65%)	ASD_ADHD	=1.65%)	
	=6.62%)		= 8.28%)		
taught subject:	36.4%	9.1%	27.3%	9.1%	18.2%
menstruation	(ASD=23.04	(ASD=5.76%;	(ASD=17.28	(ASD=5.76%;	(ASD=11.52
	%;	ADHD=1.65	%;	ADHD=1.65	%;
	ADHD=6.62	%;	ADHD=4.96	%;	ADHD=3.31
	%;	ASD_ADHD	%;	ASD_ADHD	%;
	ASD_ADHD	=1.65%)	ASD_ADHD	=1.65%)	ASD_ADHD
	=6.62%)	1.00/0)	= 4.96%)	1.00/0)	=3.31%)
taught subject:	54.5%	9.1%	18.2%	9.1%	9.1%
reproduction	(ASD=34.49	(ASD=5.76%;	(ASD=11.52	(ASD=5.76%;	(ASD=5.76%;
reproduction	(ASD=34.49 %;	(ASD=5.70%), ADHD=1.65	(ASD=11.52 %;	(ASD=3.70%), ADHD=1.65	ADHD=1.65
	ADHD=9.19	%;	ADHD=3.31	%;	%;
	%;	ASD_ADHD	%;	ASD_ADHD	ASD_ADHD
	ASD_ADHD	=1.65%)	ASD_ADHD	=1.65%)	=1.65%)
	=9.19%)		=3.31%)		
should be	81.8%	9.1%	0%	9.1%	0%
taught:	(ASD=51.77	(ASD=5.76%;		(ASD=5.76%;	
hygiene	%;	ADHD=1.65		ADHD=1.65	
	ADHD=14.88	%;		%;	
	%;	ASD_ADHD		ASD_ADHD	
	ASD_ADHD	=1.65%)		=1.65%)	
	=14.88%)				
should be	72.7 %	9.1%	9.1%	9.1%	0%
taught:	(ASD=46.01	(ASD=5.76%;	(ASD=5.76%;	(ASD=5.76%;	
understanding	%;	ADHD=1.65	ADHD=1.65	ADHD=1.65	
healthy/unhea	ADHD=13.23	%;	%;	%;	
lthy	%;	ASD_ADHD	ASD_ADHD	ASD_ADHD	
relationship	ASD_ADHD	=1.65%)	=1.65%)	=1.65%)	
relationship	= 13.23%)	-1.05/0)	-1.05/0)	-1.05/0)	
	- 13.2370)				<u>                                     </u>

	1	1	1	1	
should be	72.7%	18.2%	0%	9.1%	0%
taught:	(ASD=46.01	(ASD=11.52		(ASD=5.76%;	
recognising	%;	%;		ADHD=1.65	
abuse in a	ADHD=13.23	ADHD=3.31		%;	
relationship	%;	%;		ASD_ADHD	
	ASD_ADHD	ASD_ADHD		=1.65%)	
	= 13.23%)	=3.31%)			
should be	72.7%	9.1%	9.1%	9.1%	0%
taught: how to	(ASD=46.01	(ASD=5.76%;	(ASD=5.76%;	(ASD=5.76%;	
deal with	%;	ADHD=1.65	ADHD=1.65	ADHD=1.65	
sexual abuse	ADHD=13.23	%;	%;	%;	
	%;	ASD_ADHD	ASD_ADHD	ASD_ADHD	
	ASD_ADHD	=1.65%)	=1.65%)	=1.65%)	
	= 13.23%)	1100 (0)	1100 /0)	1100 (0)	
should be	72.7%	18.2%	0%	9.1%	0%
taught: having	(ASD=46.01	(ASD=11.52		(ASD=5.76%;	
children	%;	%;		ADHD=1.65	
ennaren	ADHD=13.23	ADHD=3.31		%;	
	%;	%;		ASD_ADHD	
	ASD_ADHD	ASD_ADHD		=1.65%)	
	= 13.23%)	=3.31%)		-1.05707	
caregivers	9.1%	45.5%	0%	0%	45.5%
received	(ASD=5.76%;	(ASD=28.80	070	0 /0	(ASD=28.80
	ADHD=1.65	(ASD=20.00 %;			(ASD=28.80 %;
support	%;	ADHD=8.28			<sup>70</sup> , ADHD=8.28
					ADHD=8.28 %;
	ASD_ADHD				<i>,</i>
	=1.65%)	ASD_ADHD			ASD_ADHD
· · ·	27.20/	= 8.28%)	0.10/	0.10/	= 8.28%)
caregivers	27.3%	54.5%	9.1%	9.1%	0%
asked for	(ASD=17.28	(ASD=34.49	(ASD=5.76%;	(ASD=5.76%;	
support	%;	%;	ADHD=1.65	ADHD=1.65	
	ADHD=4.96	ADHD=9.19	%;	%;	
	%;	%;	ASD_ADHD	ASD_ADHD	
	ASD_ADHD	ASD_ADHD	=1.65%)	=1.65%)	
	= 4.96%)	=9.19%)			
tailor	72.7%	9.1%	9.1%	0%	9.1%
sexuality	(ASD=46.01	(ASD=5.76%;	(ASD=5.76%;		(ASD=5.76%;
education for	%;	ADHD=1.65	ADHD=1.65		ADHD=1.65
neurodivergen	ADHD=13.23	%;	%;		%;
t young	%;	ASD_ADHD	ASD_ADHD		ASD_ADHD
people	ASD_ADHD	=1.65%)	=1.65%)		=1.65%)
	= 13.23%)				
school/college	18.2%	72.7%	0%	9.1%	0%
collaborate	(ASD=11.52	(ASD=46.01		(ASD=5.76%;	
with	%;	%;		ADHD=1.65	
caregivers	ADHD=3.31	ADHD=13.23		%;	
č	%;	%;		ASD_ADHD	
	ASD_ADHD	ASD_ADHD		=1.65%)	
	=3.31%)	= 13.23%)			
			I	I	l

school/college	90.9%	0%	0%	9.1%	0%
s should	(ASD=57.53			(ASD=5.76%;	
collaborate	%;			ADHD=1.65	
with	ADHD=16.54			%;	
caregivers	%;			ASD_ADHD	
	ASD_ADHD			=1.65%)	
	=16.54%)				

Table 6. Descriptive statistics for young people; responses to some questions from the survey.

# Young People (n=18)

	Yes	No	l don't know	I'd prefer not to say	Left blank/ N/A
school/college provides social communicatio n skills interventions	17% (ASD=9.45%, ADHD=3.77%, ASD_ADHD=3. 00%, TD=0.95%)	67% (ASD=37.25%, ADHD=14.87 %, ASD_ADHD=1 1.18%, TD=3.75%)	16% (ASD=8.89%, ADHD=3.55%, ASD_ADHD=2. 67%, TD=0.89%)	0%	0%
being in a romantic relationship	44% (in the past) (ASD=24.46%, ADHD=9.76%, ASD_ADHD=7. 34%, TD=2.46%) 17% (currently) (ASD=9.45%, ADHD=3.77%, ASD_ADHD=3. 00%, TD=0.95%)	33% (ASD=18.34%, ADHD=7.32%, ASD_ADHD=5. 52%, TD=1.84%)	0%	6% (ASD=3.33%, ADHD=1.33%, ASD_ADHD=1. 00%, TD=0.33%)	0%
holding hands with someone	78% (ASD=43.36%, ADHD=17.31 %,	17% (ASD=9.45%, ADHD=3.77%, ASD_ADHD=3.	0%	0%	5% (ASD=2.78%, ADHD=1.11%, ASD_ADHD=0.

	ASD_ADHD=1 3.02%, TD=4.36%)	00%, TD=0.95%)			83%, TD=0.28%)
hugging/cuddl ing with someone	83% (ASD= 46.14%, ADHD=18.42 %, ASD_ADHD=1 3.86%, TD=4.64%)	11% (ASD=6.11%, ADHD=2.44%, ASD_ADHD=1. 83%, TD=0.61%)	0%	0%	6% (ASD=3.33%, ADHD=1.33%, ASD_ADHD=1. 00%, TD=0.33%)
kissing someone on the lips	72% (ASD=40.03%, ADHD=15.98 %, ASD_ADHD=1 2.02%, TD=4.03%)	22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3. 67%, TD=1.23%)	0%	0%	6% (ASD=3.33%, ADHD=1.33%, ASD_ADHD=1. 00%, TD=0.33%)
touching/petti ng private parts of the body with someone	50% (ASD=27.8%, ADHD=11.1%, ASD_ADHD=8. 35%, TD=2.8%)	44% (ASD=24.46%, ADHD=9.76%, ASD_ADHD=7. 34%, TD=2.46%)	0%	0%	6% (ASD=3.33%, ADHD=1.33%, ASD_ADHD=1. 00%, TD=0.33%)
having sexual intercourse with someone	39% (ASD=21.68%, ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%)	56% (ASD=31.13%, ADHD=12.43 %, ASD_ADHD=9. 35%, TD=3.13%)	0%	0%	5% (ASD=2.78%, ADHD=1.11%, ASD_ADHD=0. 83%, TD=0.28%)
concerns about romantic relationships	83% (ASD=46.14 %, ADHD=18.42 %, ASD_ADHD=1 3.86%, TD=4.64%)	17% (ASD=9.45%, ADHD=3.77%, ASD_ADHD=3. 00%, TD=0.95%)	0%	0%	0%
recognise attraction from another person	72% (ASD=40.03%, ADHD=15.98 %, ASD_ADHD=1 2.02%, TD=4.03%)	6% (ASD=3.33%, ADHD=1.33%, ASD_ADHD=1. 00%, TD=0.33%)	22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3. 67%, TD=1.23%)	0%	0%
being able to recognise unhealthy relationship	39% (ASD=21.68%, ADHD=6.65%, ASD_ADHD=6.	33% (ASD=18.34%, ADHD=7.32%, ASD_ADHD=5.	22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3.	0%	6% (ASD=3.33%, ADHD=1.33%, ASD_ADHD=1.

	51%,	52%,	67%,		00%,
	TD=2.18%)	TD=1.84%)	TD=1.23%) 11%	<b>.</b>	TD=0.33%)
more	61%			0%	0%
vulnerable,	(ASD=33.91%,	(ASD=15.56%,	(ASD=6.11%,		
than other	ADHD=13.54	ADHD=6.21%,	ADHD=2.44%,		
people their	%,	ASD_ADHD=4.	ASD_ADHD=1.		
age, to being	ASD_ADHD=1	67%,	83%,		
abused in a	0.18%,	TD=1.56%)	TD=0.61%)		
relationship	TD=3.41%)				
concerns	67%	17%	16%	0%	0%
about	(ASD=37.25%,	(ASD=9.45%,	(ASD=8.89%,		
exhibiting	ADHD=14.87	ADHD=3.77%,	ADHD=3.55%,		
behaviours	%,	ASD_ADHD=3.	ASD_ADHD=2.		
that may be	ASD_ADHD=1	00%,	67%,		
perceived as	1.18%,	TD=0.95%)	TD=0.89%)		
inappropriate	TD=3.75%)				
had sexuality	83%	17%	0%	0%	0%
education in	(ASD=46.14%,	(ASD=9.45%,			
their	ADHD=18.42	ADHD=3.77%,			
school/college	%,	ASD_ADHD=3.			
	ASD_ADHD=1	00%,			
	3.86%,	TD=0.95%)			
	TD=4.64%)				
taught	78%	22%	0%	0%	0%
subject:	(ASD=43.36%,	(ASD=12.23%,			
contraception	ADHD=17.31	ADHD=4.88%,			
-	%,	ASD_ADHD=3.			
	ASD_ADHD=1	67%,			
	3.02%,	TD=1.23%)			
	TD=4.36%)				
taught	61%	39%	0%	0%	0%
-					
subject:	(ASD=33.91%,	(ASD=21.68%,			
-	(ASD=33.91%, ADHD=13.54	-			
•	-	ADHD=6.65%,			
subject: menstruation	ADHD=13.54	ADHD=6.65%, ASD_ADHD=6.			
•	ADHD=13.54 %,	ADHD=6.65%, ASD_ADHD=6. 51%,			
-	ADHD=13.54 %, ASD_ADHD=1 0.18%,	ADHD=6.65%, ASD_ADHD=6.			
menstruation	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%)	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%)	0%	0%	0%
menstruation	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78%	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22%	0%	0%	0%
taught subject:	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%)	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%,	0%	0%	0%
•	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78% (ASD=43.36%, ADHD=17.31	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%, ADHD=4.88%,	0%	0%	0%
taught subject:	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78% (ASD=43.36%, ADHD=17.31 %,	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3.	0%	0%	0%
taught subject:	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78% (ASD=43.36%, ADHD=17.31 %, ASD_ADHD=1	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3. 67%,	0%	0%	0%
menstruation caught subject:	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78% (ASD=43.36%, ADHD=17.31 %, ASD_ADHD=1 3.02%,	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3.	0%	0%	0%
menstruation taught subject: reproduction	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78% (ASD=43.36%, ADHD=17.31 %, ASD_ADHD=1 3.02%, TD=4.36%)	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3. 67%, TD=1.23%)			
taught subject: reproduction	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78% (ASD=43.36%, ADHD=17.31 %, ASD_ADHD=1 3.02%, TD=4.36%) 67%	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3. 67%, TD=1.23%) 33%	0%	0%	0%
menstruation taught subject: reproduction	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78% (ASD=43.36%, ADHD=17.31 %, ASD_ADHD=1 3.02%, TD=4.36%) 67% (ASD=37.25%,	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3. 67%, TD=1.23%) 33% (ASD=18.34%,			
consequences	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78% (ASD=43.36%, ADHD=17.31 %, ASD_ADHD=1 3.02%, TD=4.36%) 67% (ASD=37.25%, ADHD=14.87	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3. 67%, TD=1.23%) 33% (ASD=18.34%, ADHD=7.32%,			
consequences	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78% (ASD=43.36%, ADHD=17.31 %, ASD_ADHD=1 3.02%, TD=4.36%) 67% (ASD=37.25%, ADHD=14.87 %,	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3. 67%, TD=1.23%) 33% (ASD=18.34%, ADHD=7.32%, ASD_ADHD=5.			
menstruation taught subject: reproduction	ADHD=13.54 %, ASD_ADHD=1 0.18%, TD=3.41%) 78% (ASD=43.36%, ADHD=17.31 %, ASD_ADHD=1 3.02%, TD=4.36%) 67% (ASD=37.25%, ADHD=14.87	ADHD=6.65%, ASD_ADHD=6. 51%, TD=2.18%) 22% (ASD=12.23%, ADHD=4.88%, ASD_ADHD=3. 67%, TD=1.23%) 33% (ASD=18.34%, ADHD=7.32%,			

#### **Content Analysis of the Open-ended Question in the Surveys**

The open-ended questions in the surveys were analysed by content analysis with an inductive (data-driven) approach. Content analysis is a systematic and rigorous research method that may be utilised in quantitative, qualitative and mixed modes frameworks of research (White & Marsh, 2006) and it has been used in previous research in psychology to analyse open-ended questions in the questionnaire (e.g., Ricci-Cabello et al., 2017). I followed the recommend four steps (Krippendorff, 2004). Firstly, I selected the data obtained from the open-ended questions from the questionnaires. I then read the data and highlighted the words and phrases that appeared to capture the key concepts relevant to the topic's questions. Next, I generated codes (n=111) from the data, which later were categorised into meaningful clusters. All codes were generated separately for open-ended questions across the three groups of questionnaires (education professionals, n=72 codes; caregivers, n= 18 codes, young people, n=21 codes). Subsequently, I developed six themes from the codes (two themes per each group), some themes had subthemes and also included specific components (See Table 5 for themes and Table 6 for example quotes). I also utilised the NVivo software to conduct that analysis.

#### Group 1. Educational Professionals

Two themes were developed from the open-ended questions in the survey for educational professionals:1) Concerns about students' romantic relationships, and 2) Directions to the enhancement of sexuality education.

Theme 1. Concerns about students' romantic relationships

In total, 82% (n=9) (out of all participants n=11) of the educational professionals completed the open-ended questions referring to students' romantic relationship experiences. In their answers, educational professionals highlighted a few aspects of romantic relationship concerns with regard to their students. Interestingly, similar aspects of these concerns were identified for all four groups of the students: autistic students, students with ADHD, students with a dual diagnosis (ASD co-occurring with ADHD) and neurotypical students.

*Lack of knowledge* of romantic relationships was an element stressed by 82% (n=9) of the educational professionals across the four groups, with the greatest emphasis of this aspect on autistic students (as reported by 64% [n=7] of the educators) then students with ADHD (as reported by 36% [n=4] of the educators) and students with ASD co-occurring with ADHD (as reported by 36% [n=4] of the educators ) and TD students (as reported by 18% [n=2] of the educators).

*Vulnerability to exploitation* was mentioned by many educational professionals (73% [n=8]) while discussing their perceptions of romantic relationships across the four groups of students (64% [n=7] of the educators reported this aspect for the autistic group; 54.5% [n=6] of the educators reported this aspect for the group with ADHD; 73% [n=8] of the educators reported this aspect for the group with ADHD; and 27% [n=3] of the educators reported this aspect for the TD group).

Educational professionals (27% [n=3]) also reported a variety of romantic relationship concerns that may stem from students' conditions (*Condition stemmed concerns*), and which might affect their romantic relationship experiences. In terms of autistic students, the stated concerns included communication challenges, rigid thinking, autistic behaviours (e.g., slipping hands, inappropriate eye contact [too intense or absent], rocking, making noises) or being perceived as "weird" or "different". Similarly, for students with ADHD, educational professionals' (27% [n=3]) concerns included areas such as conduct problems, being perceived as "weird" or "different" or

rejection sensitivity. For students with a dual diagnosis, the biggest emphasis was placed on the possibility of their misconduct within their romantic relationships (as reported by 54.5% [n=6] of the educators).

Theme 2. Directions to the enhancement of sexuality education

Around 55% (n=6) (out of all participants, n=11) of the educational professionals answered the open-ended questions referring to students' sexuality education. Educational professionals mentioned different ways of providing improvements to the current sexuality education for young people. The most frequently mentioned ways for all four groups of students were: *tailored sexuality education* (as reported by 54.5% [n=6]), *technology-enhanced sexuality education* (as reported by 36% [n=4]), *collaborative sexuality education* (as reported by 27% [n=3]), *and inclusion of specific topics* (as reported by 36% [n=4]) (this last one was not indicated for the neurotypical group).

In terms of *tailored sexuality education*, some educators (54.5% [n=6] for the autistic group; 36% [n=4] for the group with ADHD; 45% [n=5] for the group with ASD co-occurring with ADHD) believed it was important to provide teaching which would be appropriate for students' individual needs especially when discussing the neurodivergent groups. Interestingly, one educator (Educator 10) (9%) was also of the opinion that *tailored sexuality education* would also be beneficial for neurotypical students.

*Technology-enhanced sexuality education* was another suggestion provided by educators for all groups of students (36% [n=4] for the autistic group; 18% [n=2] for the group with ADHD; 27% [n=3] for the group with ASD co-occurring with ADHD; and 27% [n=3] for the TD group). Notably, some educators (27% [n=3] for the autistic group; 18% [n=2] for the groups with ADHD; 27% [n=3] for the group with ASD co-occurring with ADHD; and 18% [n=2] for the TD group) voiced their opinions on utilising the internet as a technology-based tool to learn about sexuality. Interestingly, all of them highlighted the inaccuracy of the information that students may receive while learning about

sexual topics from that source.

For some educators (27% [n=3] for the autistic group; 18% [n=2] for the group with ADHD; 27% [n=3] for the group with ASD co-occurring with ADHD; 18% [n=2] for the TD group) it was important that sexuality education should occur in collaboration (*Collaborative sexuality education*) with some other institutions, individuals but, most importantly, with students' caregivers. Interestingly, one educator (Educator 4) (9%) pointed out that one of their students knowing they [the educator] were autistic themselves "*wanted to talk about her understanding of intimacy and human relationships*" with that particular educator, indicating that some students might feel more open to discuss their sexuality with someone akin to them (e.g., has the same condition).

Another essential facet of sexuality education reported by some educators for all groups of neurodivergent students (36% [n=4] for the autistic group; 9% [n=1] for the groups with ADHD; 18% [n=2] for the group with ASD co-occurring with ADHD) was the *inclusion of specific topics* such as, for example, topics referring to romantic relationships or safe sex and the impact of sex in general on romantic relationships. Notably, none of the educators mentioned the importance of including specific topics for neurotypical students. Interestingly, one educator (Educator 10) (9%) highlighted that young people across all four groups could learn about sexuality from their own or someone else's experiences by reflecting on past events.

# Group2. Caregivers

Two themes were generated from the open-ended questions in the survey for caregivers: 1) Approaches towards children's romantic relationships; and 2) Directions to the enhancement of sexuality education.

Theme 1. Approaches towards children's romantic relationships

All participants (63.6% of caregivers of autistic children, 18.2 % of caregivers of children with ADHD, 18.2 % caregivers of children with ASD co-occurring with ADHD) completed openended questions referring to their children's romantic relationship experiences. In their answers, caregivers demonstrated two types of approaches regarding their children's romantic relationships: *optimistic* and *pessimistic*. 10.18% of caregivers of autistic children, 3.09% of caregivers of children with ADHD, 3.09 % of caregivers of children with ASD co-occurring with ADHD showed *optimistic approaches* reporting that their children had a great desire for building a romantic relationship. Contrarily, the majority of parents (52.78% of caregivers of autistic children, 15.10% of caregivers of children with ADHD, 15.10 % caregivers of children with ASD co-occurring with ADHD) demonstrated *pessimistic approaches* towards their children's potential romantic relationships, reporting various barriers to these relationships.

These *pessimistic approaches* included *conduct challenges*, which according to some parents (5.9% of caregivers of autistic children, 4.55% of caregivers of children with ADHD, 4.55% caregivers of children with ASD co-occurring with ADHD) might hinder their children's potential romantic relationship experiences. Some caregivers (5.9% of caregivers of autistic children, 4.55% of caregivers of children with ADHD, 4.55% caregivers of children with ASD co-occurring with ADHD) voiced concerns about their children's *rejection sensitivity*, which might affect their children's capability of dealing with potential rejection by their romantic partner or someone with whom they may want to be in a partnership. Children's *vulnerability to exploitation* while in a romantic relationship was a considerable concern stressed by 26.71% of caregivers of autistic children with ASD co-occurring with ADHD, 7.64% of caregivers of children with ASD

Theme 2. Directions to the enhancement of sexuality education

In the open-ended questions referring to children's sexuality education, the majority of parents (42.61% of caregivers of autistic children, 12.19% of caregivers of children with ADHD,

12.19 % of caregivers of children with ASD co-occurring with ADHD) suggested various ways of improving the current sexuality education their children receive.

*Inclusion on specific topics* such as, for instance, how to build and maintain romantic relationships was one of the essential aspects highlighted by 5.9% of caregivers of autistic children, 4.55% of caregivers of children with ADHD, 4.55% caregivers of children with ASD co-occurring with ADHD.

*Tailoring sexuality education* specifically for the needs of children was another vital factor in enhancing sexuality education as voiced by 5.9% of caregivers of autistic children, 4.55% of caregivers of children with ADHD, 4.55% caregivers of children with ASD co-occurring with ADHD.

Notably, 10.18% of caregivers of autistic children, 3.09% of caregivers of children with ADHD, 3.09% of caregivers of children with ASD co-occurring with ADHD believed that it was vital to ensure providing *socially inclusive sexuality education* that their nonbinary children can also benefit from.

# Group 3. Young People

Two themes were identified from the open-ended questions from the survey for young people: 1) Barriers to romantic relationships, and 2) Approaches towards sexuality education.

## Theme 1. Barriers to romantic relationships

In the open-ended questions referring to romantic relationship experiences, 2.78% of autistic young people, 11.1% of the young people with ADHD, 8.35% of the young people with ASD cooccurring with ADHD, 2.8% TD young people spoke about various barriers that may hinder building and maintaining their romantic relationships. Within the barriers, they reported *internal and external barriers*.

Internal barriers included participants' feelings, mostly fear, which affected their views on romantic relationships. One of the aspects of *internal barriers* was *fear of being an inadequate romantic partner* that was highlighted by 21.68% of autistic young people, 8.65% of the young people with ADHD, 6.51% of the young people with ASD co-occurring with ADHD, 2.18% TD young people. Another important element of the *internal barriers*, which was highlighted by 15.56% of autistic young people, 6.21% of the young people with ADHD, 4.67% of the young people with ADHD, 1.56% TD young people was the *fear of being misjudged* while trying to initiate contact with other young people, their potential romantic partners. 6.11% of autistic young people, 2.44% of the young people spoke about the *fear of being oneself* when being in a romantic relationship or initiating a new acquaintance and 6.11% of autistic young people, 2.44% of the young people spoke about the *fear of being oneself* when being in a romantic relationships.

*External barriers* included elements from participants' external world's that affected their views on their romantic relationships. *External barriers* incorporated three main factors reported by participants: *lack of knowledge, communication challenges and vulnerability to exploitation*. A *vulnerability to exploitation* was a vital facet that affected perceptions of romantic relationships for a substantial number of young people (2.78% of autistic young people, 11.1% of the young people with ADHD, 8.35% of the young people with ASD co-occurring with ADHD, 2.8% TD young people). *A lack of knowledge* about how to initiate and build romantic relationships was a significant hindrance for 15.56% of autistic young people, 6.21% of the young people with ADHD, 4.67% of the young people with ASD co-occurring with ADHD, 1.56% TD young people. *Communication* 

*challenges* within romantic relationships was a substantial problem for some young people (6.11% of autistic young people, 2.44% of the young people with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 0.61% TD).

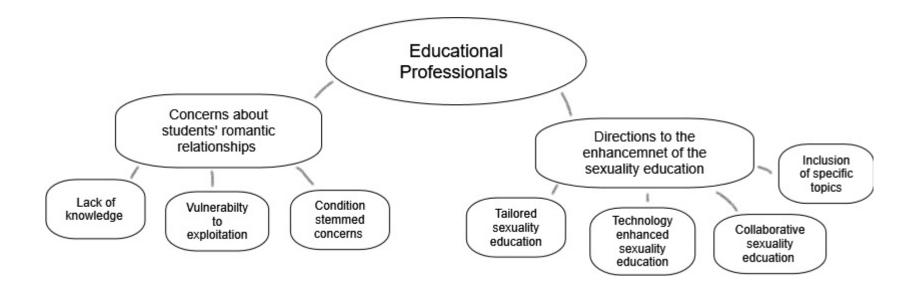
#### Theme 2. Approaches towards sexuality education

In the open-ended questions referring to sexuality education, 40.03% of autistic young people, 15.98% of the young people with ADHD, 12.02% of the young people with ASD cooccurring with ADHD, 4.03% TD young people expressed their attitudes towards the current sexuality education. Many participants (40.03% of autistic young people, 15.98% of the young people with ADHD, 12.02% of the young people with ASD co-occurring with ADHD, 4.03% TD) reflected on the insufficiency of sexuality education they had received. Some of them (24.46% of autistic young people, 9.76% of the young people with ADHD, 7.34% of the young people with ASD co-occurring with ADHD, 2.46% TD) highlighted the deficiency in covered topics. Several young people (18.34% of autistic young people, 7.32% of the young people with ADHD, 5.51% of the young people with ASD co-occurring with ADHD, 1.84% TD) felt the lessons were socially noninclusive. Some participants (6.11% of autistic young people, 2.44% of the young people with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 0.61% TD) believed that the learning environment was an important factor in providing sexuality education, however, they experienced an *unconducive learning environment*. Additionally, a couple of participants (6.11% of autistic young people, 2.44% of the young people with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 0.61% TD) reflected on the *poor delivery* of sexuality teaching. Interestingly, many of these young adults (18.34% of autistic young people, 7.32% of the young people with ADHD, 5.51% of the young people with ASD co-occurring with ADHD, 1.84% TD) stressed the *inaccuracy of the internet resources* when learning about sexual topics.

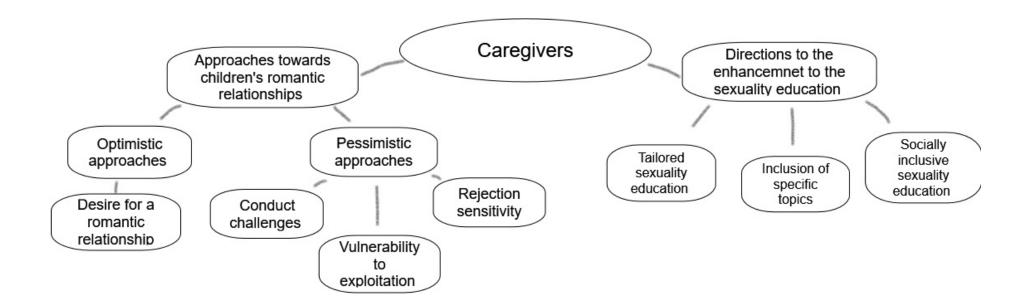
Consequently, some participants (12.23% of autistic young people, 4.88% of the young people with ADHD, 3.67% of the young people with ASD co-occurring with ADHD, 1.23% TD) highlighted the need for providing enhancements to the current sexuality education. Focus on providing *tailored sexuality education* was one of the *directions to the enhancement of sexuality education* voiced by 6.11% of autistic young people, 2.44% of the young people with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 0.61% TD young people. Ensuring good *accessibility* to sexuality learning was an important element stressed by 6.11% of autistic young people, 2.44% of the young people with ASD co-occurring with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 0.61% TD young people with ASD co-occurring with ADHD, 1.83% of the young people with ASD co-occurring with ADHD, 0.61% TD young people with ASD co-occurring with ADHD, 0.61% TD young people.

Figure 1. Thematic map developed from the open-ended questions in the surveys for each group of participants.

Thematic map developed from the open-ended questions in the questionnaire for educational professionals.



Thematic map developed from the open-ended questions in the questionnaire for caregivers.



Thematic map developed from the open-ended questions in the questionnaire for young people.

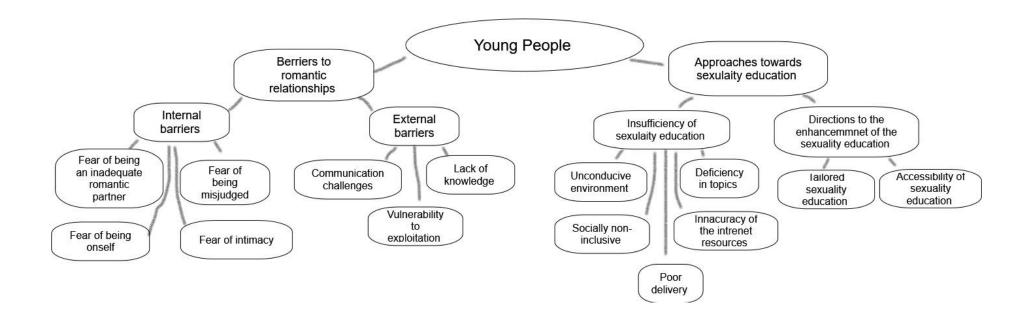


Table 7. Example quotes in reported themes and sub-themes.

Educational Professionals			
Theme	Sub-theme	Example quotes	
Concerns about students' romantic relationships	Lack of knowledge	"Struggling with concept of dating, unpredictability and emotions, can cause anxiety, depression and mental health." (Educator 10 spoke about students with ADHD)	
		"The inability to express in a healthy way, wants, desires and feelings. Students may not be clear on what is expectable both physically and emotionally speaking." (Educator 11 about students with ASD co-occurring with ADHD)	
	Vulnerability to exploitation	"Emotional (e.g., manipulation, gaslighting, ghosting.) Financial. Sexual. Modern slavery Self-neglect resulting from lowered self-esteem. Radicalisation and county lines mulling. Being pressured into drugs or substance misuse/abuse. Being lured into gangs." (Educator 7 about autistic students) "Convince them to do something they don't want to do (running away from home, stealing, skip lessons, drink, use drugs" (Educator 5 about students with ADHD)	
	Condition stemmed concerns	"Students with ASD may be more vulnerable to standing out to potential dating partners as different, mouldable and easier to control and make fun of." (Educator 11 about autistic students) "High impulsivity. Being overly and/or inappropriately tactile." (Educator 7 about students with ADHD)	
Directions to the enhancement of sexuality education	Tailored sexuality education	"To meet individual students' difficulties, for example, communication, emotions, anxiety." (Educator 10 about autistic students) "Program to individualised to meet learners needs." (Educator 10 about neurotypical students)	

Technology- enhanced sexuality	"We try to make the sessions as interactive as possible, not just relying on discussion or worksheets, but on debates, videos and music" (Educator 7 about students with ADHD)
education	"videos of other young people - visual aids" (Educator 3 about students with ASD co-occurring with ADHD)
Collaborative sexuality education	"We currently have to gain parental consent. It allows us and the parents to all be consistent and use similar techniques and terminologies." (Educator 7 about autistic students) "Family/professional involvement." (Educator 11 about students with ASD co-occurring with ADHD)
Inclusion of specific topics	"understand about relationships and how to act appropriately in different relationships" (Educator 1 about autistic students) "We need to be more open and normalise discussing gender roles, power imbalances, pornographic habits and what "normal and healthy" sex and relationships look like." (Educator 7 about students with ASD co-occurring with ADHD)

Caregivers			
Theme	Sub-theme	Example quotes	
Approaches	Optimistic	- Desire for a romantic relationship:	
towards children's romantic	approaches:	"he really wants a girlfriend" (Caregiver 1 about their autistic child)	
relationships	Pessimistic	- Conduct challenges:	
	approaches:	"The stalking behaviour- I have had three girls contact me in the past concerned that he isn't getting the message." (Caregiver 9 about their autistic child)	
		- Rejection sensitivity:	
		"If he likes someone, I think that he will just expect them to like him back It worries me if they don't." (Caregiver 8 about their autistic child)	
		- Vulnerability to exploitation:	
		"Unable to "read faces" makes my daughter vulnerable." (Caregiver 8 about their autistic child)	
Directions to the	Inclusion of	"Include mental aspects of being in a relationship." (Caregiver 2 of a child with ADHD)	
enhancement of	specific topics		

sexuality education		"emphasis needs to be on the inter-personal navigation of relationships in education. Looking at communication s in relationship, looking at reading body language." (Caregiver 5 of an autistic child)			
	Tailored sexuality education	"a chance to discuss concerns/questions in a smaller, safer setting where my son could drop masking would be great" (Caregiver 4 of an autistic child 4)			
	cuddation	"whatever appropriate for special child" (Caregiver 1 of an autistic child)			
	Socially inclusive sexuality education	"My child is nonbinary. This was never discussed in school, so they felt out of the loop and not represented." (Caregiver 4 of an autistic child)			
	cuddation	Young People			
Theme	Sub-theme	Example quotes			
Barriers to romantic relationships	Internal barriers	<ul> <li>Fear of being an inadequate romantic partner:</li> <li><i>"I don't want to be a partner who is inconsiderate, or controlling, or obsessive, or manipulative. I don't want to scare people away or make them uncomfortable."</i> (An autistic young person 9)</li> <li>Fear of being misjudged:</li> <li><i>"My behaviour sometimes comes across as flirting when I'm just being friendly; I don't always know the boundaries with other people."</i> (A young person with ASD co-occurring with ADHD 10)</li> <li>Fear of being oneself:</li> <li><i>"Also, I try to supress typically autistic behaviours like stimming."</i> (An autistic young person 3)</li> <li>Fear of intimacy:</li> <li><i>"I am really uncomfortable with physical intimacy, in fact I'm great at online dating but often interest is replaced by panic as soon as I meet the other person."</i> (A young person with ADHD 18)</li> </ul>			
	External barriers	<ul> <li>Vulnerability to exploitation:</li> <li><i>"that they will take advantage of me, or gaslight/manipulate me"</i> (A young person with ADHD 17)</li> <li>Lack of knowledge:</li> <li><i>"Not knowing when/how to initiate 'typical' romantic/sexual behaviours."</i> (An autistic young person 3)</li> </ul>			

		- Communication challenges: "Conversations felt like hopeless, exhausting labyrinths with traps around every corner. I was never understood, and I was never respected." (A young person with ASD co-occurring with ADHD 14)
Approaches towards sexuality education	Insufficiency of sexuality education	- Deficiency in topics: <i>"It wasn't very extensive. It was basically just a few plain facts and details that I already knew, and I don't feel that I gained anything from it."</i> (A young person with ASD co-occurring with ADHD 14)
		- Socially non-inclusive: "It should've been much more inclusive and taught same to everyone (ours was split by gender) always very centered on heterosexuality which was not helpful; concerning that they didn't teach everyone the same content (split by gender)." (A young person with ADHD 16)
		- Unconducive environment: <i>"My classmates tended to be conservative-leaning and immature, making it an uncomfortable environment."</i> (An autistic young person 12)
		- Poor delivery: "The teachers were uncomfortable or unknowledgeable when it came to certain topics." (An autistic young person 12)
		- Inaccuracy of the internet resources: "My concern is that we shouldn't have to go to the internet for that. It's hard to distinguish what is accurate and what is not." (An autistic young person 13)
	Directions to the enhancement of sexuality education	- Tailored sexuality education: "I think face-to-face teaching with the option of individual, private questioning/discussion afterward would be nice. This way, the instructor is free to explain and demonstrate however they need to, but students do not feel pressured to reveal intimate/personal struggles in a group setting." (A young person with ADHD 15)
		- Accessibility of sexuality education: <i>"Something where we could easily find who to contact and for which issues."</i> (A young person with ADHD 18)

Appendix 11: Examples of The Thematic Analysis Phases for Each Group of Participants (Study 3).

#### Examples of the TA analysis phases for each group of participants (Study 3)

After writing up the analysis for the first three groups of young people (NT, autistic, with ADHD) (the tables providing details of those analyses are available on request), it was obvious that there was a lot of repetition in terms of the reported experiences of sexuality education and romantic relationships across those groups of young people. After discussing it with my supervisors, the decision was to combine all young people's groups' analyses into one. That would help to highlight the similarities and differences among the groups of participants in terms of their romantic relationship experiences and sexuality education.

The table 21 provides details on the TA analysis for young people, educational professionals, and caregivers.

**Table 21.** TA analysis for young people, educational professionals, and caregivers.

Young People (NT)	I would like to note some specific observations I had during the specific interviews:
	P3 (NT YP) speaks disrespectfully about sex educationuses phrases such as "bla, bla, bla"
Phase 1: Familiarisation: notes extract.	indicating that what they thought about their sex education was nonsense, and not worth mentioning.
	I am under the impression that P3 makes fun of the catholic approach to teaching sex education to young
During this phase, I listened to the recordings of the	people. He speaks about it as if the provided teaching was something detached from reality (religion and
semi-structured interviews (SSIs) a few times and I	real life do not co-exist).
was also reading the transcripts, which were provided	It is also interesting to notice that across the whole dataset for NY YP, all participants, but one (P11)
by the software (Microsoft Teams or Otter) and	have mostly negative experiences with the sex education they received in their schools/colleges.
making corrections to them (neither of the software	P11 speaks about positive aspects (e.g., they mentioned discussions as one of the ways of providing
was precise enough, therefore, the transcripts required	lessons about sexuality), which did not happen/were not provided to the rest of the participants in this
corrections). While doing this, I started making initial	group. My thoughts are whether this discrepancy might be that P11 might simply have a more positive
reflective notes on the first impressions I got from the	outlook in general on life and hence they saw their sex education in a more positive light than the rest of
SSIs. I asked myself a few questions, for example, I	the participants, or perhaps they attended a school/college that provided a 'better' sex education than
tried to understand what stood out in the data on first	the majority of other schools in the UK (as highlighted by the YP). I am pleased to listen to some positive
and then closer reading. I was trying to understand	views on the current sex education, though.
participants' perspectives and why they made sense of	In general, however, the accounts of the YP indicate that the current sex education in the UK is focused
their experiences in the particular ways that they	on heteronormative teachings on the subject, making it no use for many young people who belong to the
described; how I would feel if I was in their position;	LGBT+ community. Moreover, sex education, as described by YP is very limited and the teachings focus

what type of world has been revealed through their experiences etc.	mostly on the biological site of sexuality (pregnancy), completely excluding aspects of romantic relationships. As a result, the YP's experiences in their romantic relationships are often not positive. YP
	often learn about navigating their romantic relationships through conversations with their peers and their own experiences. Many of the YP also do not converse on sexuality with their parents. If they had
	some conversations, they were very basic mostly related to contraception or warnings not to get
	pregnant. YP appear to be left to search for information about their sexuality and how to navigate
	romantic relationships by themselves.
	What strikes me when participants talk about their conversations with their parents about sexuality, is the fact that many of these YP do not feel comfortable about speaking to their parents on many topics
	related to sexuality, if they do have the conversations, however, they are mostly about contraception and
	pregnancy avoidance. Another interesting thing is that if YP speak about sexuality with their parents,
	they speak mostly to their mothers as opposed to fathers. Fathers seem not to be included in such
	discussions at all.

### Young People (NT)

Phase 2: Coding: pictures of the code developing in NVivo.

Coding: I read the dataset many times and I started making codes. My codes were detailed, and they aimed to capture single meanings or concepts related to the whole dataset. I coded at a range of levels including explicit, surface meaning (semantic codes) and implicit, conceptual meaning (latent codes).

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1.	Illiberal sexuality ideology
	Christian attitudes toward sexuality
	Taboo topic
	Heteronormative and substandard sex education
	Focus on biological aspects of sexuality
6.	Lack of topics related to romantic relationships
7.	LGBTQ+ individuals feeling excluded
8.	Amusing sex ed
9.	Embarrassing sex ed
10.	Simplistic ways of delivery
11.	Some teachers ill-equipped
12.	Lack or very limited sexuality communication with parents
13.	Parents have heteronormative attitudes toward sexuality
14.	Mothers are the main educators
15.	The internet - a popular source of sexuality education
16.	Easy access to pornography
17.	Sex education needs improving
18.	Normalising sex ed
19.	Making sex ed inclusive
20.	Including topics related to sexual pleasure
21.	Including topics related to romantic relationships
22.	Signposting young people
23.	Professionals as sex ed educators
24.	Uncharted territory of romantic relationships. Subtheme
25.	Communication challenges
26.	Learning through experience
	<ol> <li>7.</li> <li>8.</li> <li>9.</li> <li>10.</li> <li>11.</li> <li>12.</li> <li>13.</li> <li>14.</li> <li>15.</li> <li>16.</li> <li>17.</li> <li>18.</li> <li>19.</li> <li>20.</li> <li>21.</li> <li>22.</li> <li>23.</li> <li>24.</li> <li>25.</li> </ol>

Young People with ADHD	I feel like the interviews with this group of participants went really well. Some of the participants were really
Phase 1: Familiarisation: notes extract.	open when discussing their sex and romantic relationships education. Some of them disclosed information about
	experiencing abuse and, in general, how abuse was an important topic to teach to young people as it happens
During this phase, I listened to the recordings of the	more often than we may imagine. I felt really sad listening to some of those terrible stories that the young people
SSIs a few times and I was also reading the transcripts,	shared with me regarding their experiences with abuse. One participant started crying when sharing stories
which were provided by the software (Microsoft	about her abusive romantic encounters. I can imagine that it is not easy to share such sad experiences with
Teams or Otter) and making corrections to them	someone you do not know, yet she really wanted to tell me all the things she did. She wanted me to be aware of
(neither of the software was precise enough, therefore,	the real situations that some young people are going through (since, as she said, many of her friends were in
the transcripts required corrections). I also started	similar positions). I felt extremely humbled that she and all the other participants trusted me and felt
making initial reflective notes on the first impressions I	comfortable with me telling me all those intimate stories. I could tell, from talking to these young people, that
got from the SSIs. I asked myself some questions	this group's experiences were more challenging than the NT group. From the interviews of some of the
regarding the recordings. For example, I tried to	participants, it was obvious that the topic of sexuality and romantic relationships was very important to them
recognise the most distinguished aspects in the	and that they really wanted to contribute to the research. One participant thanked me for doing this very
participants' narratives; why they spoke about some	important project (as she called it). She was very open about the inadequacy of the current sexuality education
things the way they did, how they felt about specific	in her school and her home, so she was happy to see that someone is trying to tackle the problem. That
situations they described concerning their sexuality	appreciation made me feel truly rewarded. I was obviously aware of the problem and hence the topic of my
and romantic relationship experiences, and how I	project, but it was great to receive a confirmation from a young person about it. Interestingly, some of the
would feel in their position, what type of world has	participants in this group asked me to share the interview question guide in advance with them, which I was
been revealed through their experiences, etc.	happy to do. During the interview with those specific participants, it was clear that they, in a way, got prepared. I was also happy that female and male participants came to speak to me about their sexuality education.
	Contrarily to the NT group, all participants in this group identified as she or he, there were no other gender
	identities, which was interesting. Although all participants acknowledged the lack of inclusivity in the current
	sexuality education and the importance of teaching inclusive sexuality education, this topic, in general, did not
	seem like such a great issue in this group as it was for the NT group. I thought it was really interesting to notice
	the discrepancy about it between the groups.
	ine auserepaney about it between the groups.
	Some notes regarding the specific interviews
	While listening to the interview with P2, what stroke me about it was that they were saying that they were not
	satisfied with the sex ed they had in their school. However, when they spoke about their teacher's knowledge
	regarding sex education, they said since they were a teacher, they must have good knowledge about the subject
	(although it was not reflected in the teaching). This is interesting and it may indicate that teachers are
	authorities and trustful sources of information for students, despite that the student may still be unsatisfied with
	the particular teaching about a specific subject they received. Another interesting thing about this interview was

	that the participant said they learnt a lot about romantic relationships from movies and they all the reality of the information that the films might have portrayed (which was contradicto the NT YP said with regards to learning about sexuality from films).		
Young People with ADHD Phase 2: Coding: pictures of the code developing in NVivo. Coding: I read the dataset many times and I then started making codes. My codes were detailed, and they captured specific meanings and ideas related to the dataset. The majority of the codes I created were at a semantic level. Some of them I created at a latent level. Specifically, I created latent codes when I recognised that what a participant was saying referred to some specific concept existing in the current literature on the topic, e.g., hetero activism.	A Name abuse a taboo subject abuse a very serious topic abuse overed with parents abuse not treated seriously enough additional classes on sex after school ADHD and romantic relationships advocating independence awkward and not serious approach to sex ed by teenagers anonymous sex ed attitudes towards teenage relationships attitudes towards non-heterosexuality attitudes towards professional support basic sex ed body acceptance should be normal casual romantic relationships challegnes with bad habits in a relationship	B       C         Files         7       3         2       2         1       4         3       4         3       4         4       3         4       3         1       1         7       8         2       5         2       1	Interpretation of the system of the syste
	sibility: Good to go		

<b>Young People with ADHD</b> Phase 3: Searching for themes. During this phase, I began to identify patterned (things that kept repeating) meanings across the whole dataset with young people with ADHD, and I then started	female slut shaming experience <b>eet1</b> ibility: Good to go 1. Casual and short romantic relationships 2. The impact of ADHD on romantic relationships 3. Communication obstacles 4. Romantic relationships- a way to self-development	1	1
	feeling wanted by someone	2	2
	external sex ed feeling confident about own abilities to build a romantic relationship	7	9 1
	experience of serious romantic relationships	2	2
	experience of gay relationship	1	1
	experience of dating assholes	1	52
	experience of a batrayal in a relationship experience of abuse	3	5 32
	drinking and drugs involvement	1	1
	developing self through romantic relationship experiences	7	17
	detention and prevention of abuse	5	24
	delivery of sex ed	7	14
	dad-child sex ed	5	11
	current romantic relationships	3	3
	consequences of lack of knowledge about romantic relationships cultural stygma regaring sexuality	4	12 3
	communication challenges in the relationship	5	11

that captured the most distinctive aspects of the whole	9.	Non-inclusive sex ed
data in this group.	10.	Lack of topics related to romantic relationships
	11.	Simplistic way of delivering sex ed
	12.	Neglectful approach (by students and teachers) to teaching sexuality education
	13.	Poor or non-existence parent-child sexuality communication
	14.	Mothers main sex educators at home
	15.	External sexuality education
	16.	Pornography - a powerful sexuality education
	17.	Trial and error- a real-life educators
	18.	Suggestions for improving sexuality education
	19.	earlier delivery of sex ed
	20.	Inclusive sex ed
	21.	Inclusion of romantic relationships
	22.	Signposting young people
	23.	Normalising positive things about sexuality
	24.	Professionals should be involved in sexuality education
	25.	Societal attitudes towards sexuality
		·

Young people with ASD	What stood out in the interviews in this group of young people was that the majority of participants provided
Phase 1: Familiarisation: notes extract.	direct, brief answers to the questions without elaborating on any specific aspects. I felt like some participants
	did not really want to share their experiences of sexuality education and romantic relationships with me. I am
During this phase, I listened to the recordings of the	not sure whether it was because they did not know me and as autistic people, they would need more time to first
SSIs multiple times, and I also read the transcripts. My	familiarise themselves with me before feeling open to discussing a sensitive topic such as sexuality, or simply,
focus was to notice what information the data, as a	their answers were short, straight to the point since autistic people are direct in their communication. I found
whole, was trying to convey and what aspects of it	this experience very different from the previous two groups of young people (NT and people with ADHD).
stood out most clearly. I also paid attention to my	Despite this, I was extremely grateful to all autistic young people who came to the interviews and shared their
emotions as a response to some of the information the	perspectives on sexuality education and romantic relationship experiences with me. Although some of the
participants provided and why I felt the particular way	answers were brief, they still provided crucial information on the topic.
I did. I knew I needed to let my emotions go in order to	

avoid interpreting the data in a biased way. I knew that, as a researcher, I needed to remain impartial as much as possible. The notes I made about the data during this phase also allowed me to reflect upon some participants' emotions about some aspects of the information they provided and try to understand why they felt that particular way, what it meant for them, etc.	One participant, in particular, was answering all the questions so briefly, that I was under the impression that they did not want to talk about sexuality at all. That surprised me as they contacted me themselves about the research and sounded like they were really interested in the topic. Yet, during the interview, they were answering the questions as if they wanted to avoid them. I gave them the question guide a few days in advance to allow them time to go through the questions, to know what to expect (I'm aware that autistic people might need extra time to process the information hence I was always happy to provide them with the examples of the questions prior to the interview). That particular participant had his camera off (which I also allowed and made all participants aware of this option in both PIS and CF). I was therefore a bit perplexed why they were not really answering the questions apart from providing very brief responses. In addition, I was under the impression that some other participants, although they were also given a question guide a few days before the interview, they did not look into it. They appeared not to know what to say to some of the questions. Perhaps another thing that might have contributed to their struggles with answering some of the questions could be anxiety. Perhaps they felt anxious and found it difficult to focus on what they wanted to say. Speaking about anxiety, one participant emailed me asking whether they could take part in the study by answering the questions via email as they believed that the interview would make them feel anxious, however, they were very brief, too brief to be good enough for an SSI. I replied explaining all of it, and eventually, the person agreed to meet with me online while having their camera off. This made me think that perhaps some autistic people who might have found this study interesting and important, however, did not participate in it due to their anxiety. Another reflection upon providing participants with the interview question guide
Young people with ASD	
Phase 2: Coding: pictures of the codes developing in	
NVivo.	
Coding: I read the dataset many times before starting	
to create codes. Since I was very well familiarised with	
the dataset, creating the codes was not a very difficult	
task. I created many codes, most of them at a semantic	

level but I also created some latent codes. The codes captured specific aspects of the data and they were very detailed. I later clustered the codes into a few specific umbrella concepts. I used NVivo to create the codes and once I finished, I exported the codes into an excel sheet. I then used colour-coding to gather the codes under various topic concepts.

	Α	В			
41	lack of understanding about romantic relationships		1		
42	lack of understanding about sexuality		1		
43	lack of understanding of what sex is		1		
44	little experience of romantic relationhips	:	2		
45	longing for a romantic relationship	·	1		
46	long-term romantic relationship experiences	1	2		
47	low romantic aspirations	1	2		
48	low self-esteem	-	4		
49	meaningless romantic relationships 1				
50	mental helath influence on romantic relationships 4				
51	navigating romantic relationships is challenging for neurotypical people let alone neurodivergent 1				
52	negative romantic relationship experiences 3				
53	no dating experience 1				
54	online flirting, dating 2				
55	online met boyfriend 1				
56	open romantic relationhips 1				
57	polymarous romantic relationhips 1				
58	prefer to be single than experience another bad romantic relationship		1		
	▶ Sheet1 (+)				

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	B1	$69 \qquad \checkmark : \times \checkmark f_{x}$		
		А	В	С
	71	usefulness of autism diagnosis		1
	72	ASD diagnosis issues		1
	73	conditions related to neurodiversity created obstacles in the relationship		5
	74	CBT for autism		1
	75	embarrassing sex ed		4
	76	amusing sex ed		1
	77	awkward sex ed		1
	78	awkward speaking about sex with strangers		1
	79	awkwardness about discussing romantic relationhips issues with teachers at school		4
	80	basic biological sex ed in school		7
	81	child pornography covered topic		1
	82	consequences of inadequate sex ed		1
	83	covered topics in school during sex ed		1
	84	delivery of sex ed		7
	85	heteronormative sex ed		2
	86	ill equipped teachers		3
	87	insignificant sex ed at school		1
	88	irrelevent sex ed		2
		▶         Sheet1         (+)		4
	Read			
Vouna noonlo with ASD				
Young people with ASD Phase 3: Searching for themes.	1. 2.	Societal approaches to sexuality Taboo topic		
I developed the tentative themes based on the topic	2. 3.	Heteronormative societal approaches		
clusters I grouped in the coding phase. These initial	4.	LGBTQ+ people feel discriminated against		

themes captured the most distinguishing features in the	5.	Not serious approach (laughing)
whole dataset. In total, I identified 29 initial themes in	6.	Not serious approach to teaching by some teachers
this group of young people.	7.	Ways of improving the current system of sexuality education.
	8.	Inclusion of topics in sexuality education in schools.
	9.	Inclusion of topics in parent-child sexuality communication.
	10.	Providing support related to sexuality and romantic relationships for autistic young people.
	11.	Heteronormative society.
	12.	Awkward sexuality education.
	13.	Limited sexuality education.
	14.	Basic biological sexuality education in schools.
	15.	Exclusion of topics related to romantic relationships.
	16.	Simplistic delivery of sexuality education.
	17.	Ill-equipped teaching staff to teach about sexuality and romantic relationships.
	18.	External avenues of gaining knowledge about sexuality and romantic relationships (peers, the internet,
	and ex	perience).
	19.	The role of professionals in sexuality education.
	20.	"Practically non-existent"- parent-child sexuality education.
	21.	Challenging romantic relationships
	22.	Communication issues
	23.	Mental health effects on romantic relationships
	24.	Feeling insecure
	25.	Showing inadequate behaviours
	26.	Lack of knowledge about relationships
	27.	Wanting a romantic relationship
	28.	Positive experiences of romantic relationships.
	29.	Neurodivergence- an obstacle in romantic relationships.

Young people with ASD co- occurring with ADHD Phase 1: Familiarisation: notes extract.	There were only four people with a dual diagnosis that contacted me to take part in the study. Interestingly, I was contacted by one participant who got the formal diagnosis of one condition (ADHD) and self-diagnosed another condition (ASD). However, one of the research criteria was to include participants with a diagnosis of both conditions for this particular group, therefore, I could not include that person as a participant in this group. I also was contacted by a couple of participants who had the dual diagnosis, but they did not meet the age criteria (one was older, and the other one was younger). Notably, dual diagnosis has been possible since 2013 when the DSM was updated. This may mean that compared to other groups of neurodivergent young people (single diagnosis of ASD or ADHD), there may be fewer people who have a formal diagnosis of ASD co-occurring with ADHD. Nevertheless, the participants who took part in the study spoke about their romantic experiences in a very open way. They shared with me the challenges they experienced in the relationships they had; what stood out in this group was that participants is and how to gain it (only some participants in the autistic group mentioned similar issues). Additionally, this was the only group that discussed the importance of asexuality. I was very grateful to all participants in this group to come and speak to me about this sensitive topic, especially as, from what they were saying, they felt very confused and lacked knowledge about the subject. It is possible, that some participants might have not contacted me, despite being interested in the topic of the subject. It is possible, that some participants might have not contacted me, despite being interested in the topic of the rest.
No. and which ACD and	to having little or no knowledge about it, and hence they might have felt they were not 'suitable' for the study.
Young people with ASD co-	
occurring with ADHD Phase 2: Coding: pictures of the	
codes developing in NVivo.	
Coding: I read the dataset many	
times before starting to create codes.	
Since I was very well familiarised	
with the dataset, creating the codes	
was not a very difficult task. I	
created many codes, most of them at	
a semantic level but I also created	
some latent codes. The codes captured specific aspects of the data	
and they were very detailed. I later	
clustered the codes into a few	
specific umbrella concepts. I used	
NVivo to create the codes and once I	

finished, I exported the codes into an excel sheet. I then used colour-		A	В	С	D
coding to gather the codes under	37	importance of teaching about hormonal affect on sexuality and relationships	1		1
various topic concepts.	38	importance of sex ed	1		1
various topic concepts.	39	immature approch to teaching about romantic relationships	1		1
	40	grooming was an issue no one talked about	1		1
	43	gender identity should be taught by parenst	1		1
	44	funny sex ed	1		1
	46	delivery of sex ed	1		2
	47	contraception affects hormones	1		1
	48	biological sex ed	4		7
	49	asexuality is normal thing	2		2
	50	lack of understanding regarding neurodiversity	1		1
		lack of understanding of the emotional side of relationships	1		2
	52	lack of knowledge what romantic relationship entails	2		5
		lack of knowledge how to gain a romantic relationship	1		3
		lack of knowledge about relationships	2		2
		lack of full understanding of own sexuality	1		1
		lack of friendships outside the school	1		1
	58	knowledge about sexuality through peer interaction	1		1

6.	fear of not being in a relationship	1	2
6	5 fear of intimacy	2	3
6	5 failed to form a romantic relationship	1	1
6	7 external sex educator	1	1
6	dual diagnosis and its affect on romantic relationships	1	2
6	asexual autistic peers hence no peer interaction on sex ed	1	1
7	) want to have a relationship	2	4
7	understanding onself through being with other neurodivergent people	1	1
7.	2 there are different types of love	1	1
7.	showing someone you are attracted to them	1	1
7-	a romance should not be forced upon	1	2
7	5 rejection sensitivity	1	1
7	5 problems with crushes on people	1	1
7	peer interaction	1	1
7	online you can be yourself	1	1
8	online communication is easier in terms of searching for a relationship	1	2
8	online boyfriend	1	1
8	not understanding hidden social roles	1	1
8	neurodivergency and romantic relationship	2	4

Young people with ASD co-	
occurring with ADHD	1. Societal approaches to sexuality
Phase 3: Searching for themes.	2. Religion and sexuality
I developed the tentative themes	3. Discrimination against LGBTQ+ people
based on the topic clusters I grouped	4. Challenges with romantic relationships
in the coding phase. These initial	5. Neurodiversity-related challenges
themes captured the most	6. Issues with intimacy
distinguishing features in the whole	7. Lack of knowledge about relationships
dataset. In total, I identified 26 initial	8. Mental health issues
themes.	9. Feeling vulnerable
	10. Feeling insecure
	11. Showing Inappropriate behaviours in a relationship
	12. Rejection sensitivity
	13. Wanting a romantic relationship
	14. Basic sex ed in schools
	15. Lack of teaching related to LGBTQ+ sexuality
	16. Lack of teaching related to romantic relationships
	17. Embarrassing sex ed
	18. Funny sex ed
	19. Lack of teaching about asexuality
	20. Not serious sex ed
	21. Some teachers lacked the skills/knowledge to teach sex ed
	22. Sex ed needs improving
	23. Basic parent-child sexuality communication
	24. Mothers main educators at home
	25. Parents undervalue non-heterosexuality
	26. Usefulness of involving professionals

All groups of young people (NT,	NT group
with ASD, with ADHD, with ASD	
with ASD, with ADHD, with ASD co-occurring with ADHD) Phase 4: Reviewing themes: I looked into the themes across all four groups of young people, and I noticed patterns of reported experiences across all groups; I then merged them using colour coding. Consequently, I developed nine themes from the colour-coded themes across the groups of young people.	<ol> <li>Illiberal sexuality ideology</li> <li>Christian attitudes toward sexuality</li> <li>Taboo topic</li> <li>Heteronormative and substandard sex education</li> <li>Focus on biological aspects of sexuality</li> <li>Lack of topics related to romantic relationships</li> <li>EMBTQ+ individuals feeling excluded</li> <li>Amusing sex ed</li> <li>Embarrassing sex ed</li> <li>Embarrassing sex ed</li> <li>Japarents have heteronormative attitudes toward sexuality</li> <li>Lack or very limited sexuality communication with parents</li> <li>parents have heteronormative attitudes toward sexuality</li> <li>mothers are the main educators</li> <li>sex education needs improving</li> <li>eads accusation needs improving</li> <li>making sex ed inclusive</li> <li>including topics related to sexual pleasure</li> <li>including topics related to acould pleasure</li> <li>including topics rela</li></ol>
	<ul> <li>16. easy access to pornography</li> <li>17. sex education needs improving</li> <li>18. normalising sex ed</li> <li>19. making sex ed inclusive</li> <li>20. including topics related to sexual pleasure</li> <li>21. including topics related to romantic relationships</li> <li>22. signposting young people</li> <li>23. professionals as sex ed educators</li> <li>24. Uncharted territory of romantic relationships</li> <li>25. Communication challenges</li> </ul>

The group with ADHD
<ol> <li>Casual and short romantic relationships</li> <li>The impact of ADHD on romantic relationships</li> <li>Communication obstacles</li> <li>Romantic relationships- a way to self-development</li> <li>Abuse- a topic not given serious enough attention</li> <li>Abuse- a taboo subject</li> <li>Detention and prevention of abuse</li> <li>Biological sexuality education in schools</li> <li>Non-inclusive sex ed</li> <li>Lack of topics related to romantic relationships</li> <li>Simplistic way of delivering sex ed</li> <li>Neglectful approach (by students and teachers) to teaching sexuality education</li> <li>Poor or non-existence parent-child sexuality communication</li> <li>Mothers main sex educators at home</li> <li>External sexuality education</li> <li>Pornography - a powerful sexuality education</li> <li>Trial and error- a real-life educators</li> </ol>
15. External sexuality education
17. Trial and error- a real-life educators
18. Suggestions for improving sexuality education 19. earlier delivery of sex ed 20. Inclusive sex ed
21. Inclusion of romantic relationships 22. Signposting young people
<ul> <li>23. Normalising positive things about sexuality</li> <li>24. Professionals should be involved in sexuality education</li> <li>25. Societal attitudes towards sexuality</li> </ul>

## The group with ASD 1. Societal approaches to sexuality 2. Taboo topic 3. Heteronormative societal approaches 4. LGBTQ+ people feel discriminated against 5. Not serious approach (laughing) 6. Not serious approach to teaching by some teachers Ways of improving the current system of sexuality education. 8. Inclusion of topics in sexuality education in schools. 9. Inclusion of topics in parent-child sexuality communication. 10. Providing support related to sexuality and romantic relationships for autistic young people. 11. Awkward sexuality education. 12. Limited sexuality education. 13. Basic biological sexuality education in schools. 14. Exclusion of topics related to romantic relationships. 15. Simplistic delivery of sexuality education. 16. Ill-equipped teaching staff to teach about sexuality and romantic relationships. 17. External avenues of gaining knowledge about sexuality and romantic relationships (peers, the internet, and experience). 18. The role of professionals in sexuality education. 19. "Practically non-existent"- parent-child sexuality education. 20. Challenging romantic relationships 21. Communication issues 22. Mental health effects on romantic relationships 23. Feeling insecure 24. Showing inadequate behaviours 25. Lack of knowledge about relationships 26. Wanting a romantic relationship 27. Positive experiences of romantic relationships. 28. Neurodivergence- an obstacle in romantic relationships.

The group with ASD co-occurring with ADHD
1. Societal approaches to sexuality
2. Religion and sexuality
3. Discrimination against LGBTQ+ people
4. Challenges with romantic relationships
5. Neurodiversity-related challenges
6. Issues with intimacy
7. Lack of knowledge about relationships
8. Mental health issues
9. Feeling vulnerable
10. Feeling insecure
11. Showing Inappropriate behaviours in a relationship
12. Rejection sensitivity
13. Wanting a romantic relationship
14. Basic sex ed in schools
15. Lack of teaching related to LGBTQ+ sexuality
16. Lack of teaching related to romantic relationships
17. Embarrassing sex ed
18. Funny sex ed
19. Lack of teaching about asexuality
20. Not serious sex ed
21. Some teachers lacked the skills/knowledge to teach sex ed
22. Sex ed needs improving
23. Basic parent-child sexuality communication
24. Mothers main educators at home
25. Parents undervalue non heterosexuality
26. Usefulness of involving professionals
New themes developed:
Theme 1: Societal ideology about sexuality
Theme 2: Substandard school-based sexuality education

Image:		
Ineme 5: The role of professionals in sexuality educationIneme 0: Young people and young exception exception of building comaine claitonshipsTheme 0: Experience of abuse in the neurodivergent young population is a serious matterTheme 0: Sex education needs improvingAll groups of young people (NT, with ADHD, with ADHD)Phase 5: First, after combining all groups of young people (1 ti was important to emphasise the neurodivergent young beaution is a serious matterName 0: Sex education needs improvingSubteme 1: Societal ideology about sexuality as table ot pic Subteme 1: Societal assumptions about sexual behaviours and relationships Subteme 3: Societal assumptions about sex education Subteme 3:		
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Subtheme 3) Communication difficulties
Theme 7: Neurodiversity-driven obstacles to building romantic relationships
Subtheme 1) Issues with intimacy
Subtheme 2) Feeling insecure
Subtheme 3) Mental health-related challenges
Subtheme 4) Inadequate knowledge
Subtheme 5) Exhibiting inappropriate behaviours
Subtheme 6) Feeling vulnerable
Subtheme 7) Feeling different
Theme 8: Experience of abuse in the neurodivergent young population is a serious matter
Subtheme 1) Prevalence of abuse
Subtheme 2) Abuse- a taboo topic
Subtheme 3) Victim blaming
Subtheme 4) Abuse- a neglected topic in education
Theme 9: Sex education needs improving
Subtheme 1) Learning about sexuality should start early
Subtheme 2) Importance of inclusive sex education
Subtheme 3) Inclusion of specific topics
Subtheme 4) Interactive way of teaching
Subtheme 5) conducive environment
Subtheme 6) Easy access to sexuality education and support
Final themes:
Theme 1: Societal ideology about sexuality
Subthemes
Sexuality as a taboo topic
Influence of religion on attitudes toward sexuality
• Construct of "hetero-activism"
Theme 2: Substandard school-based sexuality education

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Subthemes
Superficial and incomplete teaching
• It is embarrassing
• Untrained staff to teach sex education
Sex education needs improving
Theme 3: The role of adults in sexuality education
Subthemes
Limited parent-child sex and relationship-related discussions
Parental prejudice against children's non-heteronormative orientation
Ways of improving sex-related discussions with parents
The role of professionals in sexuality education
Theme 4: Pornography, as a very powerful alternative means of sexuality education
Theme 5: Young people and romance- a complicated world to navigate
Subthemes
Neurodiversity-driven obstacles to building romantic relationship
Theme 6: Experience of abuse in the neurodivergent young population is a serious matter

**Educational Professionals** 

Phase 1: Familiarisation: notes extract. I listened to the SSIs' recordings multiple times, and I also read the transcripts. I paid attention to what the narratives were trying to portray in terms of sexuality education and romantic relationships in young people. I was also making notes of the most salient aspects that came from the dataset. I reflected upon the notes I had made for some time in the following days. I tried to understand what information was the most distinctive in the data that educators wanted to share, and what that information meant for them. I also started noticing similarities between some of the information that the educators shared during the SSIs and the previous literature I read on the topic. I made some notes regarding those aspects.	I found the interviews with educators very interesting and informative. What stood out across the narratives was that the majority of the educators focused on providing information about sexuality education and especially romantic relationships related to autistic young people (although they all worked with young people with ADHD and ASD co-occurring with ADHD, too). This may indicate that autistic young people might be the group that needs special attention in terms of sex education or perhaps the educators that came to the interviews had the greatest knowledge on the topic about this group of young people as opposed to, for example, young people with ADHD and ASD co-occurring with ADHD. The educators were open about the lack of support for them in terms of sexuality education training. They also spoke about the challenges they experienced while teaching this very sensitive subject. Interestingly, the teaching assistants (TAs), that took part in the study, were very passionate about the subject as they understood the need of teaching it to young people, especially autistic young people. Those TAs received no training that would help them provide more appropriate sex education to young people, which made some of them feel dismayed about it. I was extremely grateful to educators to contribute to this very important topic and glad that they recognised the need for this research project. Interestingly, some of the participants said that they would share information about the project with their colleagues, however, they mentioned that many of their colleagues feel very uncomfortable discussing sexuality education for young people, specially autistic young people. Anyway, I was hoping that some more participants might contact me once the study was advertised by their colleagues (that took part in the interviews). However, to my knowledge, no one came to the interview based on that recommendation. The study was advertised to many schools in Greater Manchester as well as other parts of the UK. Many schools did not res
Phase 2: Coding: pictures of the codes developing in NVivo.	
Before starting to create codes, I familiarised myself with the dataset very well. I created many codes, most of them were at a semantic level and quite detailed, and some were at a latent level. Once I finished coding, I clustered them into groups of specific concepts. I used NVivo to create the codes and once I	

finished, I exported the codes into an excel sheet. I	B10		$\sim$ : $\times \checkmark f_x$			
then used colour-coding to gather the codes under	1 2		A	В	С	D
various topic concepts.		1	Name		Files	Reference
		2	inadequate training for satff		4	7
		3	challenges in teaching sex ed		2	4
		4	training for staff		6	31
		5	no training for staff		1	3
			no team work in sex ed		2	3
	+		ill-equipped teachers to support students		7	17
			sex ed training should be provided by experienced professionals	L	1	1
	+		professional sex ed for young ppl		6	14
	+	13	health professionals lack of knowledge about autism		1	1
		15	sex ed a great area topic		1	1
		16	hands on sex ed - practical		2	4
		17	places of sex ed for young ppl		1	3
		18	importance of sex ed		4	6
		19	frequency of lessons		1	1
		20	visual resourses unsuitable for autistic students		2	3
		21	use of resourses in teaching		8	34
		22	the internet as a place of information about sex ed		1	4
	4	Þ	Sheet1 (+)			:
	Ready	S.	Accessibility: Good to go			

	1 2	А	B C	D
		38 lacking topics in sex ed	1	1
		39 topics covered outside official curriculum	1	2
		40 topics covered during sex ed	7	26
		41 teaching related to LGBT	2	5
	+	42 teaching pornography	3	5
		44 teach autistic young ppl about autism	1	2
		45 sex ed programme in special college	1	2
		46 LGBT sex ed related topics	5	15
		47 importance of teaching autistic children about online safety	1	1
		48 functional quatient was only important	1	1
		49 distressing topics for autistic students	3	9
		50 sensory issues and needs in autistic students	2	3
	+	51 teaching in abstract is an issue for autistic ppl	1	1
		54 lack of sex ed from autistic teachers to autistic students	1	1
		55 inadequate sex ed for young ppl	6	20
		56 signposting about sexuality support for young pp	2	2
		57 students reflect the teaching in their behavious	1	2
		58 students have limited or no sexuality knowledge	1	2
	+	59 differences between students with ASD and ADHD	2	2
	4	Sheet1 (+)		÷ (•
	Ready	The Accessibility: Good to ap		_
Phase 3: Searching for themes.	1.	Inadequacy of school-based sexuality education		
I identified 28 tentative themes based on the topic	2.	Lack of topics related to LGBTQ+ sexuality		
clusters I grouped in the coding phase. These initial themes captured the most distinguishing features in the	3.	Topics specific to neurodivergent students		
whole dataset.	4.	Existing approaches to teaching sexuality education		
whole dataset.	5.	Use of technology in teaching		
	6.	Practical exercises		
	7.	Teaching approaches specific to neurodivergent students		
	8.	Knowledge about neurodiversity		
	9.	Role playing		
	1	. Tailoring sex ed to neurodivergent students' needs		

	<ul> <li>11. Current sexuality education is failing neurodivergent young people - a struggle with romantic relationships</li> <li>12. Lack of basic knowledge about romantic relationships</li> <li>13. Lack of ability to deal with change</li> <li>14. Neurodivergent students' attitudes to discussing sexuality and relationships with teachers</li> <li>15. Parental involvement in sex ed</li> <li>16. Appropriate environment for teaching</li> <li>17. Teachers would like to get the training to feel better equipped at teaching sexuality</li> <li>18. Inclusive sex ed</li> <li>19. Inadequate behaviours</li> <li>20. Vulnerability to exploitation</li> <li>21. Use of the Internet</li> <li>22. Sex education needs improving</li> <li>23. Early start to sex ed</li> <li>24. Inclusion of specific topics</li> <li>25. Collaborative efforts</li> <li>26. Professionals' involvement in sex ed</li> <li>27. Ill-equipped staff to teach sexuality education</li> <li>28. Teachers do not receive adequate training</li> </ul>
Phase 4: Reviewing themes: I started reviewing the initial themes; I combined some of the themes that belonged to the same category, I used colour-coding to do so (see phase above). Eventually, I developed nine new themes with subthemes.	<ul> <li>1. Inadequacy of school-based sexuality education</li> <li>Subtheme 1) Limited topics in teaching</li> <li>Subtheme 2) Non-inclusive of LGBTQ+ sexuality</li> <li>2. Topics specific to neurodivergent students</li> <li>Subtheme 1) Rejection</li> <li>Subtheme 2) Inappropriate behaviours</li> <li>Subtheme 3) Sexual safe and online safety</li> <li>Subtheme 4) Distressing topics</li> <li>Subtheme 5) Topics related to LGBTQ+ sexuality</li> <li>Subtheme 6) Need for signposting</li> <li>3. Existing approaches to teaching sexuality education</li> <li>Subtheme 1) Hands-on exercises</li> </ul>

	Subtheme 2) Application of technology
	Subtheme 3) Danger of utilising the Internet
	4. Teaching approaches specific to neurodivergent students
	Subtheme 1) Importance of differentiating the adaptation of teaching for autistic students and students with
	ADHD
	Subtheme 2) Utilising specific programmes designed for autistic students
	Subtheme 3) Role-playing
	Subtheme 4) Lack of tailored resources
	5. Current sexuality education is failing neurodivergent young people - a struggle with romantic
	relationships
	Subtheme 1) Normalising sexuality for neurodivergent people
	Subtheme 2) Lack of basic knowledge related to romantic relationships
	Subtheme 3) Inability to deal with a change
	Subtheme 4) Vulnerability to exploitation
	Subtheme 5) Impulsivity
	6. Educator's views on neurodivergent students' attitudes to discussing sexuality and relationships with
	teachers
	7. Sex education needs improving
	Subtheme 1) Learning about sexuality should start early
	Subtheme 2) Importance of a conducive environment
	Subtheme 3) Inclusive sex education
	Subtheme 4) Inclusion of specific topics
	8. Collaborative efforts
	Subtheme 1) Importance of parental involvement
	Subtheme 2) Parental avoidance of collaboration
	Subtheme 3) Professionals' involvement
	9. Ill-equipped staff to teach sexuality education
	Subtheme 1) Inadequate training specific to teaching sexuality
	Subtheme 2) Lack of self-efficacy
	Subtheme 3) Need for training specific to sexuality education for neurodivergent students
	Subtheme 4) Training specific to LGBTQ+ sexuality
Phase 5:	Theme 1. Inadequacy of school-based sexuality education

I went back to the developed themes multiple times, as	Subthemes
well as going back to the dataset in order to create a	<ul> <li>Essential topics specific to neurodivergent students</li> </ul>
logical and salient story based on the participants'	• Existing approaches to teaching sexuality education
narratives. In general, I was satisfied with the themes I	
developed as they highlighted the most salient aspects	Theme 2. Current sexuality education is failing neurodivergent young people in relation to their romantic
of the dataset. However, I was still trying to ensure that each theme portrays its meaning in the best possible	relationships
way, as well as I was trying to create more exclusive	Subthemes
themes. Eventually, I developed	• Educators' views on neurodivergent students' attitudes to discussing sexuality and relationships with
themes. Eventuarry, rueveloped	teachers
	Theme 3: Sex education needs improving
	Theme 4. Ill-equipped staff to teach sexuality education
	Subthemes
	• Need for training for staff
	Theme 5. Collaborative efforts
	Subthemes
	• Importance of parental involvement
	<ul> <li>Professionals' involvement</li> </ul>

# Caregivers

Phase 1: Familiarisation: notes extract.	I have been struggling with the recruitment of caregivers. From my interviews with YP, I have learnt that
	parents do not really speak about sexuality with their children. This might be the cause why they do not appear
This phase was very similar to the first phase of the	to show much interest in the study. For now, I have conducted only a few interviews with caregivers, and I
analysis in the previous groups.	noticed that some of them had hardly anything to say about the topic (e.g., P4). I was under the impression that
	they honestly did not know almost anything about their child's sex education (they all thought it was important

I listened to the SSIs' recordings multiple times, and I also read the transcripts. I paid attention to what the caregivers' narratives were trying to portray in terms of sexuality education and romantic relationships for their children. I was also making notes of the most salient aspects that came from the dataset. I reflected upon the notes I had made for some time in the following days. I tried to understand what information was the most characteristic in the data that caregivers wanted to share, and what that information meant for them. I also started noticing similarities between some of the information that the caregivers shared during the SSIs and the previous literature I read on the topic. I made some notes regarding those aspects.	that their child receives sex education, though). It's interesting to note that some parents showed an interest in participating in the interview, and they contacted me about it, however, in the end, they failed to arrange the interview. One mother of an autistic child kept postponing the arranged interview, and eventually, she emailed me saying that she decided against taking part in the study as she did not feel comfortable discussing her child's sex education. That made me think that perhaps some caregivers/parents, although they might find the study interesting and important, might simply feel uncomfortable speaking about their children's sex education or perhaps they feel they might have nothing (or not enough) to say about it to take part in the study. Another interesting point I have noticed is (when I shared with some of the YP seemed enthusiastic about it and they quickly recommend me their parents as potential participants in the study (one young person who took part in the study, told me that their mum does not know anything about their sexuality education and hence was not interested in the research). I was happy to hear it and I asked them to speak about it to their parents and if they were interested, they might contact me (I gave them the PIS for parents). Unfortunately, I did not hear from the parents of those young people at all. I had an opportunity to speak to one of those YP after some time, they asked me whether their mum got in touch with me with regards to the study; I said no; they seemed baffled and said that their mum seemed interested in the study when they spoke to her about it. They said they were going to remind her about it, and they seent her a text while still talking to me. I have still not heard from that mother.
Phase 2: Coding: pictures of the codes developing in NVivo.	
Before starting to create codes, I familiarised myself with the dataset very well. I created many codes, most of them were at a semantic level and quite detailed, and some were at a latent level. Once I finished coding, I clustered them into groups of specific concepts. I used NVivo to create the codes and once I finished, I exported the codes into an excel sheet. I then used colour-coding to gather the codes under various topic concepts.	

1 2 3	Α	B C	D
	parents think that school teaches children important topics during sex ed	1	2
	parent has no idea what their child learns in school in terms of their sex ed	1	2
-	insufficient sex ed at school	2	7
	inadequate support for young people	1	2
	importance of signposting children	1	1
	Importance of sex ed	5	11
	importance of normalising LGBT sexuality	1	2
	children's communication isses may impact his sex ed	1	2
	benefits of earlier start of sex ed	1	3
-	teacher complained that the child ask questions during sex ed	1	2
	teachers may lack understanding about autism	1	1
-	parental lack of knowledge about sex ed	1	1
	professional support fails young people	1	2
	professional support	2	4
	involvemnet of people with experiences in teaching sex ed	1	2
	involvement of professionals in sex ed	5	9
	involvement of personalities in sex ed that children look up to	2	6
	family members as sex ed	1	1

	1 2 3		٨	В	С	D			
	+	51	parents are open to discuss sex ed with a child	<u>Р</u>	C	11			
			parent-child discussions related to sex ed and romantic relationships	4		22			
			parent doesn't discuss sex ed with autistic child not to embarrass him	1		2			
			learning from observing parents	3		8			
			importance of not feeling pressured	2		3			
			importance of humour in sex ed	2		4			
			example of supportive parent-child sexuality communication	1		1			
			discussions with siblings	2		2			
	-		dad-child communication on sex and relationships	6		12			
	T .	61	dad should talk to sons and mums to daughters about sex ed to make it less embarrassing	1		1			
	L	62	children's embarrassement about sex ed	6		9			
		63	children-parents - lack of communication about sexuality and relationships	2		7			
		64	childerns lack of openes to discuss sex with parents	1		1			
		65	child is not open to his parents	3		3			
		66	mother may have a better contact with a daughter than a father	1		2			
		67	parental lack of awareness that son learnt about sexuality from the net	1		1			
		68	parental lack of awareness son was intrested in sex and relationships	1		2			
		69	importance of a good communication between a child and a parent	1		1			
Phase 3: Searching for themes. I identified 20 tentative themes based on the topic	1	N		2					
clusters I grouped in the coding phase. These initial			ntransparent pedagogy of school-based sexuality education education should start early						
themes captured the most distinguishing features in the		<ol> <li>Sex education should start early</li> <li>Pornography an alternative avenue of gaining sexuality knowledge</li> </ol>							
whole dataset.									
		4. Ways of making sexuality education more effective							
			ng technology in teaching sexuality						
			ents want to be involved in their children's sexuality education						
			chers should have knowledge about neurodiversity						
		8. Incorporation of external educators in children's sexuality education							
	9. A willingness to discuss sexuality with children may not suffice								
	10. Sex education should be tailored								
		11. Ways of facilitating sexuality-related discussions							
	12.	Ma	king discussion funny						

	<ol> <li>Not pressuring discussions</li> <li>Children feel embarrassed</li> <li>Mothers main sexuality educators at home</li> <li>Parents want support on how to discuss sexuality with their children</li> <li>Abuse</li> <li>Parents are aware of their children's desire for romantic relationships</li> <li>Parental concerns related to their children's romantic relationships</li> <li>Children might be naïve</li> </ol>
Phase 4: Reviewing themes: I started reviewing the initial themes; I looked for concepts that could be merged together to create an overarching story. I was using colour-coding to help illustrate which themes could be clustered together (see above section). As a result, I have developed 10 themes.	<ol> <li>Nontransparent pedagogy of school-based sexuality education</li> <li>Pornography an alternative avenue of gaining sexuality knowledge</li> <li>Ways of making sexuality education more effective         Subtheme 1) Early start of sexuality education         Subtheme 2) Topics that parents suggest as essential to be taught during sex education         Subtheme 3) Applying technology in teaching sexuality         Subtheme 4) Importance of tailoring sexuality education         Subtheme 5) Children need signposting         Subtheme 6) Teachers need to have knowledge related to neurodiversity         Parents want to be involved in their children's sexuality education         Subtheme 1) Parents feel open to discussing sexuality with their children         Subtheme 2) Children feel embarrassed         Subtheme 3) Topics that parents discuss with their children         Subtheme 3) Topics that parents discuss with their children         Subtheme 4) Mothers' versus fathers' responsibilities in terms of sexuality education         Subtheme 1) Not pressuring         Subtheme 2) Introducing humour into conversations         Subtheme 2) Introducing humour into conversations         Subtheme 2) Introducing humour into conversations         Subtheme 1) Children long for romantic relationships         Subtheme 2) Children long for romantic relationships         Subtheme 1) Children long for romantic relationships         Subtheme 3) Children long for romantic relationships         Subtheme 4) Children long for romantic relationsh</li></ol>

	<ul> <li>Subtheme 2) Uniqueness of neurodivergent people expressing feelings</li> <li><b>10. Parental concerns related to their children's romantic relationships</b></li> <li>Subtheme 1) Abuse in romantic relationships</li> <li>Subtheme 2) Naivety in romantic relationships</li> </ul>
Phase 5: I went back to the developed themes multiple times, as well as going back to the dataset in order to create a logical and salient story based on the participants' narratives. In general, I was satisfied with the themes, but I also felt like some of them were inclusive and I could merge them into more exclusive themes. Consequently, I developed four themes.	<ul> <li>Theme 1: Nontransparent pedagogy of school-based sexuality education</li> <li>Subthemes <ul> <li>Parents want to be involved in their children's sexuality education</li> <li>Ways of providing more effective sex education</li> </ul> </li> <li>Theme 2: Parental role in their children's sexuality education</li> <li>Subthemes <ul> <li>Parents want support on how to discuss sexuality with their children</li> </ul> </li> <li>Theme 3: Incorporation of external educators in children's sexuality education</li> <li>Theme 4: Parents are aware of their children's desire for romantic relationships</li> <li>Subthemes <ul> <li>Parental concerns related to their children's romantic relationships</li> </ul> </li> </ul>

## Appendix 12: Example of A Short Demographics Form for Study 3 (Interviews)

Demographics form for young people:

1. Your age (in years and months, e.g., 15 years and 3 months): \_\_\_\_\_\_

2. Your gender:

Male

Female

Other: \_\_\_\_\_

3. Your ethnicity:

White

- English / Welsh / Scottish / Northern Irish / British
- Irish
- Gypsy or Irish Traveller
- Any other White background

Mixed / Multiple ethnic groups

- White and Black Caribbean
- White and Black African
- White and Asian
- Any other Mixed / Multiple ethnic background

Asian / Asian British

- Indian
- Pakistani
- Bangladeshi
- Chinese
- Any other Asian background

Black / African / Caribbean / Black British

- African
- Caribbean
- Any other Black / African / Caribbean background

Other ethnic groups

- Arab
- Any other ethnic group

4. Have you been diagnosed with any of the following conditions? (tick one or more)

Autism Spectrum Disorder (this may include, Asperger's Disorder, Childhood Disintegrative

Disorder, and Pervasive Developmental Disorder Not Otherwise Specified) (ASD)

Attention-Deficit/Hyperactivity Disorder (ADHD)

ASD co-occurring with ADHD

No, I am a neurotypical (TD) young person (I do not have any suspected or diagnosed neurodevelopmental condition)

5. If you were diagnosed with (a) neurodevelopmental condition(s); How old were you when you were first diagnosed with this condition/these conditions?

Autism spectrum disorder: \_\_\_\_\_ years \_\_\_\_\_ months

Attention-Deficit/Hyperactivity Disorder: \_\_\_\_\_ years \_\_\_\_\_ months

6. What is the highest level of education you have completed (e.g., Year 10, GCSEs)?

7. What type of school/college do you attend currently/ have you attended most recently?

Mainstream school/college

Mainstream school/college and, also, they have/had help from teaching support staff for students with neurodevelopmental conditions such as autism and attention-deficit/hyperactivity disorder

1 71

Special needs school/college (non-residential)

Special needs boarding school/college, residential special school/college

Other: \_\_\_\_\_

I'd prefer not to say