THE BEST LAID PLANS: PROCESS EVALUATION OF A PREVENTATIVE STRESS-MANAGEMENT STRATEGY IN THE PUBLIC SECTOR

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ABSTRACT

The costs of poor psychological health to employees and organisations continue to mount, with the psychosocial work environment implicated as a causal factor. Despite this, organisational-level interventions aiming to address these working conditions have been under-represented in the literature and, where evident, provide inconsistent findings. Much of this inconsistency has been attributed to the complexity of such interventions and the many contextual and process-related factors that can affect their implementation and outcomes. Consequently, there is a growing recognition that research needs to consider this within research designs, which has previously been lacking, in order to learn from and improve interventions (Biron, Karanika-Murray, & Cooper, 2012). This study incorporated process evaluation, using Nielsen and Abildgaard's (2013) framework, to assess the effects of an organisation-wide project to address psychosocial stress-risks in a large UK public sector organisation (N = 4,675) against a backdrop of austerity-related budget cuts.

The project followed a stepwise process beginning with a baseline stress-risk assessment survey (n = 1,425) to identify the main psychosocial stress-risk factors (work demands, change & how it was managed, and manager support) and inform the development and implementation of interventions. This led the organisation to the develop interventions targeting communication, support, and recognition. A follow-up survey was conducted 14-months later (n = 1,008). Repeated measures ANOVA's of employees who completed surveys at both time-points (n = 552) showed that employees' exposure to and perceptions of interventions were significantly associated with changes in psychosocial conditions targeted by them. Process evaluation also highlighted the crucial role played by the challenging context, which affected the time and resources available to the project, and its coordination. This thesis heeds calls for more consideration of process and context in intervention research, as well as supporting its value in terms of interpreting findings and drawing important lessons that can be used to improve future efforts.

CHAPTER ONE: THESIS INTRODUCTION

"The best laid schemes o' mice and men go oft awry" – Robert Burns

Introduction

Work has been highlighted as the largest stressor in peoples' lives (Mazzola, Schonfeld, & Spector, 2011), yet although the view that prevention is better than cure has an intuitive logic, there is a surprisingly small work-related evidence-base upon which to form conclusions. Furthermore, until relatively recently, little attention had been given to understanding why many well-intentioned and carefully planned initiatives do not appear to work as intended (Biron, Karanika-Murray, & Cooper, 2012a; Murta, Sanderson, & Oldenburg, 2007; Nielsen & Randall, 2013).   Due to their complexity, the question of whether or not an organisation-level intervention has 'worked' (i.e. did it reduce stressors, or improve psychological health) is of limited value by itself; understanding how and why (or why not) is of equal or even greater value in learning lessons that can inform future work (Karanika-Murray & Biron, 2015).   Therefore 'process evaluation' should be an integral part of research into organisational stress-management or related interventions (Montano, Hoven, & Siegrist, 2014), and is central to the present study. There are huge costs to failing to address 'stress' and employee well-being at work, so questions such as these are of great importance.

Work-related stress can have real health costs for employees, and financial ones for employers and estimates suggest that around one-third of workers experience chronic work stress (Dewa,

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Lin, Kooehoorn, & Goldner, 2007) and common mental health problems may be responsible for up to half of all long-term absences from work (Lelliott et al., 2008). Yet, despite the scale of the problem there remains a lack of understanding of how this might be most effectively tackled. Primary/organisation-level approaches to stress-management – a main focus of the present study – attempt a preventative approach, addressing problems stemming from the psychosocial environment. Defined by the European Agency for Safety and Health at Work as: -

- "*Aspects of the workplace and social contexts, which have the potential for causing psychological, social and physical harm.*" (European Agency for Safety and Health at Work; van Stolk, Staetsky, Hassan, & Kim, 2012, p. 11)

Given the human and financial costs associated with poor psychological health at work, addressing the issue has been identified as a priority (e.g. Black, 2008; Health and Safety Executive, 2000). The Health & Safety Executive (HSE; www.hse.gov.uk/stress) define work stress as '*the adverse reaction people have to excessive pressures or other types of demand placed on them at work*' and, according to interactive models of stress, reducing stressors should reduce the longer-term effects on physical and psychological health. A wealth of literature has covered the topic, yet despite the assertion that preventative stress management interventions should be prioritised, the evidence-base is limited (Richardson & Rothstein, 2008). Calls made in 2001 for further research (van der Klink, Blonk, Schene, & van Dijk, 2001) are still echoed a decade later (e.g. Bhui, Dinos, Stansfeld, & White, 2012; Cooper, 2012; Richardson & Rothstein, 2008; van Wyk & Pillay-Van Wyk, 2010).

Furthermore, where research has been conducted, it has tended to focus solely on outcomes without considering the effect of the process itself (Biron, Karanika-Murray, & Cooper, 2012b). In other words, there is a lack of attention to how factors such as context as well as the 'reach' and perceived quality of interventions might affect outcomes. These process-related factors have begun to receive more attention, shedding light on why theoretically sound interventions may not always have their intended effects (e.g. Aust, Rugulies, Finken, & Jensen, 2010). Given the complexity of organisations, there are numerous challenges when planning and implementing preventative interventions, so this type of detail is much needed and can be highly informative for researchers and practitioners alike (LaMontagne, Keegel, Louie, Ostry, & Landsbergis, 2007; Martin, Sanderson, Cocker, & Brough, 2009; Montano et al., 2014; Olsen et al., 2008).

Thesis aims and structure

The present study therefore aims to contribute to the literature by adding to the evidence base regarding preventative stress-management interventions, using evidence-based principles promoted by the National Institute for Health and Care Excellence (NICE; 2009a), the HSE, and numerous scholars (e.g. Kompier, Geurts, Gründemann, Vink, & Smulders, 1998). The research takes place in a large UK public-sector organisation (PublicOrg), at a particularly turbulent period, with the ongoing effects of austerity measures. The thesis is based on the implementation of a new organisational-level intervention strategy implemented by PublicOrg, intended to improve psychosocial conditions for employees. However, in line with the process evaluation literature, the research aims to do more than just answer whether or not it 'worked' – it intends to identify and evaluate the role of process and contextual factors

throughout the project. The intervention process here follows a five-stage framework outlined by Kompier et al. (1998), where an initial preparation stage is followed by a baseline stress-risk assessment to identify the priority issues in the organisation. The findings from this assessment are then used to inform the development and implementation of appropriate intervention(s), with the final stage being evaluation. The research design follows this process, with the baseline and follow-up assessments providing the data for analysis of changes between pre- and post-intervention, and potential intervention effects.

The literature review (chapter two) opens with a discussion of stress and well-being: what it is and how it is conceptualised in the present research, why it matters to individuals, and why it should also matter to employers. This is followed by consideration of some of the key work-related psychosocial stressors that organisations may potentially target, before reviewing the literature regarding preventative stress-management approaches that aim to reduce or remove these stressors. This evidence is not clear-cut, but a number of factors have been associated with successful preventative stress-management interventions and these are expanded upon; for example, the need to ensure interventions are tailored to the needs of that organisational setting, rather than applying generic 'off-the-peg' approaches. Furthermore, there are a number of practical and methodological factors that can shed light on the current state of the evidence, and these too are highlighted in this chapter as key reasons for the apparent 'failure' of some preventative stress-management interventions. The present study acknowledges some of these issues in its study design (methodology, chapter three), and employs a recently developed process evaluation framework from Nielsen and Abildgaard (2013) to guide its evaluation. Their framework breaks the intervention process down into phases, aligned with

Kompier at al's (1998) stepwise approach, and forms the structure for the chapters following the methodology.

The fourth chapter describes the background and preparation for the intervention project, with the following chapter discussing the findings from the baseline stress-risk assessment, used by PublicOrg in the subsequent chapter (chapter six) to plan and implement appropriate interventions. Chapter seven describes the 'effect evaluation', which assesses if and where interventions had their effects on employees' perceptions of the psychosocial environment; this also analyses whether effects can be linked to interventions implementation. The eighth and final chapter, the discussion, begins by summarising and discussing the process and evaluating the role of each phase and the factors involved in the project's efficacy. The second half of the chapter then considers the role of methodological factors and lessons for future research and practice.

Knowledge of exactly how process and context affects interventions, and which factors are most important is still developing (Nielsen & Abildgaard, 2013), but the evidence is already clear that they play an important and frequently unacknowledged part in the success of organisational level stress-management interventions (Biron et al., 2012a; Karanika-Murray & Biron, 2015). Therefore, this study contributes in a number of important ways. At the most basic level, it simply answers the many and recurring calls for preventative organisational-intervention research to add to a small evidence-base. However, it goes beyond that in evaluating not only the outcomes, but also how context and process contributed to them, in an effort to contribute to this emerging field. For practitioners and employers, the research also aims to add value by utilising freely available resources such as the HSE's Management

Standards Indicator (MSI) – a survey-based tool developed by the HSE specifically to assist employers with the identification of organisational-level psychosocial stress-risk factors in the workplace. It is recognised that organisations may not be able to afford consultants or diagnostic instruments, so this is intended to make it easier for practitioners to access much of the information that has guided the process.

Objectives

- o Identify key process and context-related factors (literature review)
- o Apply a recently developed intervention process evaluation framework to evaluate the efficacy of each phase of the process, and the role of factors that affected them.
- o To use the HSE's Management Standards Indicator to guide the baseline stress-risk assessment
- o Document the activity and events surrounding the intervention process
- o Evaluate the effects of intervention(s), particularly in relation to employees' reported intervention exposure and perceptions
- o Evaluate how process and context affected the intervention project

CHAPTER TWO: LITERATURE REVIEW

Introduction

The scale of work-related 'stress' and mental health problems have been increasingly recognised in recent years, as has the role of employers in addressing it (e.g. Black, 2008; NICE, 2009) . Many employers may care about work-related stress because it is 'the right thing to do', while others may take more note of the financial impact. For example, NICE (2009) calculate the potential cost savings of addressing the psychological health of employees of £250,607 per 1,000 staff, while figures from the UK Health and Safety Executive, based on the Labour Force Surveys for 2010/11 and 2015/16, have suggested mounting costs of work-related stress, depression, and anxiety alone of £3.6 billion and £5.2 billion, respectively. Such huge sums can be hard to comprehend and it is the human costs that many people will appreciate. Work can be good for psychological well-being but 'poor' psychosocial conditions (e.g. excessive workloads, constant change, or unsupportive management) have well-established links to chronic stress and the development of distressing mental and physical health problems (Alarcon, 2011; Kamarck, Shiffman, Sutton-Tyrrell, Muldoon, & Tepper, 2012; Kashani, Eliasson, & Vernalis, 2012).

Despite the intuitive logic of prevention being better than cure, Briner and Reynolds (1999) highlight discrepancies between the expected benefits of preventative approaches to stress-management interventions and their health and well-being related outcomes. This is at odds with guidance and policy; the Hierarchy of Controls principle, proposed by the Health and Safety Executive (HSE; 2001) prescribes the order in which actions to address stressors in the

workplace should be prioritised (Briner, Amati, & Lardner, 2003), and the top priority from a risk management perspective, should be prevention (Taris et al., 2003). Lamontagne et al (2007) assert that the further upstream the intervention, the more effectively it will prevent exposure and consequent strain-related problems; Dollard and Karasek (2010) therefore suggest that this should have the greatest impact on employee well-being. Of course, being further upstream also means changes may take time to manifest themselves, but the first step is to improve the psychosocial environment. This was the aim of the UK public sector organisation that forms the setting for the present study.

As this research is concerned with preventative approaches to stress-management, it is important to understand what they might be attempting to prevent (or reduce). However, considering 'stress' is such a widely used term there is a lot of ambiguity about what it actually means (Kinman & Jones, 2005). There has also been increasing debate about the nature of well-being, the benefits of focusing on its positive facets, as well as the pitfalls of addressing only deficits in psychological health (British Psychological Society, 2009; Vallerand, 2012). Therefore, prior to discussing the evidence for preventative approaches to stress-management, the first part of the chapter considers definitions and conceptual issues, before discussing the impact of poor psychological health, and concludes by introducing some of the most influential stress-related psychosocial factors in the workplace.

The second part of the chapter evaluates the current evidence regarding preventative/organisational approaches to improving the psychosocial environment. It begins by discussing the rationale for prioritising prevention, followed by an overview of recent research, considering the aggregated findings from meta-analyses and systematic reviews.

However, going beyond these headline findings, the chapter continues by identifying a number of factors associated with positive intervention outcomes. These 'success factors' – drawn from the literature – are then explored and illustrated by primary research. Crucially, several methodological and practical issues are also identified that could conceivably account for the inconsistency in research findings regarding preventative methods. Many of these success factors/barriers and methodological concerns provide the platform for the present study, and emphasise the importance of process evaluation: that is, the need to go beyond the exclusive focus on outcomes, to understand *why* interventions work or not and under which circumstances, in order to improve them (Nielsen & Randall, 2013). As noted by Cox, Taris, and Nielsen (2010; cited in Biron & Karanika-Murray, 2014) "*at present little real progress is being made in intervention research […] we do not need 'more of the same'*" (p. 86). By considering the context and process of the present intervention project, this thesis aims to shed light on the role played by some of these factors in relation to intervention outcomes. The chapter concludes by summarising the evidence, as well as how this fits into a process evaluation framework proposed by Nielsen and Abildgaard (2013), used by this thesis to guide the structure of the research itself.

Before considering 'stress' and well-being/psychological health, it is relevant to consider how they are conceptualised, as it has implications for how these are viewed, and addressed. This has been raised as an issue and researchers such as Pollard and Lee (2003) affirm that psychological well-being is a multi-faceted construct, one that has proved difficult to satisfactorily define or measure. Meanwhile, the term 'stress' is beset by similar issues (Biron et al., 2012a; Cooper, Dewe, & O'Driscoll, 2001); this conceptual ambiguity and lack of clear

and accepted definitions are unhelpful (Baxter, Herman, Pickvance, Goyder, & Chilcott, 2009), while Cummins (2009) raises it as a genuine challenge to research in the field. While it is beyond the scope of the present research to cover this debate in detail (cf. Diener, Oishi, & Lucas, 2002; Dodge, Daly, Huyton, & Sanders, 2012) it does need to be recognised in order to situate the present study within the literature. More specifically: the *stress-management* literature, an orientation that prioritises the prevention of negative states, and the first part of this chapter will discuss the rationale.

Conceptualising well-being

There has been a growing recognition that psychological well-being is not characterised by the mere absence of negative states, but also by the presence of positive ones. This goes beyond the traditional stress-management approach, which focuses on preventing 'harm' (Cox, Griffiths, & Houdmont, 2006). Vallerand (2012) argues that well-being is often overlooked and has been misunderstood as merely the absence of ill-being, although this is changing to an extent, with a more rounded conceptualisation being explicitly incorporated into several influential policy level reports in recent years (e.g. Black, 2008; Foresight Mental Capital and Wellbeing Project, 2008).

This view reframes the issue from being purely preventive, to being one of 'promotion' (of positive states) and this more positive viewpoint can also be seen in relation to the work environment itself; Leka, Griffiths, and Cox (2004) affirm that healthy working environments are not only characterised by the lack of harmful conditions, but also the existence of health-promoting ones (p.4). It is a perspective that has become increasingly established, and extended to highlight the workplace as a viable arena for the promotion of positive health (e.g.

Black, 2008; Foresight Mental Capital and Wellbeing Project, 2008; National Institute for Health and Care Excellence, 2009a).

However, while the definitions used in many of these influential reports increasingly take up this rounded conceptualisation, there seems to be a discrepancy between the definition provided and the recommendations therein. For example, Leka and colleagues' (2004) guidance for addressing 'stress' in the workplace for the World Health Organisation (WHO), employ the latter's definition of well-being, yet the perspective taken with the guidance itself is based on the 'risk management' approach; in other words, preventing negative states. This is arguably also true of NICE (2009) guidance, where the language used to rationalise and introduce their recommendations is derived from the well-being – as opposed to stress – literature (i.e. it quotes the WHO definition). Yet, the content of the guidance stems very much from the field of stress and risk management, for example NICE document (PH22) advises that the intention is to promote well-being, but also acknowledges "*the guidance is particularly aimed at reducing work-related stress, depression and anxiety*" (NICE, 2009b, p. 26).

Defining stress and rationale for focus on stress-management

Having criticised such inconsistencies, it is appropriate to be clear that the principal focus here is on the risk-management approach, although this is not to dismiss the potential benefits of approaches that aim to promote positive states. However, there are a number of reasons for taking this perspective here. Firstly, the present thesis is guided to an extent by recommendations from research, and guidance such as those proposed by the WHO (i.e. Leka et al., 2004), and NICE (2009); so it makes sense to follow the tenor of their

recommendations, rather than following their chosen definition of well-being, which does not appear to be integrated within them to any great extent. Secondly, although one of the main criticisms of the risk-management approach is its exclusive focus on negative aspects (Biron et al., 2012b), Biron and colleagues assert that both perspectives still share the goal of helping organisations to support and develop the psychological and physical health of their employees. It could still be argued, however, that by seeking to address only those negative aspects of work, risk management approaches miss out on opportunities to improve well-being beyond a level that might be expected by merely minimising potential harms. However, Semmer (2006) proposes that as a starting point, it is natural that, at the very least, the work environment should not be a source of undue 'stress'. Perhaps surprisingly (considering the WHO definition of well-being highlighted previously), this strategy is also supported by the WHO (2002) themselves. They recommend that occupational health problems, which include mental health-related issues, are best dealt with using a risk management approach (Cox, Leka, Ivanov, & Kortum, 2004).

The final reason for taking the risk management approach here is contextual; the research takes place in a large UK public sector organisation. Given the recession preceding this research, and ongoing austerity measures affecting UK local authorities during the course of it, the well-being of public sector employees appears to be particularly vulnerable (e.g. Houdmont, Kerr, & Addley, 2012). A backdrop of financial cuts and job losses is likely to mean greater job insecurity, as well as increased workloads from the need to maintain services with fewer staff (Kivimäki, Vahtera, Pentti, & Ferrie, 2000); both of which have been associated with poorer psychological well-being (e.g. De Witte, 1999; De Witte et al., 2010;

Nieuwenhuijsen, Bruinvels, & Frings-Dresen, 2010; Ravalier, Mcvicar, & Munn-Giddings, 2013). Therefore, given the additional demands exacted by this environment, it makes sense to ensure that harm is minimised in the first instance.

Having discussed the rationale for focusing on stress-management, the word 'stress' itself needs clarification; in everyday parlance, statements such as '*I'm stressed*' or '*I've had such a stressful day*' are commonplace, and the negative connotations are implicit. But it is often unclear what is meant when people talk about stress. For example, is it being used to refer to a state, an outcome, or even a source of stress (Cooper et al., 2001)? Kinman and Jones (2005) found this to be highly variable among laypeople, with its meaning multifaceted and subject to numerous contextual factors. Academics too have struggled with this ambiguity, and usage of the term criticised in the literature for being used as a cover-all for a multitude of related – but different – factors; for example, stress has been used to refer to the environmental impediments to employee well-being, the individual employee response to these environmental factors, or their subsequent impact (Beehr & Newman, 1978; Cooper et al., 2001; Jex, Beehr, & Roberts, 1992; Selye, 1974).

The process whereby stressors ultimately make their mark on individuals has also been modelled in different ways. 'Stress-as-response' (Selye, 1956) or 'stress-as-stimulus' (Masuda & Holmes, 1967) models take a relatively simplistic approach; stress-as-stimulus models suggest that some events are inherently stressful and provoke a response, while stress-as-response models describe stress as the non-specific response to a 'noxious' stimuli (Lyon, 2012). However, more comprehensive models incorporate these elements, acknowledging them as part of a more complex process.

More contemporary work-related definitions favour the 'stress as process' model, where stress is described as an overarching process linking exposure to work-related problems with their negative impact (e.g. Cooper et al., 2001). Structural models propose that there are certain features of the work environment that may be inherently 'stressful', but also attempt to describe the interaction between the features of the work environment (i.e. the potential stressors, and the resources that may buffer against them), and their impact on psychological well-being. Structural models have been criticised for their limited consideration of individual differences and the emphasis on environmental factors, which do not explain why people may respond differently despite similar conditions (Cooper et al., 2001; Perrewé & Zellars, 1999). Transactional models go further, and are more comprehensive, recognising the individual difference factors between the stressor and strain that moderate their effects, acknowledging some of the complexities of individual appraisals, as well as how the outcome of the chosen response may also influence future experiences (Cox, 1993).

However, Cox, Griffiths, and Rial-González (2000) assert that it is the organisation, rather than individuals, that are the generator of risk and this is the focus of the present research. Guidance from NICE (2009) and the HSE's Management Standards (2007) focuses more closely on the stressors and their prevention, than how individuals cope with them. While this guidance does acknowledge individual differences, they are predominantly focused on prevention at the organisational level. This is explored further in the following chapter, but in terms of conceptualising 'stress', this thesis – following Biron et al. (2012b) – uses a framework of Cooper et al. (2001), where stressors, strains, and outcomes are defined and specified as separate, but linked, elements. This is especially important in intervention

research, where the use of the cover-all conception of 'stress' is unhelpful and makes it difficult to focus attention; particularly in preventative approaches to 'stress' management, where it is the causes – the stressors - that are being targeted. Hence, the term stress is used to refer to the process by which stressors from the work environment may, under certain circumstances, lead to strain: i.e. '*the individual's psychological, physical or behavioural responses to stressors*' (Cooper et al., 2001, p. 14).

Moreover, although physical conditions can act as stressors, this research concentrates on psychosocial conditions: risk factors linked with psychological processes resulting from the social environment (Stansfeld & Candy, 2006). The effects of psychosocial stressors have been highlighted as being longer lasting than physical stressors, linked with ongoing physiological activation, reducing ability to recover (Lundberg, 1999). The HSE identify seven key psychosocial stressors, discussed subsequently, such as job demands, control, and support from manager and colleagues.

In terms of outcomes, there are many terms used to describe the general state of someone's mental health; terms such as mental disorder or mental ill-health, to describe poor mental health, while psychological health and psychological well-being are more neutral and positively oriented descriptors, respectively; these and related terms are used, where appropriate, rather than repeating a single one. However, where a specific condition or diagnosis is mentioned, this will be made explicit.

So, to summarise; the present research acknowledges the importance of positive states and the need to consider these aspects of work but takes a predominantly a risk-assessment approach,

as per the HSE Management Standards, and NICE guidance. This also takes into account the wider economic context presently affecting the public sector, alongside the need to address the most pressing and potentially harmful issues first; furthermore, it has also been noted that positive psychology-based interventions tend to be individually, rather than organisationally, focused (e.g. Meyers et al, 2013). This does not mean they may not be of value, and it also represents a large gap in the research for positively oriented organisational-level interventions but is a further reason for the approach taken in this thesis.

Furthermore, stressors and stress, in and of themselves, do not automatically lead to negative stress-related outcomes for individuals (Hargrove, Quick, Nelson, & Quick, 2011); indeed, it can be positive (i.e. eustress) and at least some level of 'stress' (i.e. activation) is necessary to an extent (Yerkes & Dodson, 1908). However, what is being discussed here is generally related to excessive and/or prolonged exposure to stressors.

Psychological health and work

Having earlier signalled the present thesis' focus on stress-management, and therefore addressing deficits, it is important to consider the scale of these negative states. Cross-sectional research has suggested approximately one-in-four people experience mental health problems in any one year (Wittchen & Jacobi, 2005), while prospective longitudinal research from Moffitt et al. (2010) indicates lifetime incidence of depression and anxiety may be as much as one-in-two.

If, as the World Health Organisation assert, "*there is no health without mental health*" (World Health Organisation, 2014), the implications of the aforementioned prevalence of mental

health problems in the general population are given added weight when considering their links to physical health (Royal College of Physicians (RCP), 2010). There are well-established associations, for example, between mental health problems and musculoskeletal complaints (e.g. Larson, Clark, & Eaton, 2004), meanwhile, depression – one of the most commonly reported mental disorders (Wittchen & Jacobi, 2005) – is associated with increased mortality rates from cardiovascular and respiratory diseases (Mykletun et al., 2007); depression being implicated in almost doubling the risk of developing coronary heart disease (Mykletun et al., 2009).

While the primary focus of this research regards the contribution of work and the psychosocial environment to psychological health, and how this might be addressed, it should be recognised that the relationship between work and mental health is a complex and reciprocal one. This is important for a number of reasons; firstly, stress and mental health problems are not only caused by work - people who have mental health problems are less likely than the general population to be in work in the first place (Rinaldi, Montibeller, & Perkins, 2011). There is a vast amount of research – spanning many disciplines – that has attempted to untangle the causal factors in the development of mental health problems; there is no doubt these are multifaceted and interactions between genetic, health and socioeconomic factors, among others, are complex. It is beyond the scope of the present research to cover this, but regardless of the source of a mental health problem, the impact on the individual and the employer can be severe.

'Costs' of psychological ill-health to employers and employees

Attempts to calculate the financial impact of mental health-related issues at work have suggested the overall costs to employers are huge, with estimates placed at approximately £1,035 per employee across the entire UK workforce (Centre for Mental Health, 2007), or £250,607 per 1,000 employees (NICE, 2009). Mental health may affect employers in a number of ways: e.g. sickness absence, turnover, and performance, and this is underlined by the UK government's evaluation of the 'fit note', introduced in 2010, which found that over one-third of these were being issued in relation to mild-to-moderate mental health disorders (Shiels, Hillage, Pollard, & Gabbay, 2013). Similarly, the 2015/16 Labour Force Survey, reported by the Health and Safety Executive (2016), found that 'stress' alone accounted for 45% of days lost to sickness absence. Further credence to these figures is provided by Dewa et al. (2007), whose study of over 22,000 workers found that one-third experienced chronic work-related stress, while common mental health problems have been shown to account for around half of all long-term sickness absence (Lelliott et al., 2008). The HSE (2016) further report that stress, depression, and anxiety were responsible, annually, for approximately 11.7 million days lost to sickness absence in 2015/2016, with the Office for National Statistics (2014) reporting an increase of 24% in the number of working days lost to stress, depression and anxiety, between 2009 and 2014. Lerner and Henke (2008) found those with depression had higher rates of sickness absence, in addition to greater turnover levels; indeed, the Audit Commission (2002) found that 'stress' was reported as the number one reason for employees leaving the public sector. The focus of Lerner and Henke's review was on the impact of depression on work-related factors – rather than vice-versa – but viewed in conjunction with longitudinal research assessing the causal role of work in the development of mental health

problems (e.g. Hakanen, Schaufeli, & Ahola, 2008), it does highlight its impact on a number of key work outcomes.

Donald et al. (2005) found employee productivity was significantly related to their psychological well-being, while Edwards, Guppy, and Cockerton's (2007) longitudinal study reported a similar negative relationship with work performance between the two measurement points, supporting a causal relationship betwen psychological health and performance. Meanwhile, in relation to the psychosocial environment, Gilboa, Shirom, Fried, and Cooper's (2008) meta-analysis of work stressors and employee performance research showed consistent negative relationships between a range of work-related stressors and performance-related outcomes. If the moral reasons for addressing stressors and supporting employees' psychological health are insufficient for some employers, such findings may be particularly salient. This thesis focuses on employee-related outcomes, but this is naturally an important motivator for employers, and a key part of the business case for addressing stress-related factors in the workplace according to both NICE (2009) and the Centre for Mental Health (2007).

Stressors and links to psychological health

There is ample physiological evidence for the physiological impact of long-term exposure to stressors. The stress response – a mechanism that can be adaptive in the short-term – can become chronic with continued exposure, and harmful in the long-term. Long-term exposure to stressors has been associated with the development of subsequent strains, such as burnout, and subsequent mental health problems (Chetty et al., 2014). Maslach and Jackson (1981) define burnout as '*a syndrome of emotional exhaustion'*, and a systematic review of the

burnout and cognitive functioning literature (Deligkaris, Panagopoulou, Montgomery, & Masoura, 2014) strongly indicates the detrimental effects of burnout on a range of cognitive processing tasks; particularly executive functioning, attentional and working memory systems. These effects have been found in relation to work-related stressors, and further linked to structural changes in the brain Savic (2013), which may predispose individuals to mental health problems (Chetty et al., 2014).

There are a wide range of factors implicated in some of the psychological health-related effects discussed so far, such as life events (Brugha, Bebbington, Tennant, & Hurry, 1985), physical health (Larsson, Karlsson, & Sullivan, 2002), family and socioeconomic status (Repetti, Taylor, & Seeman, 2002), and individual differences (Erdogan, Bauer, Truxillo, & Mansfield, 2012), among many others. For example, Alarcon, Eschleman, and Bowling (2009) found that personality-related factors were related to burnout, negative affect and emotional stability. Individual differences are important in determining how people respond to stressors, perhaps giving rise to the notion that it is a weakness on the part of those affected, or that they just need to 'pull themselves together' (Byrne, 2000). Nonetheless, although the role of factors, such as individual differences is recognised, they are beyond the scope of the present study.

Socioeconomic status has been introduced as a further factor (e.g. North, Syme, Feeney, Shipley, & Marmot, 1996), because lower 'status' roles are disproportionately likely to be characterised by certain psychosocial work characteristics negatively associated with psychological health, such as lower levels of control (Siegrist & Marmot, 2004). However, the influence of psychosocial factors are by no means restricted to jobs that might be

considered 'lower' status; university lecturers and academic staff (Kinman, Jones, & Kinman, 2006), social workers (Coffey, Dugdill, & Tattersall, 2009; Evans et al., 2006), and Members of Parliament (Weinberg, 2015) have all been highlighted as occupational groups with higher rates of psychological ill-health than the general population.

If work can act as a stressor, then so can the fear of not being in work - job insecurity has also been linked with adverse physical (Virtanen et al., 2013) and psychological health-related outcomes (Brenner et al., 2014). This is understandable as unemployment also brings financial concerns (Pittau, Zelli, & Gelman, 2010), similarly associated with poor psychological health (Paul & Moser, 2009). All of which, suggests that (secure) work is good for us. However, this is not straightforward and the psychological benefits of employment are not universal; while this assumption appears to hold where the psychosocial work environment is of 'good quality', 'poor quality' work is associated with equivalent levels of psychological health to being unemployed (Butterworth, Leach, McManus, & Stansfeld, 2013). A recent systematic review of psychological stress research across both occupational and general populations by Goodwin et al. (2013) found a markedly *higher* prevalence of common mental disorders in working populations (23.9% vs 19.2%), even after accounting for methodological issues. This goes against the view that work is positive (Paul & Batinic, 2010), and it may be that researchers have been drawn to occupational groups that are known to be particularly at risk; for example, research looking employees in domains previously shown to be associated with high levels of psychological ill-health such as healthcare, education, and social work were particularly well-represented in this review. Indeed, as there seem to be clear differences between some occupational groups (e.g. Johnson et al., 2005;

Kinman et al., 2006; Taylor, Brice, Buck, & Prentice-Lane, 2004), this provides evidence for the impact of certain features of the psychosocial work environment found in some sectors. Naturally, what constitutes 'good' and 'poor' work is complex, and this leads onto the next section: the psychosocial work environment and well-being.

Thus far, this section has discussed some of the conceptual issues related to stress and well-being, as well as some of the general causal factors and their impact. The following sections focus on the workplace; Smith, Johal, Wadsworth, Smith, and Peters (2000) indicate that approximately 20% of employees consider their jobs either very, or extremely, stressful. Notwithstanding the conceptual issues surrounding the use of words like 'stressful', there is evidence that employees' perceived stress does have validity as an indicator, and is associated with subsequent strain-related symptoms (Jacobson et al., 1996; Kashani, Eliasson, & Vernalis, 2012). But what is it about work that can cause such perceptions?

The psychosocial work environment

While each occupational setting will have its own particular psychosocial features, there are a number of common factors that have been highlighted by the HSE as being especially important psychosocial stressors. These are factors that have demonstrated consistent associations with employee mental and physical health problems (Backe, Seidler, Latza, Rossnagel, & Schumann, 2012; Corbiere, Shen, Rouleau, & Dewa, 2009) and the HSE Stress Management indicator (MSI) – a survey-based tool developed to help organisations identify problematic aspects – incorporates seven of these stress-risk factors (Cousins et al., 2004; Mackay, Cousins, Kelly, Lee, & McCaig, 2004). The MSI is a key measure in the present study, and therefore this section focuses primarily on the seven factors covered by it.

The HSE's selection of psychosocial stressors is based primarily on Karasek's (1979) Job Demands-Control (JDC) model (Cox, Karanika-Murray, Griffiths, Wong, & Hardy, 2009), and the later Job Demands-Control-Support model (DCS; Johnson & Hall, 1988). The former model asserts the impact of two key psychosocial work features: 'demands' and 'control'. Excessive demands act as a stressor, while control over the work process and environment is proposed to buffer against the adverse effects of stressors (van der Doef & Maes, 1999).

However, De Jonge and Kompier (1997) suggest stress-risk assessments need to go beyond assessing only these core components to enable appropriately specific conclusions about where any issues may lie. The Job Demands-Control-Support model extends this and proposes that support from colleagues and supervisors can buffer the impact of demands and lack of control (De Lange, Taris, Kompier, Houtman, & Bongers, 2003). The links between both of these psychosocial factors and psychological health-related outcomes have been well-supported in the literature (e.g. Alarcon, 2011; Carayon, 1993), but less so for the interaction component of the theory (De Lange et al., 2003; van der Doef & Maes, 1999). Consequently, Arnold and colleagues (2010) note that the process is more complex than these models hypothesise; however, there is strong evidence to support that the variables themselves are useful predictors of psychological outcomes, exerting independent effects (Luchman & Gonzalez-Morales, 2013) so these should be considered by any stress-risk assessment. The variables demands, control, and support, covered by the JDC and DCS reflect job content, but the MSI also addresses job *context* (Cox et al., 2009); namely, role [clarity], relationships, and change. Each of these job context factors have also been evidenced as potential stressors

(Hauge, Skogstad, & Einarsen, 2007; Loretto, Platt, & Popham, 2010), which may also be amenable to intervention (Michie & Williams, 2003).

Although the seven MSI factors are the main focus here, it is recognised that these are not the only work-related stressors, and there are also other models. It is beyond the scope of the present study to cover these in detail, but a particularly well-established alternative work stress model is Siegrist's (1996) Effort-Reward Imbalance (ERI); in fact, research has suggested it does explain additional variance over and above the DCS model that the HSE MSI is based on (Mark & Smith, 2012). However, a key feature of ERI is a personality characteristic (over-commitment) moderating the balance between 'effort' and 'reward' (van Vegchel, de Jonge, Bosma, & Schaufeli, 2005), whereas the present study is principally concerned with the psychosocial environment itself. Furthermore, as noted by Mark and Smith (2008), the HSE does cover some elements of ERI (effort) in the 'demands' subscale, while the ERI-reward aspect is also acknowledged to some degree by items relating to 'manager support'.

Although there has been criticism of using 'generic' stressors as they are not relevant across all roles, and therefore miss out on important contextual aspects of different work (e.g. Bakker & Demerouti, 2007), the seven factors considered by the MSI have well-established links to a range of health and psychological well-being-related outcomes. Being able to identify the key issues in a particular workplace is crucial and clearly has implications for developing subsequent interventions. This element is expanded upon later in the chapter, and is the reason the HSE developed the MSI: to support employers with stress-risk assessment (Cousins

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et al., 2004; Mackay et al., 2004). It is therefore surprising that little research has thus far assessed the MSI's utility for this purpose.

However, there is uncertainty regarding exactly how influential work can be on well-being. The variance of psychological well-being explained by work has been proposed to be as low as 7% (Zapf, Dormann, & Frese, 1996), although that figure was based on a simplistic and speculative calculation. This is at odds with DeFrank and Cooper (1987, p.4; citing Elliott & Eisdorfer, 1982) who suggested that '*organisations provide a major portion of the total amount of stress experienced by a person*'. Griffiths, Cox, Karanika, Khan, and Tomas (2006) found psychosocial work factors accounted for 37% of the variance in well-being and subjective health, which is in line with the overall literature that strongly indicates the influence of work on psychological health. Moreover, a review of qualitative research by Mazzola et al (2011) found that respondents asked to identify their main sources of 'stress' (both work and non-work) were more likely to identify work-related stressors.

Furthermore, figures reported by individual quantitative studies are influenced by the number of work-related factors included in their models, which varies and so may not always be comparable. In relation to the present study, previous research using the MSI indicates the seven stress-risk factors in incorporates account for approximately 28% and 36% of work-related depression and anxiety respectively (Kerr, McHugh, & McCrory, 2009b), using measures from *the job-related* well-being scale (Warr, 1990). Furthermore, Noblet, Rodwell, and McWilliams (2006) found job demands, control and support subscales alone explained 27% of *general* psychological well-being. The links between the MSI work stressors and general psychological health are bolstered further by Guidi, Bagnara, and Fichera (2012), with

39% of the variance accounted for in their study, as measured by the GHQ-12. Meanwhile, Houdmont, Randall, Kerr, and Addley (2013) indicate that just four of the HSE MS subscales (demands, control, relationships and role) explained 21% and 33% variance of psychological health in two large employee samples. Considering this evidence, it could be concluded that work-related factors explain approximately one-third of general psychological health/well-being.

Stressors covered by the SMI

Demands

Demands, in one form or another, are perhaps the most widely acknowledged stressor in the workplace; this may relate to factors such as the amount, or difficulty, of work, unrealistic deadlines, or work patterns (Mackay et al., 2004) and they are a core component of several well-established models (e.g. Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Karasek, 1979; Siegrist, 1996).

By and large, discussion of demands as a stressor refers to excessive or conflicting demands, and although too little can also act as a stressor (e.g. Leung, Sham, & Chan, 2007), the term is used here to denote higher levels of demand/workload unless stated otherwise. Moreover, demands may be differentiated as either quantitative or qualitative; the former relates to the quantity of work, while the latter refers to its complexity or difficulty in relation to the workload (Glaser, Tatum, Nebeker, Sorenson, & Aiello, 1999). Glaser et al. (1999) note that research into the effect of workload has tended to focus on quantitative demands, and the MSI appears to follow this with items concentrating on that facet. The association between excessive demands and various negative outcomes has a strong evidence-base, and they have

been linked with sleeping problems, burnout, and exhaustion (Alarcon, 2011; Bakker & Demerouti, 2007). Meanwhile, Kamarck, Shiffman, Sutton-Tyrrell, Muldoon, and Tepper (2012) indicate that higher perceived psychological demands were causally related to increases in arterial atherosclerosis over a six-year period.

Control

Control and autonomy at work – how much latitude an employee has over the way they carry out their role (Kerr, McHugh, & McCrory, 2009a) – has been widely hailed as an important moderator of employee strain (Fox, Dwyer, & Ganster, 1993; Karasek, 1979), although this interaction element of the Demands-Control model has received rather equivocal empirical support (Bakker & Demerouti, 2007). However, the main effects of [lack of] control as a psychosocial stressor have received greater confirmation from research (e.g. Nieuwenhuijsen et al., 2010; Stansfeld, Head, & Marmot, 2000). Sargent and Terry (1998) suggest that control is more beneficial when it matches the demand, while a systematic review from Egan et al. (2007) provides moderate support for control-based interventions, but also that control *per se* was not enough to ameliorate poor working conditions. It appears to be particularly important when it is lacking (Marmot, Bosma, Hemingway, Brunner, & Stansfeld, 1997), and the potential seriousness of insufficient control at work is indicated by Tsutsumi, Kayaba, Ojima, Ishikawa, and Kawakami (2007), finding a four-fold increase in suicide risk for those in the prospective cohort study whose jobs had low perceived control. While socioeconomic status may be a confounding influence, discussed previously, Marmot et al. (1997) advise that although they are correlated, control and socioeconomic status are not collinear and exert independent effects.

Role clarity

When evaluation of one's work performance is contingent on tasks or outcomes that are unclear, it introduces uncertainty about what is actually required and has been highlighted as a potential stressor (O'Driscoll & Beehr, 1994). Mackay et al. (2004, p. 99) describe this factor as incorporating both the degree of '*unpredictability of the consequences of one's own role performance*' and the presence/absence of '*information needed to perform the role*', i.e. whether employees understand what is expected, how to accomplish their role, and how it fits in with wider departmental and organisational aims. Some conceptualisations also include elements relating to incompatible demands, but two large-scale factor analyses of the HSE MSI placed items relating to this as part of the 'demands' subscale (Edwards & Webster, 2012; Edwards, Webster, Van Laar, & Easton, 2008). Lee and Ashforth's (1996) meta-analysis reports a significant negative correlation of $r = -.35$ between role clarity and emotional exhaustion. Similar magnitudes of correlation with psychological strain ($r = .50$; O'Driscoll & Beehr, 1994) and anxiety ($r = .32$; Glazer & Beehr, 2005) have been reported for the related construct of role ambiguity. Meanwhile, longitudinal research from Peiró, González-Romá, Tordera, and Mañas (2001) reported that role ambiguity was predictive of significantly increased levels of emotional exhaustion one year later.

Manager support

The impact of direct supervisors/line managers (used interchangeably here) on various employee-related outcomes has been widely reported in the literature, with evidence suggesting they may be both the 'cure' or the 'cause', in many cases (e.g. Tepper, 2000). O'Driscoll and Beehr (1994) found managers to be the most influential psychosocial factor in

the workplace. In fact, Gilbreath and Benson (2004) provide some evidence that supervisors may actually have a greater impact on well-being than even friends or family. Supportive manager behaviours have been positively linked to employee well-being and job satisfaction (e.g. Karimi, 2008; Lee & Ashforth, 1996; Moyle, 1998).

Conversely, perceptions of negative managerial behaviours are associated with poorer psychological health (Skakon, Nielsen, Borg, & Guzman, 2010), as well as physiological measures such as high blood pressure (Wager, Fieldman, & Hussey, 2003). Aggressive, dysfunctional management styles have been associated with poorer psychological health (Tepper, 2000), and lack of manager support has been linked with development of coronary heart disease (Haynes & Feinleib, 1980), but it has also been theorised that managerial support may moderate the impact of other psychosocial stressors (Gilbreath & Benson, 2004). Although evidence for the latter has been less clear-cut (Lewis, Yarker, & Donaldson-Feilder, 2013), managers may be the arbiters of important information about organisational change (a stressor in its own right; Bamberger et al., 2012), and their choice of whether, and how, to communicate such things has been shown to impact on employees health (e.g. Greenberg, 2006). Nonetheless, although some of the exact mechanisms by which managers influence the well-being of their subordinates are not wholly clear, the role of the line manager – for good or ill - has been clearly identified as a crucial one (Evans-Lacko & Knapp, 2014; Gilbreath & Benson, 2004; Lewis, Yarker, Donaldson-Feilder, Flaxman, & Munir, 2010).

Peer support

Like managers, colleagues too may be either a resource or a further stressor. The latter aspect is covered by the MSI under the heading of 'relationships' discussed next, but the category of

peer- support refers to its potential psychological health benefits. The HSE acknowledge both practical and emotional types of support. Bakker and Demerouti (2007) affirm that social support is one of the most well-known situational buffers against job strain and it is included as part of the Job-Demands-Resources model (Demerouti et al., 2001). This proposes that resources, such as social support from peers, may protect against the impact of stressful experiences and buffer against job strain (Bakker & Demerouti, 2007), a view supported by meta-analytic findings from Viswesvaran, Sanchez, and Fisher (1999). While a lack of social support has been associated with poorer psychological health (Viswesvaran et al., 1999), Laine, Saastamoinen, Lahti, Rahkonen, and Lahelma (2014) provide evidence for its ameliorative effects in their six-year longitudinal study, finding higher levels of social support at baseline was positively associated with recovery from common mental health disorders.

Despite the beneficial aspects of social support, its relationship with psychological health has provided some counterintuitive findings, with some finding positive associations between social support, health complaints and burnout (Buunk, 1990; Marcelissen, Winnubst, Buunk, & de Wolff, 1988). On the one hand, this may indicate that people actively seek and receive social support when stressors become sufficiently problematic (Viswesvaran et al., 1999); alternatively, van Dierendonck, Haynes, Borrill, and Stride (2004) cite Sacco's (1999) proposition that displays of negative emotion may actually *inhibit* support from others, as negative emotional contagion adversely influences their own mood and with it a greater tendency to subsequently withdraw (Joiner & Katz, 1999). Nonetheless, this just highlights a point that relates to all workplace stressors: the reciprocal relationship between stressor and

strain (e.g. De Lange, Taris, Kompier, Houtman, & Bongers, 2004; Huang, Du, Chen, Yang, & Huang, 2011) .

Relationships

Support from both managers and peers are potential resources, but relationships can also become stressors and there is ample evidence to suggest that poor relationships of varying degrees directly contribute to negative physical and psychological health outcomes (Kivimäki et al., 2003; Laine et al., 2014). Perhaps the most obvious manifestation of relationship-related stressors at work is bullying. This may be either verbal – hostility, persistent insults, exclusion, and belittling behaviours, among others – as well as physical, characterised by its ongoing nature (Zapf & Einarsen, 2001). Research has reported that between 11-18% of employed people have been victims of bullying (Nielsen, Matthiesen, & Einarsen, 2010); Nielsen and Einarsen (2012) provide evidence for the deleterious effects on individuals' mental health, with their meta-analysis finding significant associations with depression, anxiety and post-traumatic stress.

However, although less obviously serious, workplace incivility has also been recognised as an issue (Pearson & Porath, 2005). This may be characterised by behaviour indicating a lack of respect or regard for colleagues, with relatively low-intensity, but ongoing, relationship issues associated with psychological distress, emotional exhaustion and cynicism (Cortina, Magley, Williams, & Langhout, 2001; Laschinger, Leiter, Day, & Gilin, 2009). Pearson and Porath also note that these may be more difficult to deal with as they are less obviously deviant than bullying or harassment, and may therefore be allowed to persist. An additional point

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regarding all types of hostile or uncivil behaviour is that it also has negative effects on bystanders (Hauge et al., 2007), further contributing to a negative psychosocial environment.

Change

In relation to the austerity measures being implemented in the UK public sector since the recession in 2008, organisational change has been identified as a further stressor. Tellingly, cost-cutting, pay cuts/freezes and consequent job insecurity, both currently prominent in the public sector at the time of this research, have also been associated with increased hostility and bullying (Baillien & De Witte, 2009; Baron & Neuman, 1996). Based on their qualitative data, Pearson and Porath (2005) report that relationship-related problems are often the result of poor leadership and failure to address lower-level conflicts, which then escalate. So change may have wider implications under such challenging circumstances.

However, the 'change' factor measured by the MSI focuses on the management of change and how it is communicated (Mackay et al., 2004). The lamentable success-rate of organisational change is a common theme in the literature (e.g. Beer & Nohria, 2000; Burnes, 2004), even if the estimates appear rather speculative (Hughes, 2011). However, DeFrank and Ivancevich (1998), suggest that much of the 'stress' of change comes from the top-down form change usually takes, and the attendant uncertainty and lack of control (Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004). Change has thus been highlighted as an important psychosocial stressor (Rafferty & Restubog, 2010), that has also been linked to poorer psychological health – in common with the stressors discussed previously. Loretto et al. (2010) found employee perceptions of change were associated with increased risk of minor psychiatric disorder, while downsizing has been variously linked with negative psychological outcomes (Brenner et al.,

2014; Kivimäki et al., 2000). Crucially, with regard to how change is communicated and managed, Brenner et al. (2014) report employees' perceptions of the downsizing *process* itself moderated the impact. This echoes previous research suggesting the potential buffering effect that better management of change may confer (e.g. Greenberg, 1990, 2006). Communication and the management of change has implications for the application of stress-management interventions, which is also explored further in the next section.

This section has described and discussed a number of models and some of the most commonly reported stressors across the literature, forming the basis for the HSE's MSI questionnaire (Mackay et al., 2004). There is strong evidence linking this range of psychosocial work stressors to stress-related outcomes such as burnout, and subsequent development of mental and physical health disorders (Lang, Ochsmann, Kraus, & Lang, 2012). Understandably, therefore, the cost to individuals and employers has therefore generated a great deal of interest in identifying methods to effectively tackling these, yet the evidence-base is still small.

Addressing stressors, stress, and psychological health at work

There are various approaches to addressing employees' psychological health and the exact content and focus of interventions themselves can vary widely. However, in general, these tend to be categorised at three levels: primary, secondary, and tertiary (Murphy, 1988), depending on whether they are concerned with prevention, 'symptom management' or recovery, respectively (see table 1). The distinction between stressors, the stress process, and strain was discussed in the previous sections and these align with the aforementioned approaches and indicate the point at which interventions aim to intervene. Primary interventions target the stressors, with the aim of reducing or eliminating them (Jordan et al.,

2003); for example, interventions to increase employee control, as lack of control has been identified as a stressor (Karasek, 1979). Secondary interventions focus on improving employees' ability to cope with stressors, and commonly involve varieties of stress-management training. Finally, tertiary interventions address the symptoms that characterise the strain element (e.g. employee counselling).

Interventions at each of these levels may be further differentiated by their focus either on individuals, the individual-organisational interface or organisational level (DeFrank & Cooper, 1987). Interpreting exactly where an intervention could be categorised is not always clear-cut and may be open to interpretation (Giga, Cooper, & Faragher, 2003) and other scholars have simply classified interventions depending on whether they address individuals or the organisational context (e.g. van der Klink et al., 2001). However, although terms relating to preventative stress-management approaches, such as 'primary intervention', 'organisational intervention' or 'organisational-level intervention' are subtly different, this distinction is not the key focus of the present research, which concentrates on preventative interventions (the shaded area of table 1) addressing the psychosocial work environment. The intervention project this thesis is based upon was carried out across the whole workforce (i.e. organisational-level) with the aim of targeting and reducing the most pressing stress-risk factors (i.e. primary/preventative). Nonetheless, it should be acknowledged that the use of primary interventions does not preclude the implementation of secondary or tertiary level interventions.

Table 1: Overview of intervention levels and example interventions
(adapted from LaMontagne et al., 2007)

	Level of intervention		
	Primary **Preventative, proactive**	**Secondary** Ameliorative	**Tertiary** Reactive
Nature of intervention and main aim	Reduce potential risk factors or altering the nature of the stressor before employees experience stress-related symptoms	Help equip employees with knowledge, skills, and resources to cope with stressful conditions	Treat, compensate, and rehabilitate employees with existing stress-related symptoms
Intervention target	Tackles stressors at their source: psychosocial stressors, working conditions, organisation of work	Employee perceptions of, or responses to, stressors	Short-term and long-term adverse health-related effects of the job
Intervention examples	♦ Employee well-being steering groups (Sørensen & Holman, 2014) ♦ Job redesign (Wall & Clegg, 1981) ♦ Workload reduction (Rickard et al., 2012) ♦ Improved communication (Sluiter et al., 2005) ♦ Management training (Theorell, Emdad, Arnetz, & Weingarten, 2001)	♦ Cognitive-behavioural therapy (Bee, Bower, Gilbody, & Lovell, 2010) ♦ Stress-management training ♦ Relaxation and mindfulness-based training (Shapiro, Astin, Bishop, & Cordova, 2005)	♦ Return to work programmes (van der Klink, Blonk, Schene, & van Dijk, 2003) ♦ Occupational therapy (Schene, Koeter, Kikkert, Swinkels, & Mccrone, 2007) ♦ Counselling (Rogers, McLeod, & Sloboda, 1995)

Preventative interventions

As table 1 indicates, primary intervention may come in various forms, and these too may be categorised in various ways: NICE (2009a) summarise them as being either supervisory/leadership-focused, work/environment redesign, or participatory. The latter are aimed at giving employees more involvement and control, and may also facilitate communication and upward flow of information (DeJoy, Wilson, Vandenberg, McGrath-

Higgins, & Griffin-Blake, 2010). Interventions based on work/environment redesign attempt to address problematic aspects of the job or environment: for example, the organisation featured in Holman, Axtell, Sprigg, Totterdell, and Wall (2010) made changes to various aspects of the psychosocial environment (e.g. improving performance criteria to reduce ambiguity). Other interventions target managers/supervisors, who have been shown to play an important role in the well-being of subordinates (Skakon et al., 2010), and therefore such interventions have been identified as a fruitful approach (Gilbreath, 2012). For example, management training to improve managers' ability to communicate with and support their staff has been associated with reduced sleep-related problems in subordinates (Greenberg, 2006).

NICE's classification is broad, and there are more fine-grained ways of classifying interventions. For example, Cooper and Cartwright (1997), classify ten types of intervention focus, such as the building of cohesive teams, establishing fair employment policies, redesigning work environment or redesigning the task. However, the present chapter will look at the overall field of primary/preventative intervention evidence, and some of the characteristics they share, rather than splitting them into categories based on the intervention 'type'. Bhui et al. (2012) note the difficulties of summarising and categorising the evidence too narrowly.

Firstly, interventions frequently include more than one element. For example, in Holman et al. (2010) job-redesign solutions were developed by employee groups convened as part of the intervention process, and so this is classed as both a job redesign and a participatory intervention. This is a fairly common approach to developing interventions (e.g. Andersen &

Westgaard, 2013; Hasson et al., 2014; Mikkélsen & Saksvik, 1999), while Schaubroeck, Ganster, Sime, and Ditman (1993) attempted to improve role clarity, including elements targeting supervisors, as well as participation and enhanced control. With such overlap, it can be hard to separate and to identify which specific elements may be the 'active ingredient' in such interventions. Indeed, participation and involvement in the development of stress-management approaches have been highlighted by researchers as crucial to the efficacy of interventions in general, so it underpins the whole process (this is discussed in more depth later in this chapter).

Secondly, it is not necessarily the type of intervention that is most important; rather that it is based on the needs of the organisational setting. To uncritically apply a particular type of intervention is akin the old truism '*if all you have is a hammer, every problem looks like a nail*' (Pawson & Tilley, 1997). So it is perhaps less helpful to simply ask whether interventions targeting particular job or psychosocial characteristics are effective or not without acknowledging the contextual basis for them. For instance, although greater job control is viewed as an important protective factor against psychological strain (Fox et al., 1993), more is not always better (e.g. Parker, Jimmieson, & Amiot, 2016; Wall, Kemp, Jackson, & Clegg, 1986; Warr, 1987).

Why prioritise prevention?

There are legal, moral, and financial reasons for employers to address employee stress and well-being in the workplace. The moral argument for providing an environment that does not negatively impact on the psychological well-being of employees is emphasised by Cooper (2003) and ideally this would be enough for employers to take the issue seriously.

Nonetheless, although organisational priorities may lie elsewhere (Parker, 2003), in the UK they also have a legal duty of care to employees - a duty that now encompasses mental, as well as physical, well-being (Cousins et al., 2004). However, the huge financial costs incurred by organisations from stress-related absence and presenteeism (e.g. Centre for Mental Health, 2007; EU-OSHA, 2014) suggest that many are failing in their legal, not to mention ethical, duty to ensure the mental well-being of their staff. For organisations who do successfully address employees' psychological health there are also business-related benefits: it has been linked with organisational performance, in the form of lower sickness absence and turnover along with higher customer satisfaction and productivity (Cropanzano & Wright, 1999). Meanwhile, job satisfaction, which shares some of the same work-related antecedents as work-related well-being (Kahneman & Krueger, 2006), has been associated with superior stock market performance (Edmans, 2011). In short, protecting employees' mental health appears to make business sense.

But why should organisations prioritise preventative methods? It has been asserted that only addressing the symptoms is ineffective as a long-term strategy (Karasek, 2004). Employers may turn to employee assistance programmes and other tertiary level interventions as visible signs that the organisation is tackling stress (Strazewski, 2005). However, these do not deal with the causes and there is also mixed evidence regarding their efficacy (Kirk & Brown, 2003). The benefits of eliminating stressors can perhaps be most clearly illustrated by looking at what happens when people are temporarily removed from the stressful environment, such as during their holidays. A consistent finding from studies on the benefits of vacations, sabbaticals, and other work-breaks ('respite' research) is that time away from work during

such breaks does indeed alleviate symptoms of strain (Eden, 2001). This supports the links between work-related stressors and stress-related outcomes, *and* the view that removal or reduction of the stressor may be effective. It would be disingenuous to pretend that such breaks – holidays in particular – are beneficial purely due to being removed from the work environment; there are clearly other factors that could be influential in reducing strain: spending time with loved ones, or simply the chance to relax, for example. However, a further finding from Eden's (2001) review, that simultaneously supports the prioritisation of preventative measures and casts doubt on relying only on approaches that address 'symptoms', is that *no matter how long the 'respite'*, returning to a workplace where conditions have remained the same, employees symptoms of strain ultimately return to pre-respite levels (e.g. Kühnel & Sonnentag, 2011).

Overview of evidence for preventative approaches

Yet, although prevention being better than cure has a sound logic, Briner and Reynolds (1999) suggest such a simplistic viewpoint is inappropriate, and there appears to be an apparent mismatch between the expected benefits of primary interventions and the 'reality'. Landy and Conte (2010) advise of primary interventions' "*consistently positive and beneficial long-term effects*" (p.481) while Corbière, Shen, Rouleau and Dewa (2009) also propose that primary interventions should be prioritised. Yet contrary to these sentiments, Corbière and colleagues also concede that secondary level methods currently appear to have greater impact on psychological health-related outcomes. In fact, this is a fairly common finding from meta-analyses (e.g. Richardson & Rothstein, 2008; van der Klink et al., 2001). Bhui et al. (2012) review 23 stress-management systematic reviews and meta-analyses, finding evidence that

primary (organisational level) interventions may be of benefit, but this was modest at best; perhaps the clearest finding was the need for more research. Their review also highlights the heterogeneity of primary interventions and the difficulty of synthesising such evidence, while Richardson and Rothstein (2008) note the difficulty this heterogeneity poses when attempting to make meaningful comparisons between studies.

Another clear theme among reviews and meta-analyses was the comparatively superior performance of certain types of secondary interventions. Van der Klink and colleagues' (2001) meta-analysis assessed organisational and individually focused interventions for work-related stress (analogous to primary and secondary interventions) and their main finding was that primary intervention effects on the psychological health of employees were small and non-significant ($d = .08$). Meanwhile, secondary-level interventions (most notably, Cognitive Behavioural Therapy; CBT) were most effective. Subsequent findings from Richardson and Rothstein's (2008) meta-analysis report similar, non-significant, effect sizes for primary interventions ($d = .14$), while CBT was, once again, found to be the most effective ($d = 1.164$). Although these differences appear quite telling, Martin et al. (2009) suggest that small effects across a 'large population' (i.e. organisation-wide) may equate to the larger effects found in the narrower populations seen in individual level interventions, in terms of their overall benefits. Furthermore, it is likely that these differences are not quite as clear cut as these meta-analyses suggest, something that will be expanded on subsequently.

There is certainly more available evidence suggesting that secondary approaches targeting individuals are more effective, but these are no panacea. Individually-focused, secondary and tertiary approaches to stress-management dominate the field (LaMontagne et al., 2007), and

organisations tend to favour individual level stress-management approaches as they are less risky to implement and there is less need for the organisation itself to make potentially disruptive changes (Corbiere et al., 2009). Secondary and tertiary level interventions, such as stress management training or counselling, are generally less complex to implement (Bambra et al., 2009), and are also more amenable to stronger study designs to more clearly discern their effects (e.g. random allocation of employees to treatment/control groups). However, despite support for secondary approaches (e.g. Reynolds, 1997) their longer-term impact is unclear (e.g. Pelletier et al., 1999), as is their effect on organisational outcomes (Bhui et al., 2012; van der Klink et al., 2001). Tertiary approaches, such as counselling, and secondary approaches, that help individuals to *cope with* – rather than ameliorate – job demands have been described as 'blaming' the employee (Ganster, 1995; Karasek, 2004). There has also been criticism that they are reactive (Giga, Cooper, et al., 2003) and the efficacy in dealing with the 'symptoms' is dubious when considering Eden's (2001) review of 'respite' research mentioned previously.

Meanwhile, Gilbreath (2012) highlights the resentment that employee-focused approaches may engender in employees who feel they know the organisational root causes of the 'stress' yet see (for example) stress-management workshops implemented instead of the stressors being addressed. There is also evidence to suggest that individually focused interventions may be effective at the individual level (i.e. psychological outcomes) but do not impact on organisational-level outcomes, such as sickness absence rates (e.g. LaMontagne et al., 2007), the same as organisational-level interventions can (Bond, Flaxman, & Loivette, 2006). Although improved psychosocial conditions and psychological health of individuals is the

principal focus here, and surely a sufficient and worthy goal by itself, it is acknowledged that this is unlikely to carry the same weight with employers if their efforts do not translate into business-related benefits.

A further point regarding the meta-analyses regarding organisational-level approaches (i.e. van der Klink et al, 2001; Richardson & Rothstein, 2008) concerns the study inclusion criteria employed, which required a minimum quasi-experimental design. Non-experimental studies were excluded by these meta-analyses, thus eliminating a large proportion of the organisational-level research in this domain. For example, van der Klink et al. and Richardson and Rothstein's meta-analyses each include only five organisational/primary level studies, from totals of 48 and 36, respectively. Griffiths (1999) and Olsen et al. (2008) both acknowledge the desirability of randomised, controlled trials, but also advise of practical, ethical, and legal constraints that limit the viability of these in this context. For example, Kompier et al. (1998) note the implausibility of finding well-matched control organisations willing to undergo no changes over the period of a lengthy intervention project.

However, reviews by Corbiere et al. (2009) and LaMontagne and at al. (2007) suggest that organisational-level approaches represent a growing proportion of the work-stress intervention literature, when not restricted to experimental research designs. Although considered the gold standard for causal inference, experimental designs in this setting have been criticised as attempting to strip away relevant contextual influences (e.g. Pawson & Tilley, 1997); i.e. that studies attempting to control or eliminate so many potentially confounding variables are unlikely to be replicated in settings where they are present.

With less restrictive research design inclusion criteria, many systematic reviews of interventions to address employee well-being have included a larger number of studies than the meta-analyses. Understanding of the aetiology of occupational stress and its consequences has developed a strong evidence base, but until relatively recently there has been comparatively little in the way of research on how to prevent or reduce exposure to it (Hesselink, Wiezer, den Besten, & de Kleijn, 2012). This has changed to a degree, but the relative lack is still apparent in numerous reviews (e.g. Marine, Ruotsalainen, Serra, & Verbeek, 2006; Martin et al., 2009; Montano et al., 2014). Bhui and colleagues' (2012) synthesis of meta-analyses and systematic reviews indicates that primary interventions may have some merit, highlighting reviews reporting effects on individual-level outcomes, such as reductions in anxiety or depression (e.g. Marine et al., 2006; van Wyk & Pillay-Van Wyk, 2010). Nonetheless, the findings of those reviews (Marine et al., 2006; van Wyk & Pillay-Van Wyk, 2010) are modest and based on just four and two work-directed primary interventions, respectively; again, the clearest conclusion was the need for further research. Martin et al. (2009) draw similar, moderately supportive conclusions from their review of the evidence for health promotion interventions (including stress-management and related approaches). Nonetheless, Lamontagne et al's (2007) systematic review, which included 30 organisational-level studies, was also substantially more positive than van der Klink et al. (2001) and Richardson and Rothstein's (2008) meta-analyses.

LaMontagne et al. (2007) conclude that organisational-level approaches clearly have value and report moderate evidence for improvements to employee outcomes such as psychosocial stressors (e.g. demands and control), perceived job stress, mental health and depressive

symptoms. This contrasts with van der Klink et al (2001) and Richardson and Rothstein (2008) and it could be argued that the broader range of studies included by LaMontagne and colleagues provides a more comprehensive view of the field. The latter's inclusion of 'weaker' non-experimental studies could raise questions about their evidence, but LaMontagne et al. address this question by comparing findings of the methodologically highest rated studies (i.e. experimental, quasi-experimental designs) included in their review with those of lesser methodological quality (i.e. those that included an intervention and evaluation, but no control group). This analysis suggested no substantive difference in the findings regarding outcome efficacy between the higher and lower methodologically rated studies, which tended to support the efficacy of organisational-level approaches. Based on this, the evidence for preventative approaches is neither as bleak nor as limited as might be anticipated considering meta-analyses that focus so narrowly on specific and potentially unrealistic research designs that may not be amenable to organisational-level research (Griffiths, 1999). Although care must be taken in study design, the need to take a different approach to controlled experimental designs in this setting has been frequently made (e.g. Grant & Wall, 2009; Griffiths, 1999). Therefore, LaMontagne at al's finding provides support for the potential value of studies that do not meet the true experimental criteria. This is highly relevant to the present study and a topic that is explored further in this chapter and the following methodology chapter.

Meanwhile, Kompier et al. (1998) and Karasek (2004) also report encouraging findings regarding primary interventions, although – as the authors acknowledge – the individual case studies they reported were not systematically selected so may not be wholly representative.

Kompier et al. report improvements in sickness absence rates, and working conditions (although this was not reported in the majority of cases). However, their identification and collation of a number of common elements associated with successful outcomes from these cases is their most important contribution. It is this information in particular that can be of great value in understanding and directing future organisational interventions, and represents two of the earliest systematic attempts to recognise the influence of contextual and intervention implementation-related factors in the organisational-level interventions; the importance of a systematic, stepwise process (Kompier et al., 1998) and the role of senior management (Karasek, 2004). However, they also note the difficulty of obtaining detailed information on many aspects so their conclusions were tentative.

Given this, Aguinis, Pierce, Bosco, Dalton, and Dalton's (2011) assertion that a single effect size from a meta-analysis cannot summarise an entire literature is particularly relevant when considering both the heterogeneity of interventions, as well as some of the factors that can derail them. Some of these factors, relating to implementation and methodological issues are explored later in this chapter, because without considering some of these complexities research may provide erroneous conclusions.

There has been a growing call for evidence-based management (Briner & Rousseau, 2011) with systematic reviews and meta-analyses at the top of the hierarchy of evidence (albeit dependent on the quality of studies they include; Briner, 2014). Employers who avail themselves of this research may well be put off attempting preventative approaches when the benefits appear so slight. Because preventative interventions are not entirely risk-free for organisations. Firstly, they are often time- and resource-intensive (e.g. Andersen &

Westgaard, 2013; Olsen et al., 2008; Rickard et al., 2012) and secondly, disappointing attempts at such changes may also lead to disillusionment and cynicism from employees about future efforts (e.g. Biron, Gatrell, & Cooper, 2010; Coffey et al., 2009; Saksvik, Nytrø, Dahl-Jørgensen, & Mikkelsen, 2002), thus diminishing their chances of success (Biron & Karanika-Murray, 2014; Graveling, Crawford, Cowie, Amati, & Vohra, 2008). This reflects the complexity of organisations and the many factors at both individual and organisational levels that pose challenges for practitioners and researchers alike.

A large-scale study by Taris et al. (2003) assessing employers' attempts to employ a range of stress-management interventions in 81 organisations offers a clue regarding the mixed findings from primary interventions. Their research found that preventative strategies, applied across the organisation, were most effective compared to individually-focused methods, having more consistent positive effects in reducing emotional exhaustion over the two-and-a-half year study period than individually directed approaches. These improvements were, again, relatively modest; however, Taris and colleagues note that they were not able to assess the quality of interventions nor their implementation; therefore, due to the presence of potentially poorly delivered interventions diluting the overall results this may represent a conservative indication of organisational-level intervention efficacy. Indeed, there is enough evidence to suggest that the presence of poorly (or non) implemented interventions among this large sample of organisations is probable rather than possible (e.g. Aust et al., 2010; Sørensen & Holman, 2014). It may seem obvious, yet few studies had accounted for this in their research prior to the last decade (e.g. Nielsen, Fredslund, Christensen, & Albertsen, 2006) - at

least not empirically. Taris and colleagues' point highlights an important factor in some of the inconsistent findings and is something that the present study attempts to assess.

Process and context in preventative interventions: facilitating factors

Researchers have advocated that organisational intervention research should incorporate process evaluation, in order to go beyond mere outcome-only evaluation (e.g. Baril-Gingras, Bellemare, & Brisson, 2012; Biron & Karanika-Murray, 2014; Murta et al., 2007; Nielsen & Abildgaard, 2013; Nielsen & Randall, 2012). The sheer complexity of the organisational setting means that a great many potentially relevant factors have been identified (Egan, Bambra, Petticrew, & Whitehead, 2009; Havermans et al., 2016; Nielsen & Randall, 2013). The feasibility of addressing these in a single study has been recognised, particularly when research into the relative importance of these is still in its infancy (Nielsen & Abildgaard, 2013). However, there are some factors in particular that have emerged from the literature and implicated in the inconsistent findings described previously. The present research attempts to integrate these elements within the evaluation of the intervention project that is the subject of the thesis. The remainder of the chapter discusses these at greater length. These factors can relate to the way an intervention/project is implemented, the people and roles involved, external or contextual variables, or methodological issues; and which can also overlap. Firstly the 'success factors' are discussed: elements of the process that should be in place to maximise the chances of success. This is followed by coverage of other contextual factors that may confound the best-laid plans. Given that the present study is attempting evaluation of a complex process, relevant methodological factors are also considered, because although these should not help or hinder the process itself, they can determine the extent to

which a study is able to detect any effects. All of these factors can help interpretation of the apparently inconsistent findings.

Despite the previous lack of explicit attention to factors beyond 'outcomes' and uncertainty over exactly which of these factors should be prioritised, understanding of these has grown. Studies reporting even fairly basic information on process and contextual factors can still provide valuable detail (Johns, 2006), even though this is often brief, anecdotal, or post hoc (Bambra et al., 2007; Murta et al., 2007). Despite limitations, such information has at least allowed reviews and guidance to distil some of the features common to successful, and not so successful, interventions (e.g. Jordan et al., 2003; Karasek, 2004; Kompier et al., 1998; Murphy & Sauter, 2004; National Institute for Health and Care Excellence, 2009a; Semmer, 2003).

Jordan et al. (2003) highlight some of these 'success factors', such as the need to take a systematic, stepwise approach (e.g. Kompier et al., 1998), where interventions are based on risk analysis (Cooper et al., 2001; Murphy & Sauter, 2004) and incorporate employee participation (Karasek, 2004). Furthermore, this should be underpinned by good communication and senior management commitment to the process (e.g. Jordan et al., 2003; Murta et al., 2007; Nytrø, Saksvik, Mikkelsen, Bohle, & Quinlan, 2000), as its absence may be a real barrier to effective implementation (e.g. Coffey et al., 2009; Landsbergis & Vivona-Vaughan, 1995). It is perhaps unsurprising that research on interventions omitting key elements – such as a diagnostic phase – might appear ineffective (Cox, Griffiths, & Rial-González, 2000). After all, how successful would a clinician be if they routinely applied their treatment of choice without first spending time on diagnosis?

These factors are drawn from research, and as such also feature in the growing intervention process evaluation literature (e.g. Nielsen & Randall, 2013). It is therefore acknowledged that slightly different terms may be used to describe similar factors, and that some may be split into smaller, more specific categories depending on the framework or approach taken to categorising them (e.g. Biron & Karanika-Murray, 2014; Havermans et al., 2016; Nielsen & Abildgaard, 2013; Nielsen & Randall, 2013). However, for the purposes of this thesis such terms have been kept relatively broad in recognition of the relative infancy of this field and that presently precision regarding these elements is lacking.

Tailored approach

Process evaluation research has highlighted the importance of documenting the extent to which intervention activity was based on a 'needs assessment' (e.g. Biron & Karanika-Murray, 2014; Nielsen & Randall, 2013). Both research and practice agree that interventions should be based on the requirements of each setting. Cooper and Cartwright (1997) advise that the issues and risks within each organisation will differ, and therefore any intervention should be based on a diagnostic phase. In fact, Jordan et al. (2003) conclude no inherent superiority of one particular intervention over another, but the efficacy of these is based on whether or not each is employed *in response to an identified need*. Identifying the issues felt by a large proportion of staff is important because interventions that may be beneficial for some could actually be perceived as detrimental to others (Semmer, 2006). Hasson et al. (2014) suggest this as a factor in the weak results of many studies. For example, Wall et al. (1986) study of increasing employee autonomy – generally viewed as beneficial – found that some employees were unhappy with the additional responsibility that came with it.

Deployment of interventions should be dependent on the establishment of clear causal factors prior to selection of an intervention strategy; this formed the rationale for the development of HSE's Management Standards and the associated MSI questionnaire designed to assist employers with this diagnostic phase (Mackay et al., 2004). Van der Klink et al (2001), Seymour and Grove (2005), and Cox, Griffiths, and Rial-González (2000) all noted a 'failure' in the literature to tailor interventions, while Reynolds (2000, p.317) reports that "*[t]he majority of studies of organizational change suggest that a baseline assessment is not a common prerequisite for developing interventions*." Arthur, Bennett, Edens, and Bell (2003) found just 6% of training intervention studies in their meta-analysis reported being based on a needs assessment. However, considering such criticisms, it is actually quite difficult to find an organisational-level intervention that does not use risk/needs assessment or tailoring, at least in some form (although they do exist: e.g. Biggs, Brough, & Barbour, 2014). These are often based on staff surveys (Anderzén & Arnetz, 2005), and/or approaches that allow greater levels of involvement, such as participatory employee workshops (Dollard & Gordon, 2014). However, Anderzén and Arnetz (2005) suggest that tailoring is not necessarily omitted, but rather that most psychosocial interventions are not customised to the needs of *each unit* involved and that 'one-size-fits-all' approaches are commonly applied across different units within an organisation.

Yet, even though it may be desirable, tailoring an intervention to the needs of each department or work unit may be a challenge for organisational interventions, and resources may dictate the extent of tailoring. However, LaMontagne et al. (2007) acknowledge that even traditional systematic data collection approaches, such as surveys, may be usefully employed to identify

key areas to be addressed and offer a compromise. Nonetheless, some form of tailoring is important, whether at organisational-level or lower. Dalgren and Gard (2009) report that successful interventions are at least more likely to be adapted to the organisational context, as exemplified by Sun and colleagues' (2013) two-and-a-half-year study, encompassing nine Chinese organisations. Their organisational-level interventions were specifically tailored, based on a needs assessment, to each of the settings and found positive changes on a range of outcomes, from reduced depression-related absenteeism and job 'stress', to improved 'control' and coping with demands across the organisations. Another successful intervention, by Anderzén and Arnetz (2005), explicitly incorporated the needs assessment survey as a key part of the process; each work unit used their survey results to select their own key priority areas to focus on. This study also had the advantage of including objective physiological measures, which showed similar improvements and validated the positive changes to self-reported measures of employee well-being and psychosocial work environment. Unfortunately, Anderzén and Arnetz were only able to use aggregated, work-unit level data, rather being able to match individual participant pre- and post-intervention measures, but this only emphasises the strength of their positive findings.

While there are comparatively few primary interventions that are not based on an identified local need, or that attempt some form of risk/needs assessment prior to the selection and implementation of their interventions, they do exist. A number of these regard manager-focused interventions. Biggs et al. (2014) deployed a leadership development programme, with the aim of improving management, and support for subordinates, which should – they theorise – improve the psychosocial environment, and consequent psychological strain.

While there were very small improvements to a number of psychosocial elements, such as 'strategic alignment', in comparison with the control group, there was no change to psychological strain. Perhaps surprisingly given the focus of the intervention, there was also no significant difference between the groups on perceptions of 'supportive leadership'. Although managers have been widely identified as key figures in employee well-being (Gilbreath & Karimi, 2012), the extent to which management/leadership was originally problematic in their organisation is not clear from the study. It could be reasoned – based on these results – that management may not have been the main priority in this case; some initial assessment of the psychosocial work environment would have informed this view. Similar comments could also apply to the supervisory training intervention of Takao, Tsutsumi, Nishiuchi, Mineyama, and Kawakami (2006) which found no overall significant changes in the psychological health of subordinates. Meanwhile, Sluiter et al. (2005) included no specific needs assessment element in their largely successful 'shift evaluation'/debrief intervention, but they cite a large amount of literature relating to the key issues facing staff working in the type of unit they studied (paediatric intensive care units), so it could be argued that some form of tailoring, based on the particular challenges faced in a fairly specific field – rather than unit – was actually employed.

Participation

Lack of control has been implicated as a key stressor, and in various psychological- and physical health-related problems, such as the development of cardiovascular disease (Theorell & Karasek, 1996). Conversely, participation and involvement may be a method of providing employees with some semblance of control, and it is one of the most frequently identified key

factors in the success of organisational change of any kind (Kompier et al., 1998). Following on from the discussion of the significance of a risk/needs assessment stage – to identify key local priorities - there is another reason this step is important: it gives employees a say in proceedings. Participation, or at least having some involvement, has been identified more generally in the psychological literature as a crucial component in the success of many organisational initiatives (Cawley, Keeping, & Levy, 1998). Moreover, Le Blanc, Hox, Schaufeli, Taris, and Peeters (2007) affirm that participatory practices may increase employees' perceptions of job control, known to be associated with lower work-related strain (Karasek & Theorell, 1990).

Participation in the development of organisational level interventions has been considered so important that it has been employed as an intervention in its own right, in different ways e.g. Participatory Action Research (PAR) or Health Circles (Nielsen, Randall, Holten, & Rial-González, 2010). Nonetheless, Nielsen, Randall, and Albertsen (2007) stress that "*participation is a necessary, but not sufficient, ingredient of successful interventions*" (p.794). Findings have tended to support the impact of participatory interventions (e.g. Anderzén & Arnetz, 2005; Bambra et al., 2009; Dalgren & Gard, 2009; Eklöf, Ingelgård, & Hagberg, 2004), but Lines (2004) points out that participation is complex, has different forms, and their appropriateness depends on the context. This can be seen in the different approaches to participation or involvement across the organisational intervention literature, discussed further on. It is also worth noting, that in addition to participation taking different forms, it may also do so at different stages of the intervention process; e.g. participation in the development of interventions, as distinct from taking part in intervention activities themselves.

This is mentioned here because it has implications in this study where employee participation is considered; the words participation or involvement are used where participation in the process is being discussed, while participation in interventions (i.e. whether employees attended or experienced them) uses more specific terms such as employee exposure [to an intervention], attendance at an intervention event/activity, or experience of it. It is difficult to make absolute distinctions because they may overlap, but it is intended to clarify the meaning throughout the thesis.

Even at its most basic level, participation may be an avenue for employees to voice opinions in relation to management proposals and decisions. Certainly, participation seems to be well-received by employees (e.g. Andersen & Westgaard, 2013; DeJoy et al., 2010; Dollard & Gordon, 2014), and it may also be beneficial due to increased perceptions of procedural justice (Folger & Greenberg, 1985). This seemingly holds even when people are aware that it will not influence the final outcome (Cawley et al., 1998). So, it may be that participation *per se* allows employees to have a voice (e.g. Wood, 2008), which has been shown to reduce resistance to change (Lines, 2004), but involvement that actually confers greater levels of 'real' participation (i.e. with at least some degree of instrumentality) has the added benefit of opening up communication channels from employees to managers helping to identify key issues that may not be apparent to senior management (Andersen & Westgaard, 2013; Hasson et al., 2012). The importance of tailoring interventions has already been discussed, and getting the most accurate information about priority areas is an important precursor to the selection of appropriate interventions (Arnold & Randall, 2010). So participation can inform the process, in addition to satisfying the basic requirement of being heard.

A systematic review of interventions aimed at increasing control and participation (Egan et al., 2007) returned generally supportive results for participatory strategies. An early study (Jackson & Schuler, 1983) showed positive effects of an intervention to increase participation in decision-making on role-related psychosocial stressors, and subsequent emotional strain, in comparison with control groups. More recently, a participatory study by Sørensen and Holman (2014) also led to improvements in a range of job characteristics as well as burnout, while Dollard and Gordon (2014) found similar beneficial changes to the psychosocial environment, as well as 'morale'. Mikkélsen, Saksvik, and Landsbergis (2000) show similar improvements to the psychosocial environment but no change to subjective health and anxiety directly after their 12 week participatory intervention, although this may be due to a relatively short follow-up period not allowing enough time for changes to the psychosocial environment to have their effects on employee stress/well-being.

Egan and colleagues found considerable variation in the type and level of participation across studies; for example, at the upper end of the involvement spectrum, PAR places employee involvement as the core element of the intervention and groups of employees actively engage in developing and implementing solutions collaboratively (McVicar, Munn-Giddings, & Seebohm, 2013). Alternatively many participatory approaches involve some form of employee representation on well-being committees or steering groups (Bourbonnais et al., 2006; Heaney et al., 1993; Park et al., 2004), although some directly involve all employees (Wall & Clegg, 1981), while Petterson, Donnersvärd, Lagerström, and Toomingas (2006) trained a number of senior staff members to facilitate their participatory intervention with employees. However, Nielsen and Randall (2013) raise concerns about approaches that only

involve a small proportion of employees, on steering groups or health circles, citing Hurrell's (2005) assertion that the benefits of participation can only be achieved if all employees are involved. However, depending on the context, simply surveying employees to identify key issues via questionnaires may also be usefully applied (LaMontagne et al., 2007). Nonetheless, Dalgren and Gard (2009) indicate that the degree of officially sanctioned participation is positively associated with intervention outcomes. Documenting the level of employee participation in the process can help inform the role this plays, not just in terms of participatory interventions, but in terms of how participation contributes to the process as a whole (Nielsen & Abildgaard, 2013). This extends to the situations where steering groups are employed to guide the process (as was the case for this thesis) where Nielsen and Abildgaard also recommend detailing its makeup, activities, and decision-making capacity.

Nonetheless, circumstances may often dictate what is practical, and participatory practice may not be feasible or appropriate in all situations (Schaubroeck et al., 1993; Schweiger & Denisi, 1991). This may be a particular challenge in larger organisations for various reasons, particularly considering the 'distance' between those responsible for decision making and frontline employees. The impact that organisation size has on the proportion of employee satisfaction with levels of involvement in decision-making is illustrated by data from the 2011 Workplace Employment Relations Study (WERS; van Wanrooy et al., 2013). This data shows a progressively lower percentage of staff satisfied with their involvement as a function of organisation size: from 59.3% of employees in organisations employing between five and nine members of staff, to 38.5% in those with 500 or more. This is pertinent to the present study – and the public sector setting for the research – as this figure is even lower in the public

sector at 36%. Support for this trend is also found in the organisational psychology literature: Rhoades and Eisenberger (2002) found that levels of Perceived Organisational Support (POS) also tended to be lower in larger organisations, and POS is associated with a number of practices relevant in the present context, particularly participation and being listened to (Mills, Fleck, & Kozikowski, 2013). This is perhaps unsurprising given the increased levels of hierarchy, structure and bureaucratic processes characteristic of large organisations (Parker & Bradley, 2000; Yang & Maxwell, 2011). This also hints at some of the implicit organisational constraints in terms of the practical level of employee participation as part of interventions, particularly in large organisations, in addition to those based on the availability of resources.

There is another question regarding the level of participation: studies have increasingly considered the degree of *intended* versus *actual* participation (Nielsen & Randall, 2012; Sørensen & Holman, 2014), while Montano and colleagues (2014) highlight the role this may play in the process. Sørensen and Holman (2014), for instance, reported that two of the six organisations involved in their study did not actually implement the planned participatory intervention, and only two were considered as fully implementing it (with two others classified as 'medium' implementers). Employees also rated the process more highly in the 'high' implementing organisations and, most tellingly, those organisations also saw greater improvements across the majority of outcome variables, including burnout, in comparison with the other organisations. Meanwhile, Nielsen and Randall (2012) report that perceived levels of participation in interventions were also significantly associated with affective well-being, while staff in Hasson et al. (2014) who perceived their intervention more positively appeared to benefit most, in terms of improvements to psychosocial conditions (decision

latitude and supervisor support). These findings underline Taris and colleagues' (2003) point regarding the potential for variable levels of implementation diluting the positive, but modest, findings for primary interventions in 81 organisations. This only emphasises that the dominant focus on evaluating intervention outcomes without similar consideration of intervention implementation may be a further factor in the often inconsistent results. Assessing employees' exposure to and perceptions of intervention activity can provide valuable information about implementation and outcomes, and is assessed as part of the present research. However, what this section shows is that participation is generally beneficial, but there are numerous factors that will influence the efficacy and feasibility of participatory interventions.

Communication

Communication in the process of organisational-level interventions is a further important factor (Karasek, 2004), although less heralded in intervention research than participation. In addressing potential stressors in the workplace Hasson et al. (2014) indicate that *perceptions* of an intervention were as influential as exposure to it and those perceptions may be influenced by communication. For example, Greenberg's (2006) finding that 'better' management communication of unpopular salary-related change was related to lower levels of self-reported subordinate sleep problems also suggests the influence of effective communication even when it is clear managers have no power to alter such decisions.

In common with participation, the term communication may be interpreted and applied to the intervention process in many ways. It is important at every step; at the initial information gathering/needs assessment stage, getting employees interested and involved may be

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dependent on how it is promoted, which may in turn have an impact on participation itself. Qualitative data from Coffey et al. (2009) indicates the importance of results of initial assessments being fed back to staff, and the scepticism generated when they are not; the provision of clear signposting of the next steps and implementation of any interventions is also crucial. For example, Sørensen and Holman (2014) found that provision of information was one of the most influential factors differentiating the organisations that successfully implemented interventions from those which did not in their participatory intervention study. Nielsen et al. (2007) also found that project communication had both direct and indirect effects on employees' perceived changes in working conditions, seemingly facilitating both participation and employees' perceived influence on the process. Indeed, mere *awareness* of the stress-management activity undertaken by their organisation has been negatively associated with psychological strain in a 'longitudinal' study (Pignata, Boyd, Gillespie, Provis, & Winefield, 2014). Furthermore, communication-related activity has been successfully applied as an intervention in itself; Sluiter et al. (2005) applied a multidisciplinary post-shift evaluation in an intensive care unit, allowing staff to 'let off steam', and discuss work issues with the rest of their team. The intervention was well-received by staff, and was associated with reductions in emotional exhaustion.

Management support: Senior management

Senior managers have been identified as key drivers of the organisational culture, so it is unsurprising the literature likewise suggests they have a similarly important role in the efficacy of stress-management interventions. To begin with, they are frequently responsible for setting priorities and the underlying rationale for the project(s), which are influential in the

direction of outcomes; Nielsen and Randall (2013) suggest the extent to which they support the intervention process be reported by intervention research. It could appear to be a relatively minor detail, but Bambra et al. (2009) report that disappointing psychological health-related outcomes were more likely when business-related outcomes rather than employee health were the main motivator for intervention (e.g. Andersen & Westgaard, 2013; Aust et al., 2010; Mikkélsen & Saksvik, 1999; Takao et al., 2006). Furthermore, a number of studies have indicated that clear management support for practices which promote inclusion are a key component in addressing the workplace culture (Hunt, Davidson, Fielden, & Hoel, 2007), which links to the previous section on participation.

Senior management are also likely to control the allocation of resources (Montano et al., 2014): an influential function, indicated by numerous studies (e.g. Coffey et al., 2009). However, it seems that their effect on outcomes has been felt most keenly when their support was poor (e.g. Landsbergis & Vivona-Vaughan, 1995). Moreover, even where initial support exists, leadership changes can adversely affect the process (e.g. Andersen & Westgaard, 2013). Andersen and Westgaard posit that top-level personnel changes may result in such projects simply becoming a 'piece of work' to the new incumbent rather than something they themselves had been involved in developing, thus reducing the priority given to it: an interesting twist on the employee involvement and participation discussed previously. Montano and colleagues' (2014) also found senior management capacity to allocate or deny support/resources over the course of a project as key to its successful maintenance. This is underlined by Sørensen and Holman (2014), who found the level of implementation in participating organisations depended on timely support from senior management. Mikkélsen

and Saksvik (1999) indicate what may happen when this is absent, as the senior management steering group – responsible for supporting the intervention (participatory employee work-groups) – reportedly showed very little active interest as their project progressed. Senior management attendance at meetings was poor and the feedback they had originally agreed to provide to the work-groups was not forthcoming, resulting in loss of employee motivation and feelings of 'not being taken seriously'. Accordingly, disappointing outcomes were reported.

Although the role of top management has been reported as influential by numerous studies, many are anecdotal (Semmer, 2006) and are used post-hoc to explain disappointing intervention outcomes. Even where leadership-related information has been systematically recorded during the intervention process (e.g. Olsen et al., 2008), it is not clear exactly if, or how, this may have influenced outcomes. Consequently, there is a need to document this throughout the project (Nielsen & Randall, 2013).

Management support: Line managers

The role of line managers and supervisors in the well-being of their staff has also been well-recognised (Gilbreath & Benson, 2004; NICE, 2009a; 2015), and interventions targeting manager support have been encouraging (e.g. Biggs et al., 2014). Moreover, they may also be influential in another, indirect, way; because, even with senior management support for intervention projects, the success of stress-management interventions may be determined by management at lower levels. The part played by line managers in the implementation of interventions has been identified by numerous studies (e.g. Lavoie-Tremblay, 2004; Lavoie-Tremblay et al., 2005; Logan & Ganster, 2005), for it is often managers at this level who are the ones tasked with their implementation. A recent qualitative study of the implementation

of the HSE Management Standards also reported the importance of line manager commitment to the process, as well as their ability to carry out the required action plans (Mellor, Smith, Mackay, & Palferman, 2013). Department managers in Hasson and colleagues' (2014) study, for instance, were responsible for collaborating with employees and making changes to reduce exposure to demands, control and social support. There was some indication that the implementation of agreed follow-up meetings, among other supervisor-related behaviours, was positively associated with related improvements to the psychosocial environment.

Summary of facilitating factors

These facilitating factors have been drawn from the literature and are also included in guidance from the HSE (2007) and NICE (2009a). However, it is important to note that although they have been identified as beneficial to the intervention process, the evidence for their role is also not entirely clear, hence the calls for more process evaluation-based intervention research. As preventative stress-management intervention research is still rare compared to individually-focused approaches and more is needed (Bhui et al., 2012; Cooper, 2012; Maricuţoiu, Sava, & Butta, 2016), the factors discussed in the preceding sections are drawn from a relatively small evidence-base. They have instead, been identified as common themes that appear to be associated with implementation outcomes (Nielsen & Abildgaard, 2013). This is valuable, but not conclusive, and therefore warrants further research. The nature of many of these factors, particularly communication and participation, are open to interpretation and this is reflected in the variability of how these elements have been employed. Nonetheless, although evidence for exactly how some of these elements should be applied is still very much developing, findings from preventative interventions have coalesced

around them and strongly indicates that they should be considered in the process where possible (table 2 summarises how these are incorporated within the present study).

Table 2: Summary of facilitating factors and their intended role in the present study

Success factor	How this was intended to be addressed by PublicOrg and the research
A structured, stepwise approach	• The present research follows the stepwise approach based on Kompier et al (1998) and the HSE, paralleled by a process evaluation framework from Nielsen & Abildgaard (2013) (outlined from page 77)
Tailored	• Baseline employee survey assessing psychosocial stressors and current levels of psychological well-being is being used to guide PublicOrg's intervention activity
Employee participation	• Employee survey, also including free-text comments boxes to allow them comment beyond the quantitative survey questions. • Focus group/feedback session run by the PublicOrg to allow employees to comment on the baseline survey findings
Senior management support	• Details of senior management support is documented throughout the process
Line manager support	• Line managers' involvement is planned by PublicOrg in the dissemination and participation of employees in the baseline assessment
Communication	• Results of the baseline survey will be communicated to employees & perceptions of this communication are assessed in the follow-up survey • PublicOrg has also been advised to keep employees regularly updated on progress

Process and context: methodological issues

These aforementioned factors, associated with successful interventions, are also influential when they are *not* present; indeed the evidence suggests this is when they are most influential. For example, participation – despite being an integral part of some interventions – does not always occur to the intended degree (e.g. Dahl-Jørgensen & Saksvik, 2005; Mattila, Elo, Kuosma, & Kylä-Setälä, 2006; Sørensen & Holman, 2014), or senior management support may not ultimately be forthcoming (Coffey et al., 2009). Furthermore, there is no one-size-

fits-all for applying the aforementioned success-factors, which again, harks back to the need to ensure the interventions and component parts are tailored to the setting. Another, related aspect of the process is the quality of the intervention and its implementation.

Intervention implementation

It is one thing to design and plan the intervention, it is quite another to ensure it is carried out as planned (e.g. Saksvik et al., 2002). Montano et al. (2014) conclude that one of the most common challenges for this level of intervention research is that they may not work as anticipated, or "*are not realised as originally designed*" (p.6). Another issue, highlighted by Hasson et al. (2012) in their exploration of manager and employee perceptions of an intervention, is that managers/leaders may *think* it has been delivered as intended – a view that appeared to diverge markedly with perceptions of employees. Studies that fail to account for implementation-related factors risk erroneously concluding such interventions are inherently ineffective when the flaw may actually lie with its implementation or elsewhere (Bambra et al., 2009; Randall, Griffiths, & Cox, 2005). This is a crucial distinction and findings from organisational-level studies perhaps reflect that there is more that can go wrong in these types of intervention in comparison with individually-focused approaches.

Organisations are dynamic systems, involving a range of social factors and interest groups, so preventative interventions at this level, in particular, may be difficult to implement (Schurman & Israel, 1995). Graveling et al. (2008) indicate that problems with the quality of interventions are often noted in the literature, so given the additional challenges in effectively deploying and evaluating organisational-level interventions, it is unsurprising that results are somewhat inconsistent. After all, intervention effects that are sensitive to variations in

implementation may be masked in research gathering only outcome evaluation data (Lipsey, 1996, cited in Nielsen & Randall, 2012), a point reinforced by a number of studies (e.g. Randall et al., 2005; Sørensen & Holman, 2014).

Details of factors that may have influenced intervention quality may be highly informative, yet such important information is often omitted (LaMontagne et al., 2007; Martin et al., 2009; Montano et al., 2014; Olsen et al., 2008). Havermans et al. (2016) report that only 9% (4 out of 44) studies in their systematic review of intervention studies included assessment of employees 'exposure' to intervention activities as part of their research, and fewer than half (43%) provided contextual information; support of stakeholders (e.g. senior managers) and perceptions of interventions were the most frequently reported at 55% and 68% respectively – although such details are frequently post hoc reports (Murta et al., 2007). There are some big gaps illustrated by Havermans and colleagues that only confirm the need for more consideration of process evaluation (e.g. Nielsen & Randall, 2013).

Process evaluation in this type of research is such a crucial component, and forms an important element of the present study. Where researchers have conveyed such issues, they are often instructive, e.g. Landsbergis and Vivona-Vaughan (1995) and Mikkélsen and Saksvik (1999), report issues with organisational change and variable management support that inform the relatively weak results of theoretically sound participatory interventions. Meanwhile, blanket organisational-level interventions may not be uniformly applied across all staff – differing levels of enthusiasm, time, or resources can mean some employees are not even aware of potential changes, and are therefore unlikely to benefit in comparison with those who are exposed to the intervention (e.g. Randall et al., 2005). Hasson et al. (2014) go

further and suggest that in addition, employee perceptions of intervention quality are equally important, as previously mentioned, significant improvements to employees' perceptions of supervisor support and decision latitude over two years were found only for those with positive perceptions, in contrast to those who rated it more poorly.

Another, related, issue regarding planning and implementation is the potentially unintended consequences that may occur from an intervention. Such consequences could confound the effects of the intervention itself, as in Andersen and Westgaard's (2013) study: they evaluated how issues of role clarity and workload were addressed by standardising some of the home-care employees' tasks. However, the authors acknowledge that this 'Taylorisation' may have had negative consequences. The improved 'efficiency' seemed to increase demands on the one hand, while simultaneously reducing employees' sense they were providing sufficient care for their 'patients', as their interactions became more restricted and diminished relationships. In addition, the rationale for this aspect of the intervention could easily be perceived by employees as a method of increasing productivity, rather than improving their situation; given that productivity-motivated interventions have a poorer success-rate than those motivated by well-being concerns (Bambra, Egan, Thomas, Petticrew, & Whitehead, 2007), there were clearly several problematic facets to the overall intervention.

Study design in intervention research

Regarding the aforementioned research design challenges facing organisational studies, Semmer (2006) asserts that it is not necessarily a lack of control groups that is the issue in such 'weak' study designs, but the fact that they often '*do not even go to the limits within the designs they used*'. Experiments and quasi-experiments are seen as the gold-standard in terms

of allowing causal inferences (Shadish, Cook, & Campbell, 2002), and with good reason, but they bring their own methodological problems. These may be particularly problematic as the workplace is not a laboratory where conditions can be carefully controlled (Schelvis et al., 2013). For example, Landsbergis and Vivona-Vaughan (1995) employed control groups and found mixed results from their primary intervention, but reported that a director of one of their control departments became aware of the intervention and, being keen to improve the situation in that department, attempted to implement their own plans during the course of the study. It should be noted that there appeared to be no great change in the intervention groups even before comparing with the controls, so the efficacy of the intervention could be questioned anyway, but this among other studies still illustrates the contamination that can occur in this type of environment (Nielsen et al., 2006). It is helpful that the study reports such potential confounds, but it is also possible that researchers may not always be aware of such machinations. Semmer (2006) also suggests that control groups may 'envy' intervention groups, while Mattila et al. (2006) found that employees from the treatment and control groups in their study also worked in the same areas and were potentially both exposed to interventions initiated by the treatment group, and outcomes subsequently varied more between departments than between the intervention and control groups.

Grant and Wall (2009) highlight the benefits of quasi-experimental designs, and adapting the research to the environment rather than attempting the reverse. A simple and effective illustration of this is demonstrated by Randall et al's (2005) collection of data regarding employees' exposure to the intervention as part of the follow-up survey, which allowed them to assess the differential effects of exposed versus non-exposed employees. The overall

pre/post intervention comparison showed no changes, but when analyses considered intervention exposure, there were significant interaction effects, with improvements to emotional exhaustion for employees who received the intervention, compared to those who reported they did not. While this non-randomisation could be considered a weakness from a traditional experimental standpoint, by allocating participants based on naturally occurring patterns of exposure it more accurately mirrors the real world, improving ecological validity.

Timescales for intervention effects

Following Cooper et al's (2001) stress framework whereby stressors can lead to strain via the process of 'stress', the time window for a research project is highly salient. Based on this, and on the aim of an intervention to minimise stressors, then it is most likely that stressors (i.e. the psychosocial environment) would be the first to show any intervention effects. Short timescales may be insufficient for its impact on distal outcome such as psychological health to be measured (Giga, Noblet, Faragher, & Cooper, 2003) and the largely successful collection of intervention projects reviewed by Kompier and colleagues (1998) averaged around four years in duration, with a minimum of two years (where duration was reported). Dollard and Gordon (2014) also indicate that longer timescales may be required for organisational-level approaches to filter through and manifest themselves in psychological health-related changes at the individual level. Their participatory intervention study, based on identification of key issues and collaborative development of priorities and action plans with staff, did find improvements to intervention-related psychosocial factors, but not sickness absence.

Such changes to the psychosocial environment may at least indicate that an intervention has *begun* to work, and this finding is actually reflected in numerous other studies. Schaubroeck

et al. (1993) supervisory-focused intervention to improve role clarity found the hypothesised reductions in role ambiguity, and 'dissatisfaction with supervisor', but also no changes to psychological distress, after the three-month follow-up. Meanwhile, Jackson (1983) found differences in the psychosocial environment between control and intervention groups after six months that were not apparent after three. However, their key outcome variable – sickness absence levels – did not change during this period. A good illustration of the lag between improved conditions and improved well-being-related outcomes over short- and longer-term is provided by two papers following the same intervention project; these indicate similar changes to the psychosocial environment over the first 12 months of the intervention process (Bourbonnais et al., 2006), which were even stronger at 36 months (Bourbonnais, Brisson, & Vézina, 2011). Furthermore, at the latter point, there were also significant positive changes to burnout-related measures not present in the control group. This supports the findings of Holman et al. (2010), who indicate that changes to psychological well-being are mediated by changes in psychosocial work factors.

As discussed previously, evidence for the impact of primary interventions on psychological well-being has not always been as strong as expected, but the evidence of their impact on the psychosocial characteristics they were designed to target is stronger. That in itself is encouraging: something is happening, but it appears to take time for these changes to manifest themselves in changes to employee psychological health. Sun et al. (2013) also state that little is known about how long any benefits of interventions may last, but some of the research discussed here suggests that changes to the psychosocial environment from a primary intervention may be early indicators of subsequent improvements to employee psychological

health outcomes. Furthermore, they may also provide some indication of realistic timeframes: perhaps a period of several years for changes to psychological health (Bourbonnais et al., 2011; Kompier et al., 1998), but six months may be enough to expect some changes to the psychosocial environment (Park et al., 2004).

Context and organisational change

Context plays a prominent role in all recent process evaluation frameworks (e.g. Biron et al., 2014; Nielsen & Abildgaard, 2013; Nielsen & Randall, 2013), with each also acknowledging Johns' (2006) differentiation between 'omnibus' and 'discrete' contexts. Omnibus context refers to the backdrop and prevailing conditions in which the intervention takes place: e.g. the participants, the nature of the organisation, the driving forces behind it (Nielsen & Abildgaard, 2013); in other words, *who, where, when,* and *why* (Johns, 2006). Meanwhile, the discrete context has been operationalised in process evaluation research as the events, actions, or changes, occurring during the intervention process (Nielsen & Randall, 2013); for example, organisational changes, the introduction of conflicting initiatives, or changes to the economic or competitive environment (Nielsen & Randall, 2013)..

The larger the research window, the more time there is for unexpected occurrences and other extraneous variables to threaten the efficacy or erode the validity of even the most carefully designed study. Montano et al. (2014) also underline the failure to account for many of these potential confounders (e.g. Dahl-Jørgensen & Saksvik, 2005; Logan & Ganster, 2005). Studies such as Theorell et al. (2001) illustrate the lack of control researchers have regarding extraneous factors: during the period of their management-directed intervention, the organisation independently rolled-out three additional organisational-level initiatives aimed at

altering various aspects of the psychosocial environment. Understandably, this made it difficult for the researchers to determine the impact of their intervention, which – at face value – appeared moderately supportive across a range of subjective psychosocial measures and serum cortisol levels.

Longitudinal associations between organisational change and lower levels of psychological well-being have been reported by a number of studies (e.g. Bamberger et al., 2012; Dahl, 2011; Ferrie, Shipley, Marmot, Stansfeld, & Smith, 1998), and – according to the literature – both the pace and ubiquitousness of these changes have grown in recent decades (Lindorff, Worrall, & Cooper, 2011; Worrall, Cooper, & Campbell, 2000). Given the high estimated 'failure rates' of organisational change attempts (Beer & Nohria, 2000), maybe the organisations themselves do not emerge well from this either. However, in addition to the challenges of change for organisations and employees, there is another innocent victim in all this: the researcher. Because change appears to be constant – including major events, such as restructuring, mergers, downsizing and leadership changes (Andersen & Westgaard, 2013; Olsen et al., 2008; Petterson et al., 2006) – even the most rigorous, controlled, study designs can end up being confounded by them.

Olsen et al's (2008), longitudinal examination of a number of organisations, over three-to-five years, suggest it is more likely than not that major organisational changes will take place over the course of a long-term research project. The use of a similar timescale in organisational-level intervention research would perhaps satisfy calls for more longitudinal studies, but clearly opens the window for more confounding factors. Even over shorter periods, major change appears to be inescapable: in every single year of Andersen and Westgaard (2013)

seven-year intervention study, they noted at least one occurrence of a merger, restructure or leadership change. The organisational-level work-environment intervention they were studying appeared to yield rather disappointing results if taken at face value. However, in Olsen et al's (2008) study, thanks to their documentation of these changes, they were at least able to theorise that these constant changes and rationalisations were responsible and negated the effects of the intervention. The uncertainty, job insecurity and increases in workload that may stem from organisational 'rationalisation' measures (Näswall, Sverke, & Hellgren, 2005) cannot be ignored. Restructuring initiatives have cast a similar shadow across several other studies, (e.g. Landsbergis & Vivona-Vaughan, 1995; Mikkélsen & Saksvik, 1999; Mikkélsen et al., 2000) and further evidence for their effects is provided by Bambra et al. (2009), who report that the only participatory interventions with negative findings in their review were both subject to downsizing programmes.

Pawson and Tilley (1997), in particular, forcefully assert that lack of consideration of pre-existing and enduring conditions surrounding intervention programs is '*one of the great omissions of evaluation research*' (p.70). Documentation and reporting of such factors has been urged in order to provide some context for results (Martin et al., 2009; Semmer, 2006). In fact, it is argued here that this should also be done even in the event there are no major changes over the course of a study – because this too may be instructive; for example there was no mention of any changes or issues in Reynolds (1997) study, despite describing the aim of their article as being "*to examine the problems of implementing preventative stress management strategies*" (p.95). The study found that an organisational intervention to improve communication, participation and control yielded no effect. The study reported no

limitations, so in the absence of reference to any organisational or implementation issues, one must conclude it was simply ineffective – which may be the case – but explicitly reporting a lack of organisational changes, too, would help to rule out this potential confounding variable.

The effects of organisational change have been felt in numerous studies; a telling example is provided by Petterson and Arnetz (1998) whose evaluation of an intervention evaluation was hamstrung by the announcement of 20% cuts to staffing levels immediately prior to their follow-up survey. Uncertainty and job insecurity are commonly associated with detrimental effects on psychological well-being (De Witte, 1999), so the announcement was a serious, and ill-timed confounding variable; psychological well-being dropped at follow-up. This is a case in point, where the headline results appear disappointing regarding the benefits of preventative strategies, yet closer examination can be instructive. In fact, Petterson and Arnetz's analysis actually showed departments that indicated higher levels of participation and positive perceptions of the intervention process did not show the same decrements in the perceived psychosocial environment in comparison with those reporting lower involvement.

Similar findings from DeJoy et al. (2010) suggested an organisation-wide participatory intervention had very little effect. Indeed, the prevailing pattern was negative. However, the intervention took place against a backdrop of organisational turbulence not present at baseline, featuring recession, 'severe competitive pressures' and 'abrupt transition in top corporate leadership'. Their use of control groups allowed them to identify an apparent buffering effect against these in the intervention group, with a consistent pattern of superior (or more accurately, less poor) outcomes across the many measures they assessed (e.g. organisational

support, role clarity, and job satisfaction). Perceived job security declined similarly in both groups.

Cynicism about changes

Mack, Nelson, and Quick (1998) highlight the reciprocal nature of organisational change, in that changes affect the employee in some way, while the employee's response – be it passive, active, accepting, or resisting (Oreg, Vakola, & Armenakis, 2011) – will likely impact on the outcome of such changes. This may offer further insight into the equivocal results of organisational level interventions, with the implication that positive outcomes may have been masked by more negative reactions from those who may have felt less amenable to the changes. The need to untangle some of these relationships echoes the calls of Pawson and Tilley, for more consideration of pre-existing 'omnibus' contextual factors. For example, Tvedt and Saksvik (2012) propose that readiness for change is an important, yet rarely measured, factor in this. Wanous, Reichers, and Austin (2000) suggest that cynicism about organisational change is a particularly crucial element, echoed by Biron and Karanika-Murray (2014) as "*failed interventions may have a detrimental effect on people's willingness to participate in future intervention activities*" (p.91). However, such issues may be mitigated, as shown by the previous sections discussing the importance of participation and communication.

Summary of key findings & implications for research

An earlier portion of the chapter summarised the aggregated evidence from reviews and meta-analyses, and although their findings are not wholly unsupportive of preventative approaches they are weak when considering the logic of prevention versus 'cure'. However, looking

more closely at the primary research there are evident reasons and questions that require further exploration. 'Success' factors have emerged from the small, but growing, evidence-base, although some of these are clearer than others. Assessing the needs of the organisation and tailoring interventions to the setting may be carried out using steps such as those suggested by Kompier et al. (1998) and the HSE, for example. Others, such as communication and participation, may be more subjective and be based on the practicalities of the setting, but the fact they have been identified as important factors at least allows organisations and practitioners to explicitly consider them when planning their own interventions. There are likely to be consequences if they are not (e.g. Greenberg, 1990).

The latter part of the chapter raised a number of practical and methodological issues that may also be influential in the current state of the evidence; issues that have not always been considered when interpreting the findings. For example, the impact of study design criteria in the van der Klink et al. (2001) and Richardson and Rothstein (2008) meta-analyses. This, alongside growing evidence of the harmful effect of psychological ill-health to both individuals and business, provides grounds for further investigation of preventative approaches. The evidence is currently based on a relatively small number of studies in a field beset by methodological challenges. However, research has been increasing (LaMontagne et al, 2007), albeit slowly, and there is certainly evidence that these can be effective in improving the psychological health of employees in the longer-term.

This chapter has discussed primary intervention research from a diverse range of studies, drawing together a number of key factors in their success, as well as some less well-heralded factors that may influence outcomes of even the most well-intentioned and well-implemented

interventions. Documenting and reporting these fulfils an important function, in allowing other researchers and practitioners to look inside 'the black box' (Nielsen & Randall, 2013) and allow more appropriate conclusions to be drawn from either successful or disappointing interventions.

Some of the elements discussed previously have been identified as being largely absent from research in this context: i.e. individual differences, such as employees' belief in their employer's attempts to make future changes, perhaps borne of previous disappointments (Bamberger et al., 2012; Bond, Flaxman, & Bunce, 2008; Wanous et al., 2000). There is also a need to consider extraneous external factors and a particularly large and important gap regarding the evaluation of the implementation of interventions and its relationship to outcomes (Egan et al., 2007; Murta et al., 2007; Randall et al., 2005). Murta et al. (2007) argue that research identifying the most effective intervention components is lacking; research needs to address contextual and implementation-related factors and to go beyond 'traditional' outcome-only evaluation (Biron et al., 2012a). Montano et al. (2014) are unequivocal, in their systematic review of interventions to improve employee health: "*careful process evaluation should be a mandatory part of any intervention trial*" (p.6). The mixed findings in this domain have been echoed in many others (e.g. public health, criminal justice, education) and at least some of this can be ascribed to the limitations of relying on outcome-focused, controlled experimental approaches (Pawson & Tilley, 1997). Research needs to do more than ask '*does* it work*?*' and contribute to understanding some of the factors and conditions that both hinder and facilitate preventative approaches that address the psychosocial environment (Biron & Karanika-Murray, 2014; Nielsen & Abildgaard, 2013; Nielsen &

Randall, 2013). The methodology chapter describes how the present study addresses some of these issues (also see table 3).

Table 3: Summary of practical & methodological issues & their role in the present study

Methodological issue	How addressed by the present research
Intervention/ implementation quality	• A follow-up survey includes process evaluation measures to assess employee exposure to intervention(s) and perceived quality
Study design	• Discussed in more detail in the following methodology chapter, but a number of ways of maximising the strength of the single-group pre/post-intervention study design have been considered
Timescale	• Previous research suggests 6-12 months may be sufficient to see some changes as a result of interventions, and the present research takes place over a 14-month period
Extraneous/ contextual factors	• While not all threats to validity can be addressed, contextual factors were documented throughout • Individual differences – not measured directly, but individuals' pre/post intervention surveys are to be linked to account for this • Cynicism about attempted changes may stem from previous negative experiences and affect engagement with subsequent organisational changes: this is measured at baseline to assess its relationship to intervention involvement and perceptions of intervention activity

Process evaluation framework

The present study uses the success factors and methodological issues discussed in this chapter as a foundation for the approach taken and the research design (summarised in table 2 & table 3) to indicate how these factors have influenced the design of this study.   These are evaluated in this thesis in relation to a recently developed process evaluation framework by Nielsen and Abildgaard (2013).

As awareness of the importance of process evaluation has grown, a number of frameworks have been advanced to provide guidance about the factors that should be considered (e.g. Nielsen & Randall, 2013) and how they might integrate with established stress-management

cycles (e.g. Nielsen & Abildgaard, 2013). While Nielsen and Randall (2013) provide a particularly comprehensive framework, it is recognised by those authors and Nielsen and Abildgaard (2013) that individual studies are unlikely to be able to cover all potential process-related factors, and therefore some focus is necessary. Nielsen and Abildgaard's (2013) framework provides a pragmatic approach to process evaluation that closely parallels stepwise approaches to intervention design and implementation (e.g. Cox, Griffiths, & Rial-González, 2000; HSE, 2007; Kompier et al., 1998) by breaking the process and evaluation into discrete phases; 1) initiation, 2) screening, 3) action planning, 4) implementation, and 5) effect evaluation.

Nielsen and Abildgaard propose that each stage can be considered as the outcome of the one before and as such, they advocate that each stage is evaluated separately '*to detect how the decisions made and actions taken at one phase influence subsequent phases*' (p.282). Nielsen and Abildgaard's framework therefore acknowledges Cox, Karanika, Griffiths, and Houdmont (2007), who highlight the need to locate the causes of 'failure' so interventions can be modified, rather than unnecessarily discarded. Their framework also acknowledges the role of the influential factors discussed during this literature review, such as context, and employees/stakeholder 'mental models' (e.g. 'readiness for change', motivation, perceptions of intervention activity) that can influence behaviours towards the intervention. However, the principal feature of the framework of interest here is the concept of each phase being considered as an outcome of the previous phase.

In viewing the process and phases in this way, the present thesis builds up a 'programme theory'; in other words, how the intervention is *supposed* to work (Biron, 2012). However,

within a complex and dynamic environment where the specific interventions themselves are to be developed as *part of* the intervention project this 'programme theory' can be applied to the project as a whole and provides a simple model of how the phases contribute to each other and the overall process. Therefore each phase could be said to have particular 'goals', and evaluating how effectively these were met should go some way to pinpointing more precisely where the process may have been faulty, or particularly effective. Consequently, this study focuses on one or two questions for each phase, while also incorporating some of the most widely raised factors drawn from the research described in this literature review.

The Nielsen and Abildgaard framework (figure 1) begins with the 'initiation' phase (chapter four of this thesis); this phase concerns the project background and preparation for the baseline assessment and influences the 'reach' and effectiveness of this assessment (the 'screening' phase; chapter five). The accuracy of findings from the baseline assessment then influence the next stages, where decisions are taken on how those findings are translated into plans and actions ('action planning' & 'implementation' phase; chapter six): more accurate baseline data should enable more effective tailoring of actions to the needs of the workforce. Logically, if interventions are appropriately targeted and implemented, this in turn is likely to manifest itself in the final phase - the 'effect evaluation' (chapter seven); i.e. assessing whether and how interventions were effective. This simplified outline of each phase is expanded on in each chapter, as are the main aims of each.

Figure 1 also indicates the role of 'change mechanisms' throughout the process; Nielsen and Abildgaard (2013) characterise these as the 'organisational actors' mental models and behaviours'. The latter refers to the decisions and actions of the 'organisational actors'; i.e.

the stakeholders - employees, management, and the steering group overseeing the process. Meanwhile, the 'mental models' referred to by Nielsen and Abildgaard's framework, in figure 1, is a broad heading that has been used to refer to a wide range of factors in the process evaluation literature (e.g. Havermans et al., 2016). Nielsen and Abildgaard (2013) are not prescriptive in asserting which of these process and contextual factors should be assessed at each phase, which Fridrich, Jenny, and Bauer (2015) suggest may make their framework too general and leave researchers too much scope for interpreting what should be measured, and where. Nielsen and Abildgaard recognise there are still questions in terms of exactly which process evaluation-related factors are most important. However, this literature review has identified several factors and issues implicated in previous research, so although the exact role of these factors cannot be known prior to the project they do represent a selection of the most commonly reported process and contextual issues from the literature. Consequently, these are used to focus the evaluation, alongside the five phases, but in line with the developing nature of this field of research, the study will also document other particularly important factors that emerge during the course of the project.
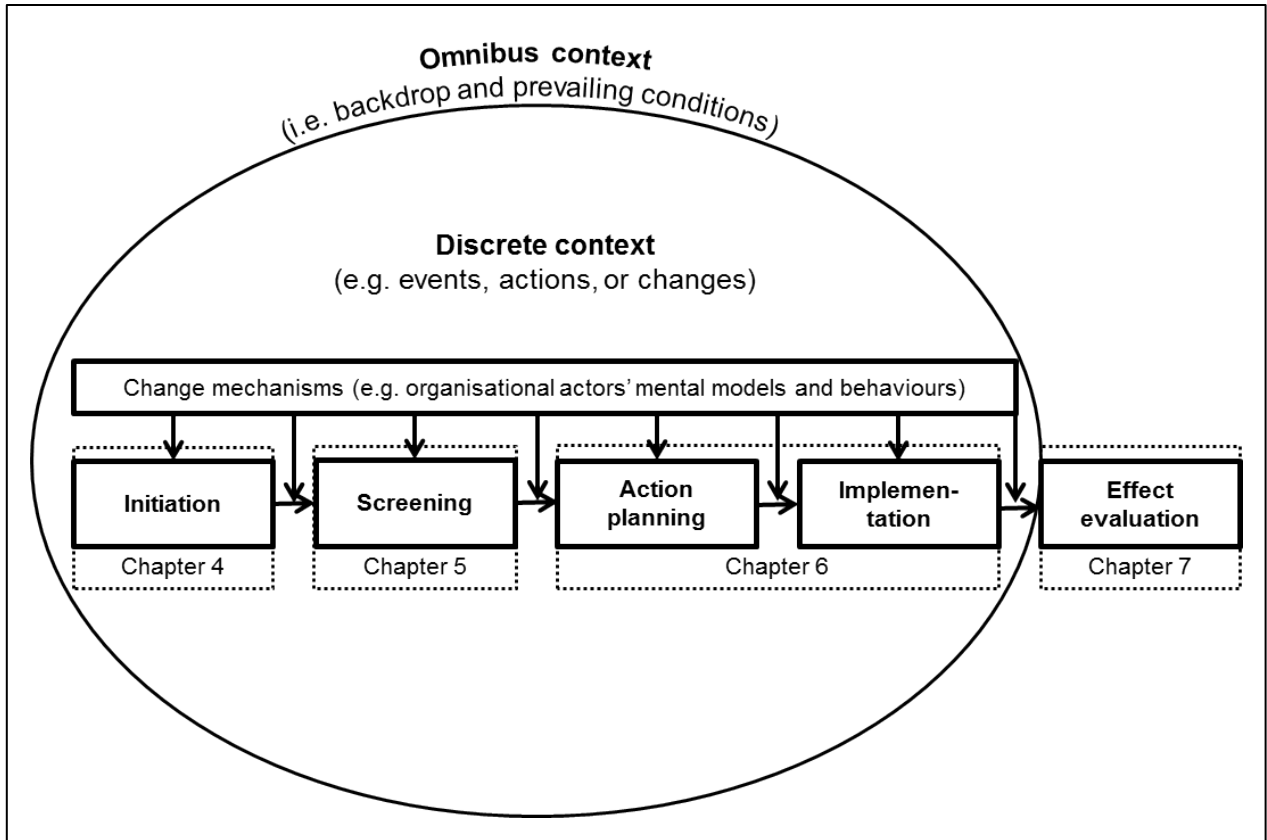
Figure 1: Outline process evaluation framework and thesis structure
(figure adapted from Nielsen & Abildgaard, 2013; p.281)

Figure 1 illustrates the overall framework, and how it fits with the structure of the thesis, while table 4 summarises the main focus of each phase and chapter. The final chapter, the discussion, begins by evaluating the process as a whole, then draws together and discusses the main factors that influenced the process. The second half of the discussion chapter then discusses the research from a methodological perspective and opportunities for future research.

Table 4: Overview of thesis process evaluation structure

Phase	Main aim: project	Main focus: chapter/research
Initiation (chapter 4)	• Planning and implementation of baseline assessment.	• Detailing the context; initiation and motivation for the project • The 'reach' of the baseline assessment (e.g. survey response rate)
Screening (chapter 5)	• Identifying the priority stress-risk factors to assist with planning and implementation of intervention activity.	• The findings from the baseline stress-risk assessment • Describing how key findings were arrived at and their accuracy
Action planning & Implementation (chapter 6)	• Translation of findings from the previous phase into intervention plans • Implementing planned intervention activities	• The extent to which interventions addressed the needs identified by the baseline assessment • How effectively interventions were implemented – specifically, the 'reach' and perceived quality of interventions • Organisational events occurring during the process
Effect evaluation (chapter 7)	• Evaluating the outcome of the intervention activity	• Analysis of changes from baseline • The effect of employees exposure to interventions and their perceived quality • Assessing relationships between employees' baseline levels of cynicism about organisational changes and employees' engagement with intervention activity

Thesis aims and objectives

The present study takes place in PublicOrg, a large UK-based public sector organisation undertaking an organisational-level intervention(s) project aimed at improving psychosocial conditions for employees. In line with the process evaluation literature, the research aims to do more than just answer whether or not it 'worked' – it intends to evaluate the role of the influential factors, identified previously, throughout the process, both in terms of outcomes, and their implementation.

To achieve this, the study follows recommendations from process evaluation research to document the context and process during the course of the project (Johns, 2006; Montano et al., 2014; Murta et al., 2007; Nielsen & Randall, 2013), using Nielsen and Abildgaard's (2013) framework to guide evaluation. Data is collected before and after intervention implementation, and this begins with an organisation-wide baseline survey to assess the key psychosocial stress-risk factors and levels of psychological health of employees within PublicOrg. This provides both a reference point from which to evaluate subsequent progress, as well as informing PublicOrg's priorities and the development of appropriate organisational interventions. The survey is based around the HSE's MSI questionnaire – developed by the HSE expressly for the purposes of identifying key psychosocial work stressors. PublicOrg's response to the findings are documented and evaluated using the findings from the follow-up survey, which also incorporates process measures to assess the specific effects of employees' exposure to interventions and perceptions of them.

Therefore, this study contributes in a number of important ways. At the most fundamental level, it simply answers many calls for primary intervention research to add to the small but growing evidence-base. This is important, but it also goes beyond that by incorporating context and process evaluation measures from the start of the project, such as employees' cynicism about organisational change, with the addition of process-related measures at follow-up. Without a better understanding of how preventative approaches work (or not), organisations may waste resources on ineffective methods or, worse still, they may not try at all. Previous research has identified potentially influential factors in the efficacy of interventions, but Nielsen and Abildgaard's (2013) framework further enables evaluation to

locate where in the process these factors had their effects. Few studies have tested this recently developed evaluation framework, and none on the scale of the present thesis.

For practitioners, the research also aims to add value by basing its approach on freely available resources where possible. For example, the MSI, used here, was developed by the HSE to help employers to assess with stress-risk assessment, but few studies have attempted to assess its practical utility. It is recognised that organisations may not be able to afford consultants or diagnostic instruments, so the use of these is intended to make it easier for practitioners and employers to access and employ the information that has guided the process. Furthermore, recognising the challenges of organisational-level intervention research, a range of measures have been taken to strengthen the design within the limits of a single-group pre/post intervention design; discussed in the following methodology chapter.

CHAPTER THREE: METHODOLOGY AND MEASURES

General approach

This chapter provides the rationale for the approach taken and the measures used; specific information on the analysis of data are provided in the relevant chapters. The literature review highlighted that the efficacy of organisational-level interventions can be affected by many factors, and thus the need for studies to address process and context. At the outset of the project, in response to the initial approach from the researcher, PublicOrg assembled a steering group, which included union representatives, to guide the intervention process. This is discussed in detail in the following chapter but raised here because the steering group influenced the selection of some measures that are described in this chapter.

The approach taken to the process evaluation links directly to the evidence discussed in the literature review, and was influenced by it. For example, consistent with recommendations to take a tailored approach it is not appropriate to predetermine the specific intervention content, which has implications for the way the project is evaluated and reported due to its dynamic and unfolding nature. Hence, a concurrent approach to process evaluation is taken (Nielsen & Abildgaard, 2013). Therefore, although the following chapters broadly follow the chronological order of the overall process, where it is relevant information/evidence collected at a later point in the process may be reported to illustrate points at an earlier stage. Similarly, some methodological details about the process are described where relevant across the related chapters; chiefly, these are elements that would be considered as the 'procedure' in an 'experimental' study if the researcher was responsible for the design and implementation of

interventions. This was not the case here and the researcher was primarily involved in an evaluative capacity, assessing the PublicOrg's own efforts to implement a preventative, organisational-level approach to improving psychosocial working conditions.

Research design

The study uses a pre/post intervention survey design, nested within Nielsen and Abildgaard's (2013) process evaluation framework to assess the impact of a set of preventative stress-management measures on the psychosocial conditions and psychological well-being of employees. Experiments, or quasi-experiments with control groups, are considered the most methodologically robust research design when attempting causal inference (Grant & Wall, 2009; Shadish et al., 2002). However, the challenges of obtaining control groups in real-world organisational settings are well-known (Edmondson & McManus, 2007; Griffiths, 1999; Murta et al., 2007) and are often unrealistic or unethical in this type of setting (Lipsey & Cordray, 2000; Maslach & Leiter, 2015; Shadish et al., 2002). Kristensen (2005; cited in, Biron, 2012, p. 165) affirms that strict experimental designs may be appropriate for simple, and well-defined interventions, but this is patently not the case in organisational-level interventions of this type. Moreover, even when control groups are used they may introduce unforeseen confounds; for example, the use of control groups and randomisation of 'treatments' is likely to differ from the usual organisational decision-making processes (Nabe-Nielsen et al., 2015). Meanwhile, 'contamination' between control and treatment groups – and even competition between them – may also lead to unexpected results (e.g. Nielsen et al., 2006). So, despite the status of experimental designs they are far from immune to issues, particularly in such complex and unpredictable environments.

However, the pre/post design employed here was for practical reasons: PublicOrg's understandable desire for interventions to be implemented across the whole organisation meant it was not possible to specify control groups – or even waitlist controls. Although uncontrolled designs have been criticised in terms of ascribing causality (Shadish et al., 2002; Spector, 2001), they can still provide valuable information in a field that has repeatedly called for more longitudinal research (Randall et al., 2005).

Data collection

The primary data collection instruments were two surveys, one at baseline (T1) and one at follow-up (T2). The data collected was predominantly quantitative, obtained via these surveys, using psychometrically well-validated measures. All quantitative analyses described in the thesis were conducted using SPSS version 20. The use of surveys had practical merits in this research setting, but– most importantly – was also appropriate to the research focus on organisational-level approaches, and the maturity of the research domain. Quantitative surveys are considered suitable for gathering of quantitative data in the assessment of well-established constructs that have reliable and valid indicators (Edmondson & McManus, 2007). While there is certainly debate regarding various stress-related constructs and their interaction (van der Doef & Maes, 1999), the constructs themselves are well-established and there are a many measurement instruments with extensive reliability and validity data (e.g. Cartwright & Cooper, 2002; Cooper, Sloan, & Williams, 1988; Cousins et al., 2004; Karasek et al., 1998).

Secondly, the research setting – particularly the size of the organisation, and therefore the size of the potential sample – also make the survey a practical data collection instrument to quantitatively assess potential intervention effects. Crucially, the survey also served as an

important component of the initial baseline stress-risk assessment (LaMontagne et al., 2007). It was therefore important to assess the relevance of the selected survey items and ease of completion. A draft version of the survey was shared with senior managers and union representatives on the steering group with the latter sharing the draft with a group of frontline employees, as per Randall, Nielsen, and Tvedt (2009). Some additional items were added as a result of this consultation (described subsequently in this chapter).

Nielsen and Randall (2012) also support surveys as a way of integrating quantitative measures of the implementation of interventions. Consequently, data from the surveys can also be used to understand as to how and why the intervention(s) was successful or not (e.g. Randall et al., 2005) and are particularly useful across large samples (Randall et al., 2009). Surveys are the most commonly used data collection instrument in the social sciences (Bryman, 2006), but as with any method there are issues that may afflict survey-based research: attempts to minimise some of these are discussed subsequently. However, the use of surveys here is appropriate to the topic, research focus, and the setting. Other sources of data were also used to inform the evaluation, and these are discussed further in the chapter; for example, researcher's notes from meetings, organisational documents, and communications from stakeholders.

Strengthening the design

In terms of research design, although the pre/post intervention design employed here has limitations (Cook & Campbell, 1979; Shadish et al., 2002), there is still much that can be done to strengthen them. One such enhancement is the use of process evaluation measures collected at follow-up to allocate participants to groups based on their exposure or perceptions of interventions; thus becoming an quasi-experimental adapted study design (as demonstrated

by Randall et al., 2005). Randall et al. (2005) found improvements for employees exposed to their interventions relative to those who were not. Their use of this design was illuminating and highlights the benefits of even the most rudimentary process evaluation (their study used a single item to assess exposure). This approach follows Semmer's (2006) plea to maximise the strength of 'uncontrolled' organisational research. It also addresses some of the threats to validity facing simple pre/post intervention designs, while also providing valuable information about the role of intervention implementation not ordinarily provided by research in this domain. A number of further steps have also been taken to address other potential weaknesses.

The adapted quasi-experimental design is possible via the linking of individuals' pre and post-intervention surveys, enabling repeated measures analysis. This confers several advantages compared with aggregated pre- and post-intervention data, as group level aggregated data may mask important and illuminating interactions (Theorell & Karasek, 1996). Moreover, given that personality traits are – by definition – relatively stable over long periods (e.g. Löckenhoff et al., 2008; Rantanen, Metsäpelto, Feldt, Pulkkinen, & Kokko, 2007), linking can account for individual differences, because each respondent serves as their own control. Studies without this component have noted difficulties accounting for the impact of potentially differing pre- and post-intervention samples on their results (e.g. Dollard & Gordon, 2014; Petterson et al., 2006), and the use of aggregated data requires different analyses with a loss of statistical power (Bedeian & Feild, 2002).

In relation to the reporting of statistical findings, significance levels (i.e. p-values) and effect sizes have long been a source of debate. For example, as sample size grows p-values go

quickly to zero (Lin, Lucas, & Shmueli, 2013) and there have been growing calls for effect sizes to be reported at the expense of significance testing (e.g. Cumming, 2014). Nonetheless, the latter are still widely used and so are included here, with effect sizes reported alongside to provide the reader with a sense of the magnitude of any effects. Regarding significance testing, Cohen (1990) suggests that ideally the number of dependent variables should be minimised to reduce the possibility of capitalising on chance, whereby more variables and tests increase the likelihood of significant findings based purely on the number of tests carried out. The large number of dependent variables in the current study is primarily due to the fact the key stress-risk factors at PublicOrg were unknown beforehand, and were to be determined only after the baseline study. Therefore, in line with Parkes and Sparkes (1998), their inclusion was intended to maximise the chances of having both pre- and post-intervention measures for variables that were most relevant in this setting. To account for this, for studies with multiple dependent variables it is recommended that the significance level be reduced to $p < .01$ for each, in order to mitigate the inflated experiment-wise risk of Type I error (Cohen, 1992, p. 156); i.e. false positive findings. Additionally, for the analyses assessing the potential effects of PublicOrg's interventions on the dependent variables, it is only those variables targeted by interventions that are discussed – unless otherwise stated (although all variables are reported in the relevant tables for the purposes of transparency).

This study uses participant self-generated identification codes (SGIC) to link their pre- and post-intervention surveys. This code was based on two questions: '*what day of the month is your birthday?*' and '*please provide the first three letters of your mother's first name*'. For example, if a respondent's birthday was 1st January, 1970 and their mother's first name was

Maud, their code would be *01mau*. Similar combinations of questions have been used in previous research (Yurek, Vasey, & Havens, 2008) that require stable identifiers, known to the participant but not the researcher. This information places a relatively low burden on participants to recall their code when prompted at the follow-up survey (Yurek et al., 2008), while avoiding asking for information that may compromise anonymity, such as employee ID numbers. Damrosch (1986) obtained almost perfect test-retest reliability with a more complex version of this technique (98.5% could be matched), while participants rated the method highly in terms of protecting their anonymity. However, this method is not perfect, with Schnell, Bachteler, and Reiher (2010) indicating that losses of 20-30% due to missing or incomplete data are not unusual. Nonetheless, the use of this approach is considered a practical compromise in this instance, given the need to balance research design and anonymity, and it has been supported even when collecting potentially sensitive data (e.g. Garvey Wilson et al., 2010).

The linking of pre- and post-intervention surveys was carried out manually by the researcher. Codes that matched were placed on the same row of the SPSS file to allow the repeated-measures analysis described in chapter seven. All codes that showed exact matches between T1 and T2 surveys were checked against the other demographic variables (e.g. gender, age) to ensure these were not false positives; for example, if the code matched but gender or age did not then the surveys were not linked.

Missing data

Survey data collection was predominantly electronic, via an online survey platform (BOS: https://www.onlinesurveys.ac.uk) that respondents accessed via a web-link. Paper copies

were also made available. The online survey 'forced' completion of the quantitative survey measures, meaning that respondents could not proceed onto the next page of the survey if they had missed answering any of the questions on a page (note: this 'forcing' did not apply to open-text questions or the SGIC, which were optional). Sample details are provided in the relevant sections, but for both survey administrations there was no missing data from surveys completed electronically (although employees who decided they did not wish to continue at any point could exit the survey if they wanted to and their data was therefore not recorded by the survey software). There were some missing responses from paper copies of the survey, but this represented a maximum of 1% missing data on a single variable, and so pairwise deletion was used to handle missing data. Limitations of this approach have been noted, but at this low level of missing data it was well within specified acceptable limits before missing data would be expected to introduce undue bias (Bennett, 2001; Schafer, 1999).

Common Method Variance

Common method variance (CMV) has been noted as a possible source of bias in self-report surveys (Podsakoff, MacKenzie, Jeong-Yeon, & Podsakoff, 2003). Briefly, CMV relates to the potential for inflated correlations between constructs measured using the same method (Meade, Watson, & Kroustalis, 2007). Although its impact has been indicated as relatively minor in organisational research (Meade et al., 2007; Spector, 2006) it is preferable to consider and address it in the design, with preventative steps favoured over post hoc statistical approaches (Conway & Lance, 2010). Therefore, a number of steps recommended by Podsakoff et al. (2003) and Conway and Lance (2010) were taken in the design and implementation of the survey: -

- Communicating the anonymity and confidentiality of participant responses (it was also emphasised that the survey was administered by the university rather than their employer)
- Clearly communicating that there are no 'right or wrong' answers to questions.
- The use of verbal, rather than numerical, labels to mark response options.
- Separating predictor and criterion variables.

Another recommendation – randomising the order of questions – was considered but not possible due to the limitations of the online survey platform used in the research. Additionally, after data was collected, Harman's single-factor test (Harman, 1976) was conducted for both T1 and T2 surveys to test for the presence of CMV; this showed that in both cases there was no general factor responsible for the majority of variance and therefore CMV was unlikely to be problematic here.

Outline and rationale for measures

This survey includes a set of measures incorporating psychosocial stress-risk factors, psychological well-being, and process-related indicators to assess some of the expected mechanisms by which potential changes to psychosocial conditions may occur.

Psychosocial stress-risk factors are measured using the HSE's MSI, used to identify potential stress-risk factors present in the workplace. The MSI is being used as a diagnostic tool by the organisation in this study as well as a measure of potential intervention effects. Ultimately, the longer-term aim of the interventions studied here is to improve the psychological well-being of employees so measures to assess this are also included; general psychological health is measured by the General Health Questionnaire (GHQ-12; Goldberg, 1972), while the Job-

Related-Well-being scale (JRWB; Warr, 1990) is utilised as a more specific work-related measure.

The time available for the project also influenced the selection of some measures. The lack of theoretical basis for the selection of research timescales has been criticised (e.g. Zapf et al., 1996) and it is acknowledged that here it was largely based on what was feasible for PublicOrg. However, a range of additional measures are also incorporated within the present research to account for the uncertainty in the literature over how quickly interventions may have their effects at different levels; perceptions of psychosocial job characteristics, for example, should be more sensitive indicators of intervention impact and show any effects sooner than well-being-related outcomes (DeJoy et al., 2010; Golembiewski, Hilles, & Daly, 1987; Logan & Ganster, 2005; Taris & Kompier, 2014).   Further measures assessing elements of context, such as employee cynicism about organisational changes, as well process-related factors were also included.

Survey measures

Table 5: Outline of measures included in survey

	Measure (number of items)
Psychosocial stress-risk factors	• HSE Management Standards Indicator (35)
Additional proximal/context variables	• Perceived Organisational Support (7) • Cynicism About Organisational Change (4) • Psychosocial Safety Climate (4) • Job insecurity (2) • Confidence/willingness to discuss mental health issues (4)
Intermediate measures of intervention outcome	• Job stress (1) • Job satisfaction (3)
Distal outcome measures	• Job-related well-being (12) • Context-free psychological health: GHQ-12 (12)
Open-text questions	• 'What is the most stressful part of your job?' • 'What could [PublicOrg] do to improve staff well-being?' • 'What do [PublicOrg] currently do well regarding staff well-being?' • **T2 only** 'Do you have any comments about the results of the last survey or the actions taken by PublicOrg since the last survey?' • **T2 only** 'If you attended a mental health awareness session do you have any further comments, or example of how it has been useful?'
Process evaluation measure (T2 only)	• 'Exposure' to intervention(s) • Perceived intervention quality

Psychosocial stress risk factors

The Health and Safety Executive Management Standards Indicator (MSI)

The core measure used in the baseline assessment to gauge employee perceptions of the psychosocial work environment was the MSI, which includes 35 items covering seven key psychosocial stress-risk areas drawn from the literature (see table 6 for subscales and sample items). To aid clarity, when these subscales are referred to in the text they are italicised to make it clear it is the subscale itself, rather than the general concept, that is being referred to. E.g. *change* when discussing the MSI subscale, but no italics if discussing change as a more

general stressor (e.g. organisational change). This also applies to *job satisfaction*, *job stress*, and *job insecurity* discussed subsequently.

Table 6: HSE Management Standards Indicator (MSI) subscales & sample items

HSE MSI subscale (# of items)	Sample item
Demands (8 items)	I have to neglect some tasks because I have too much to do
Control (6)	I can decide when to take a break
Manager support (5)	I am given supportive feedback on the work I do
Peer support (4)	If work gets difficult, my colleagues will help me
Relationships (4)	Relationships at work are strained
Role (5)	I am clear what is expected of me at work
Change (3)	Staff are always consulted about change at work

Of the 35 MSI items, 23 use the response anchors '1=never' to '5=always', and 12 items using 1 = 'strongly disagree' to 5 = 'strongly agree'. The MSI contains both positively and negatively phrased items, with the latter recoded so higher scores, in all cases, reflect more positive perceptions of that aspect of the psychosocial environment; the mean score of items on each subscale is then computed as representing perceptions on that domain.

The need to base interventions on the actual needs of the site or organisation has been discussed previously (Jordan et al., 2003; Kompier et al., 1998; van der Hek & Plomp, 1997) and the MSI is preferred for this task here for a number of reasons. Firstly, the research required a psychometrically sound measure and the MSI has extensive data to support it, from a wide range of occupational settings (Houdmont, Kerr, & Randall, 2012; Kerr et al., 2009a; Marcatto, Colautti, Larese Filon, Luis, & Ferrante, 2014; Ravalier et al., 2013). Nonetheless, there are other widely-used measures, also with empirical support (e.g. ASSET, Cartwright & Cooper, 2002; Occupational Stress Index, Cooper et al., 1988; COPSOQ, Kristensen, 2001),

but the relative brevity of the MSI was important in the present context. Furthermore, the NICE guidance (PH22, 2009) explicitly identifies the MSI as a suggested diagnostic tool for assessing stress risk factors. A further important consideration was ensuring as much of the process as possible was sustainable for the organisation at the end of the project; therefore cost and availability was important. The MSI is freely available to organisations and there are extensive resources to support employers on the HSE website (www.hse.gov.uk/stress).

The MSI was developed by the HSE as part of a nationwide, long-term strategy to support employers to identify stress-related risks to employee psychological health, in response to an apparent lack of valid, reliable measures (Rick, Briner, Daniels, Perryman, & Guppy, 2001). It is the result of an extensive and well-documented development process detailing its initial development, (e.g. Cousins et al., 2004; Mackay et al., 2004), subsequent refinements (e.g. Tyers, Broughton, Denvir, Wilson, & O'Regan, 2009), and psychometric properties (e.g. Edwards & Webster, 2012; Edwards et al., 2008; Guidi et al., 2012; Houdmont, Kerr, & Randall, 2012). Edwards and Webster's (2012) analysis of data from 67,347 respondents in the UK supported the seven-factor model, and found reliabilities for the seven subscales of between .81 and .89 (*demands*, α = .85; *control*, α = .83; *manager support* α = .89; *peer support* α = .82; *relationships*, α = .82; *role* α = .82; *change*, α = .81). These reliabilities are also in line with others (e.g. Bevan et al., 2010; Edwards, et al., 2008; Kinman and Court, 2010). The MSI's validity has also been supported, with studies finding evidence of convergent (Guidi et al., 2012), discriminant (e.g. Edwards et al., 2008), concurrent (e.g. Kerr et al., 2009a; Marcatto et al., 2014), and face validity (Kompier, 2004). Meanwhile, from a practical viewpoint, Kinman and Court (2009) recommend using MSI ahead of alternative

measures, to enable more systematic evaluation of stressors and allow benchmarking to facilitate comparison and identification of interim and longer-term targets. Based on early discussions with representatives from PublicOrg, this was a noted as a particularly useful feature for them.

Psychological health and well-being

The stated aim of many organisational-level interventions is the improvement of employee well-being/psychological health (e.g. Nielsen & Randall, 2012; Petterson & Arnetz, 1998; Sørensen & Holman, 2014; Sun et al., 2013). Ultimately, that was also the aim here so it is relevant to measure this, although it was recognised that this may occur over a longer period than that allowed by the current study (e.g. Kompier et al., 1998); it was also anticipated that implementation of interventions would not occur immediately after the baseline survey. While the MSI should help with identification of some of the key potential risk areas, Rick et al. (2001) caution against measuring only the potential hazards and inferring subsequent psychosocial harm (or vice versa). They instead advocate that organisations measure both.

Two measures of psychological 'well-being' were used in the present study: the 12-item version of the General Health Questionnaire (GHQ-12; Goldberg, 1972) - a context-free measure of psychological health; and the other, a work-specific measure of well-being – Warr's (1990) Job-related Well-being scale (JRWB). Previous research has indicated that general psychological well-being, or lack of, may take time to respond to preventative stress-management approaches at work, although it is unclear exactly how much time. Therefore, given the short-to-medium term nature of the present research, it is appropriate to also include a more proximal, domain-specific, measure. Warr (2012) affirms that job-specific well-being

is more responsive to the workplace context, therefore also allows a more sensitive and immediate measure of potential changes that may – in the longer-term – lead to changes in more general well-being.

The General Health Questionnaire (GHQ-12)

The GHQ-12 is a self-report screening tool for identifying minor psychiatric disorders in the general population (Wall et al., 1997), and asks respondents to consider their general health over the previous month in relation to a stem question ('*In the previous month, have you…*') and 12 statements; e.g. '*…been feeling reasonably happy, all things considered*?'. There are two alternative methods for scoring: the GHQ-method and Likert-method (Banks et al., 1980). In both approaches, the 12 items are scored on a four-point scale; for the GHQ-method of scoring, respondents score '0' if endorsing the first two categories, or '1' for the third or fourth (indicating the presence or absence of a symptom); meanwhile, as the name suggests, the Likert-method simply scores responses either 0, 1, 2, or 3. The Likert-method is generally preferable in organisational research as it has been shown to be less susceptible to skewed distributions and uses more of the available information, making it more appropriate for the parametric analysis proposed here (Stride, Wall, & Catley, 2007). However, the GHQ-method – with scores of four and above considered indicative of mild-to-moderate mental health problems (Stride et al., 2007) – is used to detect 'cases' so is used to show the prevalence of potential mental health problems in the sample. For both scoring methods, higher scores indicate poorer psychological health.

The rationale for focusing on stress-management has already been outlined previously, hence the use of the GHQ-12 which, although predominantly used to detect psychiatric morbidity,

has been well-validated in the general population and in the workplace. Indeed, the 12-item version of the General Health Questionnaire (GHQ-12) is one of the most widely employed measures of psychological well-being in the organisational psychology literature (Guidi et al., 2012) particularly in stress-related research. Numerous psychometrically acceptable alternative measures do exist, such as the Patient Health Questionnaire (PHQ) or recently developed WHO-5, but the GHQ's ubiquity in organisational research makes it particularly useful for benchmarking in this setting in comparison with alternative measures. For example, all seven eligible studies in Nieuwenhuijsen, Bruinvels, and Frings-Dresen's (2010) systematic review of the psychosocial work environment and stress-related disorders employed the GHQ in some form. Similarly, Lenderink et al's. (2012) review of self-reported illness at work included 33 studies utilising the GHQ in comparison with two studies using the PHQ. However, citations and popularity alone are no guarantees of psychometric quality (e.g. Levenson, 1981), but its reliability has been well-established ($\alpha = .89$, De Witte et al., 2010; $\alpha = .82$ to $.86$, Goldberg et al., 1997; $\alpha = .92$, Houdmont et al., 2013). The GHQ has also been extensively validated in organisational settings (Stride et al., 2007), including in relation to the HSE scales used here (Guidi et al., 2012; Houdmont et al., 2013; Kazi & Haslam, 2013).

Job-related well-being (JRWB)

The JRWB scale comprises a list of 12 adjectives, corresponding to a range of affective states, that respondents are asked to consider and indicate how often *their job* has made them feel that way in the last few weeks (from 1 = *never*, to 5 = *all the time*). Example adjectives include 'tense', 'enthusiastic', 'contented' and 'gloomy'. Scores are summed and calculated

so that higher scores indicate more positive job-related well-being (and this has demonstrated good reliability; α = .91; Goncalves & Neves, 2011; Kalliath, O'Driscoll, & Brough, 2004).

Intermediate measures

Meanwhile, intermediate measures, such as *job satisfaction* and *job stress*, for example, have been indicated as antecedent to well-being (DeJoy et al., 2010).

Job stress

Perceived *job stress* could be expected to act as an indicator that would follow changes to working conditions – such as those measured by the MSI – and be a precursor to changes in psychological well-being (Psychosocial Working Conditions in Great Britain, 2010). Briner, Harris, and Daniels (2004) also argue that subjective perceptions of stress, and not just potential psychosocial stressors, should be acknowledged in this type of research; this is also in keeping with the view of stressors, stress (process) and strain (i.e. psychological well-being), as separate, but interlinked parts of the process. A single-item measure of *job stress* was used due to constraints regarding the length of the questionnaire. This item ('*In general, how do you find your job*?'), uses a five-point response format, ranging from '*not at all stressful*' to '*extremely stressful*', and has been widely used in previous research (Psychosocial Working Conditions in Great Britain, 2010; Smith et al., 2000).

While single-item measures do not capture the multifaceted nature of constructs such as 'stress', they have been supported in organisational research due to their expediency (Borg & Elizur, 1992); more importantly, they have also been shown to be valid and reliable indicators (e.g. Elo, Leppänen, & Jahkola, 2003; Houdmont, Kerr, & Addley, 2012).

Job satisfaction

Job satisfaction was measured using a 3-item scale (Cammann, Fichman, Jenkins, & Klesh, 1983), including items such as '*all in all, I am satisfied with my job*', rated on a five-point response scale ranging from 'strongly disagree' to 'strongly agree'. The scale has shown good reliability (α = .84, Bowling & Hammond, 2008; α = .84, Saks, 2006) and validity (Chen & Spector, 1991).

Additional proximal and context measures

Psychosocial Safety Climate (PSC)

Psychosocial Safety Climate (PSC) has been proposed as a measure of the presence of positive factors associated with intervention success, as it covers some of the key elements described in the literature review: management support and involvement/participation in stress-management related activity. The four-item measure of PSC used here has demonstrated good reliability (α = .81; Dollard & Bakker, 2010), and correlates strongly with the 12-item PSC scale on which it is based (r = .78). A sample item is '*senior management show support for stress prevention through involvement and commitment*' assessed on a five-point response scale, from 'strongly disagree' to 'strongly agree'. Dollard and Karasek (2010) suggest the measure could be considered as an 'action exposure scale', and it is included here as a measure of the general culture around stress management, as well as a proximal measure of any potential intervention effects.

Perceived Organisational Support (POS)

A seven-item version of Rhoades and Eisenberger's Perceived Organisational Support (POS) scale was used to assess changes in employee perceptions of recognition, being listened to,

and cared about by the organisation. The process and rationale for the inclusion of these POS items are described in the following chapter, but they were added in response to consultation on a draft version of the survey with a small group of PublicOrg staff. Pignata and Winefield (2013) also suggest that POS may also be indicative of successful interventions, as employees would see them as evidence of supportive organisational practices.

The full POS scale includes 36 items, but Rhoades and Eisenberger (2002) affirm that the POS scale's unidimensionality and high reliability mean shorter versions are appropriate when brevity is required. Shorter versions have been developed from highest loading items on the full scale, and subsequently validated (Eisenberger, Fasolo, & Davis-LaMastro, 1990; Wayne, Shore, & Liden, 1997); for the present study, the seven questions addressing the employees' request were also among these highest loading items, and similar to Bishop, Scott, Goldsby, and Cropanzano (2005), who reported reliabilities of $\alpha = .87$ to .93. An example item is '*my employer really cares about my well-being*' with responses scored on a five-point scale ('strongly agree' to 'strongly disagree').

Cynicism about organisational change (CAOC)

Based on previous research, a further factor was identified that may affect the process. Cynicism about organisational change (COAC) was measured using the four-item pessimism subscale of Wanous et al's (2000) CAOC scale. Cynicism has been identified as a potentially important variable in levels of engagement with change initiatives; Wanous et al (2000) define CAOC as a '*pessimistic viewpoint about change efforts being successful because those responsible for making change are blamed for being unmotivated, incompetent, or both*'. Failures or dissatisfaction with previous attempts to implement changes may lead to cynicism

about future attempts (Graveling et al., 2008), and Wanous and colleagues suggest that when cynicism is prevalent within an organisation, even the most sincere and skilful attempts to implement changes are likely to flounder: a self-fulfilling prophecy. Therefore, it could be theorised to influence employees' perceptions or 'engagement' with interventions and their subsequent outcomes. Albrecht (2003) reports reliability for the four-item 'pessimism' subscale of α = .92 in a study also based in the public sector. Items include '*attempts to make things better around here will not produce good results*', rated on a five-point scale from 'strongly disagree' to 'strongly agree' (higher scores indicate greater 'cynicism').

Job insecurity

Landsbergis and Vivona-Vaughan (1995) note the impact of the wider economic environment on job security, which in turn may influence implementation and responses to stress-management interventions. Similarly, job security has been identified as a potential stressor in the workplace (De Witte et al., 2010), the effects of which grow stronger with length of exposure (Heaney, Israel, & House, 1994), as well as predicting general life satisfaction (Silla, De Cuyper, Gracia, Peiró, & De Witte, 2009). In light of the economic context surrounding the organisation, this was considered to be a potentially relevant extraneous variable. This context is discussed further in the following chapter but, in brief, the organisation had faced several rounds of 'austerity' budget cuts and subsequent redundancies, so was anticipated as a salient issue for the organisation and employees. Perceived *job insecurity* was measured using a two-item scale based on items from Borg and Elizur (1992) and De Bustillo and De Pedraza (2010); brief measures of job security have demonstrated meaningful and theoretically expected relationships in previous research (e.g. Borg & Elizur, 1992; Ferrie, 2001). Here,

items were selected to include both cognitive and affective components; i.e. reflecting both the likelihood and worry about possible job loss. These reflect different elements but are intertwined (Vander Elst, De Witte, & De Cuyper, 2013). The former concerns employees' cognitive appraisal of their level of job security: '*I feel my job is secure*', with responses on a five-point scale from 'strongly disagree' to 'strongly agree'. While the cognitive appraisal may indicate a lack of job security it does not *necessarily* indicate the impact it may have and the affective component is covered by the item '*I worry about my job security*' from De Bustillo and De Pedraza (2010). Response options are also 'strongly disagree' to 'strongly agree'. A composite score was created by reverse scoring the 'cognitive' appraisal item and summing the two items so that higher scores indicate more job insecurity. Because this variable was based on two individual items from different scales, it therefore had no previous reliability data; reliability based on T1 and T2 survey data from this study found α = .77 & .81, respectively, and supported its use as a composite measure here.

Willingness to disclose and discuss stress or mental health problems at work

These questions were added as a result of early steering group meetings, where the union representative highlighted an issue that some managers' did not have the confidence or ability to support staff experiencing stress and mental health problems. The stigma that surrounds mental health problems has been shown to affect peoples' willingness to actually seek support (e.g. Brohan et al., 2012; Wrigley, Jackson, Judd, & Komiti, 2005). Consequently, mental health awareness training was identified as a possibility, prior to the baseline survey being released. It was therefore considered appropriate to include a measure assessing whether this improved employees' willingness to disclose and discuss mental health problems.

Willingness to discuss stress and mental health problems at work was measured using four items. One item addressing willingness to disclose one's own mental health problems was taken from Oliver, Pearson, Coe, and Gunnell (2005): '*If you felt that your health might be suffering as a result of stress or strain in your life would you consider consulting your line manager/supervisor?*'; response options range from 1 = very unlikely to 5 = very likely. Two further questions related to employee levels of confidence in how supportive they thought a manager would be if they disclosed unmanageable stress of mental health problems and are based on items from the CIPD (2011) 'Focus on Mental Health' survey (e.g. '*my manager would be supportive if I disclosed stress or mental health problems*', and '*I would feel confident disclosing stress or mental health problems to my manager*', with response options from 1 = 'strongly disagree', to 5 = 'strongly agree'). The final item in this section was created specifically for this survey and asks '*if you thought someone you worked with was experiencing stress or mental health problems, how confident would you feel in discussing it with them*?', on a five-point scale from 'not at all confident' to 'very confident'. There is no reliability data for these items, but they were selected in preference to other – validated – scales as these are often lengthy, feature vignettes, or the language is targeted at service users (e.g. Chowdhury et al., 2000; King et al., 2007; Luty, Fekadu, Umoh, & Gallagher, 2006). This raised concerns about both face validity and time taken to complete the survey in the current setting. The selected items were included specifically to evaluate the effects of mental health awareness training for managers (described in chapter six) and were not treated as a single subscale.

Measures of intervention exposure and perceptions (T2 only)

Brief quantitative measures have been suggested as particularly useful for assessing the fidelity of interventions across large organisational samples (Randall et al., 2009). Therefore a small number were added to the follow-up survey, based specifically on the intervention activity that had taken place during the research period. These were based on two simple quantitative items adapted from Randall et al. (2005) and Aust et al. (2010), which were aimed at assessing the employees' exposure to interventions (i.e. did they take part/experience it) and their perceptions of them (i.e. their rating of it). Although Randall et al. (2005) employ a measure of 'awareness' of intervention activity (yes/no), it was anticipated that awareness alone would be a weak measure in this context. Therefore, the two measures used here assessed 'exposure' to intervention(s) and 'rating' of each one experienced. As per Hasson et al. (2014), it was considered that perceptions (i.e. 'rating) would provide detail beyond exposure alone, as one can be exposed to an intervention yet perceive it negatively and thus find no benefit.

Consequently, the main measure for quantitative process evaluation analyses was based on a stem question: '*Overall, how would you rate the following actions taken by PublicOrg in the previous year*…?', which was followed by the list of intervention activities implemented by PublicOrg. Respondents were asked to indicate whether they had experienced it, and if so, were asked to provide their rating of it on a three-point scale ('positive', 'negative', or 'neither positive nor negative').

Open-text questions

Finally, employees were given the option to provide free text answers to three questions on the T1 survey: -

- '*What is the most stressful part of your job?*'
- '*What could [PublicOrg] do to improve staff well-being?*'
- '*What do [PublicOrg] currently do well regarding staff well-being?*'

Two further open-text questions were added to the T2 survey to assess employees' views on the intervention activity.

- '*Do you have any comments about the results of the last survey or the actions taken by PublicOrg since the last survey?*'
- '*If you attended a mental health awareness session/training do you have any further comments, or example of how it has been useful?*': note this question was added at the request of PublicOrg.

Open-text questions were included for two reasons; firstly to corroborate the quantitative data and also allow employees to either raise issues not included in the quantitative part of the survey or expand on those that were (O'Cathain & Thomas, 2004). Hayhow and Stewart (2006) acknowledge open-text questions lack the facility for researchers to clarify or probe participant responses, so could therefore be '*at odds with qualitative research*' (p.485) and thus do not represent triangulation in the fullest sense. However, in common with others (e.g. MacKinnon, 2008) they also argue open-text questions can make a valuable contribution via the opportunities they provide for elaboration and insight. Moreover, researchers may assume they know which stressors should be measured, based on the literature and knowledge of the setting, but it is inevitable that some are omitted (Mazzola et al., 2011). Thorne (2001) advises that although qualitative approaches with large samples could lead to superficial

coverage, they provide a breadth of coverage of the relevant phenomena that may be excluded in smaller, more in-depth research. Therefore, given the size of the sample and the organisation-wide nature of the present research, this is in keeping with the overall aim of the baseline assessment.

A further reason for the inclusion of open-text questions was to allow staff to have a greater voice (the importance of which was discussed in the previous chapter); this does still represent relatively limited participation but provides more opportunity than that allowed within the constraints of a solely quantitative survey. As described previously, the both surveys included open-text questions, and throughout the thesis comments from this qualitative data are quoted to illustrate some of the main themes and issues. Comments are labelled to indicate the participant number and the survey the comment came from (T1 or T2); i.e. participant T2:250 would refer to a comment from participant ID number 250 from the T2 (follow-up) survey.

Other sources of data

The inclusion of both qualitative and quantitative data is recommended (Mikkelsen, Hogh, & Puggaard, 2011) and Johns (2006) affirms the important role that qualitative description can have in organisational research, even in the absence of precise measurement; a view supported by an increasing number of researchers (e.g. Cox et al., 2007; Murta et al., 2007). Descriptive information about the organisation (e.g. sector, number of employees, etc.), is commonplace, but Bambra et al. (2009) assert the need to also report relevant contextual information often omitted from organisational studies; particularly those details related to the motivation for participation/intervention. Therefore, data was collected from a range of other sources

The collection of data using different methods or sources has been strongly advocated to strengthen process evaluation research (Johns, 2006; Nielsen & Randall, 2013). The principal data sources here were the pre- and post-intervention surveys, providing both quantitative and qualitative data; even fairly simple quantitative process evaluation measures, such as those used in studies by Aust et al. (2010) and Randall et al. (2005) are illuminating and help shed light on the factors involved in disappointing outcomes. However, further process-related information was collected throughout the project in the form of the researcher's notes from meetings, organisational documents and action plans, and project-related communications. Aside from the surveys, the main source of information was the researcher's notes from meetings – both formal steering group meetings, as well as informal individual meetings with individual steering group members. Seven steering group meetings were attended by the researcher during the course of the project and eleven individual meetings; as the researcher was an active participant in steering group meetings it was not possible to write comprehensive meeting notes. Nor was it possible to record them, for reasons of confidentiality. This is a limitation, but brief notes and reflections were made during meetings and were written-up afterwards.

In addition to these sources of data, there were also occasions where communications and information were received from stakeholders during the research period; for reasons of confidentiality and anonymity, only the general point or summary is included rather than verbatim reporting of the communication. Similarly, organisational documents such as action plans or information shared with employees are not reported verbatim but are summarised where appropriate. This type of information, covering details of the project itself as well as

more general organisational changes were intended to highlight events or potential issues. Although some of these types of data can be considered anecdotal, they can still be valuable for process evaluation (e.g. Biron et al., 2012b; Johns, 2006; Murta et al., 2007; Nielsen & Randall, 2013). However, where such information is used to illustrate points or make inferences, the source is mentioned in the text (e.g. email communication; or organisational document).

Semmer (2006) notes that process evaluation should be more than a narrative account, although such information is likely to be incorporated, but should '*carefully note and document events and processes so that this information can be tied to outcome variables*' (p.523). However, bringing such a disparate range of data together has been acknowledged as a particular challenge (Dixon-Woods, Agarwal, Jones, Young, & Sutton, 2005). These additional sources of data (i.e. meeting notes, communications, organisational documents), collected during the process by the researcher, were organised using template analysis (King, 1998), which was also employed in the analysis of qualitative survey data, described in chapter five. Template analysis allows the *a priori* identification of themes, which can be used to categorise data, and because the literature review had identified numerous process evaluation-related factors, these were used as pre-specified categories, to organise information about the process and aid reporting of it. For example, motivation for the initiation of a project has been highlighted as a relevant factor, so some of the researcher's notes from early meetings with PublicOrg could be collected under this category. It is emphasised here that this was a method for systematically organising the information from these different sources

of data, rather than in-depth analysis or interpretation, because the intention was for it to describe and illustrate the events and issues.

The role of the researcher

Nielsen and Randall (2013) highlight the need to document the role of the consultant(s); in this case the researcher, to an extent, fulfilled that role. The researcher's role is discussed in more detail in the following chapters; however, briefly, the researcher was external to PublicOrg and was not responsible for selection or implementation of interventions. However, the T1 survey data was collected and analysed by the researcher, who also presented a report summarising the findings to the steering group, which they used to inform the selection of interventions.

Furthermore, there is also the subjective role of the researcher, weighting and reporting the various sources of information to inform the evaluation. It is recognised that the researcher cannot be entirely objective and is unlikely to be a passive chronicler of events (Diemert Moch & Gates, 2000), particularly considering the researcher was responsible for the baseline assessment that guided the project. However, neither was the researcher a passive observer of the remainder of the process; there was much prompting and cajoling required throughout the project in order to keep it on track; relationships were built with those involved in the project, some were positive, some were more difficult. Any or all of these things could have influenced the interpretation of the information received. Where possible, corroboration of this was done. For example, the accuracy of notes from steering group meetings was checked with a steering group member. Furthermore, the meetings with individual steering group members were requested by the researcher at various points during the project and were used to check progress, but also to verify the accuracy of the researcher's notes and understanding.

These meetings were informal but allowed some insight into internal organisational events and the researcher's interpretation of them. However, in the main, reporting of the process itself has been restricted to elements that can be verified – i.e. dates, events, with reasons and rationale for certain actions only reported where some corroboration had been provided. So in summary, while efforts to ensure objectivity have been made, the researcher has attempted to also recognise their own role in the process.

Ethical considerations

The researcher was evaluating PublicOrg's own efforts to implement interventions and was not responsible for making any changes or manipulations, so the main ethical considerations related to voluntary participation, anonymity, and confidentiality. It was made clear to potential participants that participation was voluntary and the decision to participate (or not) would not affect their employment in any way (nor could anyone identify who had participated). The survey itself was administered by the researcher at the University of Salford and only aggregated data was shared with PublicOrg. The exception related to comments provided in response to the open-text questions included in the survey; it was recognised that many respondents would *want* the opportunity to share their views directly with their employer so comments from only those employees who consented were provided to PublicOrg (with all other information removed; i.e. no raw survey data, demographic, or role information). Participants were asked if they would consent to this and to check a box to provide it, if this was not given their comments were excluded from this (see appendix A, p. 317 for the survey, participant information sheet, and consent to send comments to their employer). On this basis, ethical approval was granted from the University of Salford ethics committee for the College of Health and Social Care (reference: HSCR13-19; appendix H).

CHAPTER FOUR: INITIATION PHASE

Main aims of initiation phase

The main purpose of this chapter is to detail the context of the project and introduce some of the factors involved during the initiation phase. Nielsen and Randall (2013) are clear about the importance of understanding the general conditions and background to the project; not just where and when it takes place, but also the conditions and backdrop. The initial impetus for the project and the support of key stakeholders – particularly senior management – are also key questions at this stage (Nielsen & Randall, 2013). In terms of the project itself, this phase had several tasks, such as setting up the steering group and scope of the project, as well as preparing for the project as a whole. However, the main goal of this first phase in direct relation to the following one (i.e. the 'screening' phase), as per Nielsen and Abildgaard (2013), was to maximise the ability of the baseline stress-risk assessment to identify the main issues. As described in the previous chapter, this assessment was primarily survey-based, and therefore the most tangible outcome of this phase would be to ensure response rates were as high as possible amongst PublicOrg's workforce.

- **Main aim of 'initiation' phase**: Reach the widest possible sample of employees

A complementary but less tangible function of this phase, with wider implications for the project as a whole – rather than only the following phase – was to begin the process of facilitating employee involvement in the project. The baseline assessment represented an opportunity for PublicOrg to involve their staff and give them a voice in order to tailor any

intervention activity to the needs of their workforce. The benefits of this were twofold: with more effective staff input the stress-risk assessment would be more likely to identify the key stressors, but would also allow employees to benefit from the chance to have a say (e.g. Wood, 2008).

Background/context

The project and events described in this thesis took place between 2013 and 2015 and involved PublicOrg – a UK local authority, employing approximately 4,700 staff in a wide variety of roles, covering social care, public-facing advice and guidance, administrative, and manual work. In common with other UK public sector organisations, PublicOrg had been affected by 'austerity measures' amounting to spending cuts of almost 30% in real terms (Chartered Institute of Public Finance and Accountancy, 2014). The need to 'do more with less' is not new, of course, but the research took place at a particularly turbulent time for PublicOrg: approximately 1,200 posts had been cut since 2010, and further job losses in local authorities and public services were also anticipated (Office for Budget Responsibility, December 2012). This also meant the research took place against a backdrop of restructuring, with the likelihood of more to come. In fact, there were numerous restructuring-related changes occurring across PublicOrg in different departments. It was not possible for the researcher to obtain specific details of these, but it was known these were taking considerable work for PublicOrg to plan and administer, which had implications for the process.

This was alongside longer-term trends in the UK public sector, such as the growth in performance monitoring systems, reduced staffing levels, and greater work intensity for those who remain, that have been ongoing since the 1980's (Richardson, Tailby, Danford, Stewart,

& Upchurch, 2005). Perceptions of job stressfulness have been found to be higher in the public sector and those working in large organisations (DWP, 2015). Indeed, work in general has been subject to increasing levels of job complexity, coupled with reduced job control, in recent decades (Felstead, Gallie, & Green, 2004); both of which have been identified as influential factors in psychological health/well-being at work (i.e. Karasek, 1979). Meanwhile, organisational data showed a 10% rise in the number of days of staff sickness absence attributable to stress, anxiety and depression, from 2012 to 2014 (approximately 18,000 days rising to 20,000 days per annum), despite 9% fewer staff in post at the later date.

Initiation

The researcher initially approached PublicOrg in January 2013 with the offer to take part in a research project focused on organisational interventions to improve the psychosocial work environment and employee well-being.   The researcher was the instigator, but PublicOrg were quick to take the initiative, and had provided informal agreement to participate in the research within two weeks. Senior management indicated that they wanted to use the project as an opportunity to develop and implement a long-term preventative stress and employee well-being strategy. PublicOrg swiftly assembled a dedicated 'health and well-being steering group' that the researcher was invited to be part of. The group was chaired by a senior member of PublicOrg's leadership team and included senior managers from the organisation's human resources and health improvement departments, with the latter experienced in the promotion of physical and mental health. The group also featured the head of the external provider responsible for counselling and occupational health. Previous research has indicated the importance of documenting the extent to which steering groups include people with

decision-making authority (Nielsen & Abildgaard, 2013; Nielsen, Randall, et al., 2010), and the seniority of members ensured this was the case here. Similarly, union representation was also obtained, and their involvement has also been suggested as an important facilitator of staff well-being initiatives as they may offer a form of employee representation (Karasek, 2004; Nielsen & Randall, 2013).

The first two formal steering group meetings took place in July & September 2013; formal agreement to participate was given by PublicOrg at the initial meeting, which was aimed at introducing the research project and deciding how it might be practically applied in relation to the organisation's well-being strategy. The researcher outlined the proposed framework for the project, based on intervention frameworks described by previous research (e.g. Kompier et al., 1998). It was clarified at these meetings that the researcher's function was to evaluate the project, which would include the administration of the two surveys. However, the findings from the first of these surveys, presented by the researcher to the steering group, would also form the basis for the steering group's selection of priority issues to target and the identification of interventions. The limitations of surveys were acknowledged, but it was agreed as the most practical approach given the time and resources available to PublicOrg. According to the steering group, an internal survey a year previously, on a different topic (regarding staff transport & travel), had apparently obtained a response rate of approximately one-third, so good communication about the survey and its purpose was deemed essential. Furthermore, the HSE recommend supplementing surveys with additional sources of data, such as focus groups. For practical reasons larger scale group sessions were proposed by PublicOrg and provisionally agreed; these would be held after survey results were analysed

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and would be used to share and discuss the findings with employees. These larger focus-group/feedback sessions were also intended to help to corroborate findings and were also to offer a further opportunity for employees to influence the process. The union representative indicated that they were supportive of the survey and would encourage participation among their members.

Motivation

Based on those early steering group meetings, senior managers stated that the organisation was concerned with improving the psychological well-being of staff, particularly in light of the ongoing budget cuts. PublicOrg had existing health and well-being-related resources in place to support staff, such as Occupational Health, counselling, and physiotherapy services, but they recognised the additional pressure on employees to meet demands with fewer resources, as well as concerns about their job security. Nielsen and Randall (2013) highlight the relevance of an organisation's motivation for taking action, with research suggesting performance- or business-motivated initiatives tend to have less positive effects on implementation and employee perceptions of interventions (e.g. Andersen & Westgaard, 2013; Egan et al., 2007; Mikkélsen & Saksvik, 1999). The steering group was interested in using the research project to help them to assess current levels of employee well-being, identify any potentially problematic psychosocial work elements, and to take appropriate action to address these. They were also keen for all staff to take part and benefit, which had implications for the study design (i.e. no pre-allocated control groups), but was also considered indicative of their commitment. On a related note, it was known early in the process that PublicOrg's restricted resources meant that specific tailoring of interventions to

particular departments or teams was not possible. Therefore the subsequent baseline assessment phase was conducted at the organisational level, rather than at the departmental level. It was recognised by the steering group that tailored analysis and intervention(s) to individual departments within PublicOrg would be preferable, but resources meant this was unlikely to be feasible and so the project proceeded on the basis that interventions would be organisation-wide.

Regarding the organisation's motivation, the chair of the steering group made it clear in the first two meetings that PublicOrg wanted to hear what employees thought and did not want to avoid asking difficult questions. Congruent with this, the union representative on the steering group was asked by the steering group to share a draft version of the survey with a small group of employees to obtain their views. No specific details of this group were available to the researcher, but it was made up of approximately 10 frontline employees selected by the union representative, with the knowledge of the steering group. These employees suggested the addition of some specific questions relating to support and recognition from the organisation, which were not previously covered by the survey – the topic of these questions were closely aligned to those of the POS so as mentioned in the previous chapter, as a result of this consultation the POS items were added to the survey as a psychometrically validated alternative to the employee generated items. The updated draft was then sent back to this group of staff for their feedback via the union representative. This change was approved and a revised survey was presented for further comments to the steering group for further comments, and all stakeholders subsequently indicated they were content to proceed. Further evidence for PublicOrg's motivation and support was also shown when the researcher shared

early draft versions of the survey during the planning phase; at that time it contained some potentially contentious questions[1] but at no point did any of the steering group suggest their removal.

Senior management support

Senior management support for the process was highlighted as a key element of intervention success, and those at the top of the organisation appeared supportive of the process and motivated by a desire to support their staff. The swift reaction to the initial approach from the researcher in assembling a steering group, that also included senior decision-makers, suggests the process was taken seriously at the highest level. Further evidence of the organisation's support for the process is that senior management allowed employees to take time during work hours to complete the questionnaire.

The union representatives were also supportive of the process, and actively involved in the group. Research suggests that university 'sponsorship' of an organisational survey may be helpful in promoting a sense of 'neutrality' (Anseel, Lievens, Schollaert, & Choragwicka, 2010), and union support was also anticipated to provide additional evidence of this and further mitigate potential suspicions that employees may feel about such requests from employers (e.g. DeJoy et al., 2010).

In several ways, therefore, senior managers demonstrated their support for the project. However, the very fact that senior decision-makers were involved in the steering group meant

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[1] An example questions was "*The people responsible for making improvements do not know enough about what they are doing*". These are from the 'dispositional attribution' subscale of Wanous et al. (2000) 'Cynicism About Organisational Change' measure; they were ultimately removed from the survey by the researcher for practical reasons; i.e. ensuring it was not too long and onerous for respondents.

their availability and the potential for diary clashes were issues throughout; for example, this led to two late-notice postponements of steering group meetings during this phase alone and delayed proceedings. In fact this was further evidence for the effect of context, as these diary clashes were often related to meetings about the implementation of cuts and related changes. Based on meeting notes and communications with steering group members, this was not interpreted here as evidence that senior management were not supportive. Rather it was reflective of the challenging environment combined with the sheer number of meetings senior managers had to fit in.

Coordination

However, it was notable that coordination and follow-up of agreed actions emerged as an issue during the process. Despite the positive start and evident enthusiasm for the project it stalled at several points and was almost a year later before the survey was finally released. Meeting postponements contributed, but perhaps the key issue was a lack of follow-up of agreed steering group actions. It was also frequently difficult to get updates or answers from two steering group members in particular; it often took several attempts by the researcher to obtain a response. The reasons for this were less clear: workloads seemed to be an issue, and it was important to note that the steering group and related activity were additional pieces of work for all members. In contrast, the work of another steering group member further indicates the impact of 'key players' (Nielsen & Randall, 2013), whose efforts effectively kept the process on track throughout. At several points when progress stalled, this particularly proactive senior manager responded swiftly to requests from the researcher and pushed for progress.

Pilot survey

During this period – while progress had been held up – the researcher arranged meetings with the aforementioned steering group member and agreement was obtained to run a pilot of the survey, prior to the April 2014 steering group meeting. The pilot was opened to approximately 200 staff in three departments and opened in March 2014 for two weeks; two departments (approximately 85 employees in each) accessed the survey online, with 25 paper copies of the questionnaires circulated in another department where employees did not generally access IT/email in their role. An introductory email message and link to the online survey were sent out to employees in the first two departments on the first day of the pilot, while a manager disseminated the 25 paper questionnaires during a team meeting in the third department. The final pilot sample was 80 (40% response rate); the online survey was completed by 60 out of 175 (35%) offered the online version of the survey, versus 20 out of 25 (80%) provided with the paper version[2].

Results from the survey were summarised and shared with the steering group to provide an example of the type of information they would gain from the full survey. The pilot also highlighted that the survey did not appear to have a great deal of promotion among the pilot sample prior to its launch, apart from the email on the morning of its release. This was raised by the researcher with the steering group. That aside, the steering group agreed to proceed, and a provisional survey release date in May 2014 was agreed. However, the failure of one of the steering group to follow-up on an agreed action (from September 2013) to ensure

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[2] The pilot study data was incorporated with the main baseline survey dataset and analysed as part of it. There were no differences in results with and without the pilot data.

PublicOrg's legal department had assessed the survey and approved the use of their employees' data meant the eventual release was August/September 2014.

Full baseline survey release

All employees across the six PublicOrg departments (n = 4,675) were offered the opportunity to access the survey online, between 11th August and 8th September, 2014. Paper copies of the questionnaire[3] were also made available for staff without regular access to computer facilities. Anseel et al. (2010) recommend several strategies in their meta-analysis of methods to improve response-rates, several of which were employed here; for example, ensuring the survey was relevant to the setting/sample, as evidenced by getting feedback from a sample of employees and union representatives. The anonymity and confidentiality of participants' responses was emphasised, and required for ethical reasons. Ethics also required the voluntary nature of the survey to be made explicit. Employees were also given time during their scheduled working hours to participate.

On the day the baseline survey opened all eligible employees were sent an email with details and a weblink to the online version of the survey, although it is not possible to determine whether all staff actually received or read these. Based on feedback from the pilot survey regarding the lack of promotion, the survey was also promoted in PublicOrg's weekly intranet newsletter on the day of release and on payslips at the end of the first week. It was originally intended that in the run up to the survey release date awareness-raising email messages and intranet promotion would be delivered, while managers were to be briefed to cover it in team

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[3] The measurement equivalence of paper-based and online surveys in organisational settings has been supported in a study of over 52,000 employees (De Beuckelaer & Lievens, 2009).

meetings. However, neither the pre-promotion nor manager briefings took place, as indicated by communication received by the researcher from two employees. The researcher's email address was included on the survey participant information sheet and these participants made contact on its release to query this lack of survey promotion. For example, one (a middle manager with some responsibility for employee health and safety) expressed disappointment that they were not informed of it beforehand, as it was relevant to their role and they would have been keen to promote it. Following this up with members of the steering group, the researcher was able to confirm this coordinated pre-promotion did not occur. Seemingly, one of the issues was difficulty booking 'space' on the weekly organisational communications calendar (which promotes events and information across the organisation, via intranet, screensavers), as slots are booked up several weeks in advance and this was not booked early enough.

Additional weekly reminders were emailed out to all staff during the period the survey was open. The general pattern of responses to the online survey while it was open suggests that these email reminders were at least being seen and responded to by some employees. Records of survey completion progress during the process show there were spikes in survey completions that corresponded with those email reminders (appendix B, p.329: survey promotion, and completion rates by day). Dissemination of paper surveys was via line managers to their teams, and focused on roles where staff did not tend to access email. Unfortunately, no information was available to determine the extent to which managers encouraged completion, but anecdotal evidence (discussion with one steering group member)

suggests this was variable, but what can be said is that there was no systematic promotion of the survey to line managers.

'Initiation' phase main aim outcome: 'reach' of baseline assessment

The key goal of the preparation was to maximise the survey response rate so that findings would be based on the views of the largest possible proportion of the workforce. The final sample of 1,425 completed surveys represented a response rate of 30.5% (1291 online, 134 paper). Table 7 summarises some of the sample characteristics and compares them to those of overall PublicOrg workforce (based on internal data provided by PublicOrg to the researcher).

Table 7: Baseline survey sample characteristics
n = 1,425 from 4,675 (figures in brackets show full workforce characteristics)

Variable	Category	# of sample (total = 1,425)	% of sample	(% distribution in *workforce*)
Age (sample mean=45.8)	16-24	19	1.3%	(3.8%)
	25-34	232	16.3%	(19.5%)
	35-44	328	23.0%	(25.2%)
	45-54	564	39.6%	(33.9%)
	55-64	252	17.7%	(15.5%)
	65+	30	2.1%	(2.1%)
Gender	Female	986	69.2%	(71%)
	Male	435	30.5%	(29%)
	Not stated	4	0.3%	(-)
Full/part-time	Full-time	1130	79.3%	(65%)
	Part-time (< 36hrs)	294	20.6%	(35%)
	Not stated	1	0.1% (-)	(-)
Non-managers/ managers*	Non-managers	970	68.1%	(-)
	Managers/supervisors	455	31.9%	(-)
Tenure (sample mean=13.9yrs)*				

* Organisational data not available

Table 8: Response rates by department

Department	# responses by dept/total in dept*	Approximate % response rate by dept
Social care	503/1116	45.1%
Business	355/1042	34.1%
Environmental	187/1142	16.4%
Community	282/1054	26.7%
Buildings	66/202	32.7%
Health	20/40	50.0%
Not stated	12/-	-

Note: *the figures used to estimate the % response rate for each department were based on organisational data prior to the latest round of restructuring, and the figure does not add up to the total sample size of 4,675 so are provided as an indication only.

The sample was predominantly female (69.2%) and full-time (79.3%). Chi-square tests for goodness-of-fit between the sample and the characteristics of the overall workforce (appendix C, p.330) indicated the ratio of men and women was not significantly different to that of the overall PublicOrg workforce (χ^2 (1) = 1.83, $p > .05$), while both the age distribution (χ^2 (5) = 51.67, $p < .001$) and ratio of full/part-time participants differed significantly (χ^2 (1) = 129.25, $p < .001$). Organisational data was not available regarding tenure or managers/non-managers.

Although the baseline assessment was to be carried out at the organisational level the representativeness of the sample by department was relevant to note. Restructuring in the period leading up to the survey meant that accurate figures for the total number of employees in each department were not available, but PublicOrg data from prior to this latest restructure was used to provide the approximate proportion of employees from each department who took part; these should be interpreted with caution and the goodness-of-fit test was not appropriate in this case. Based on these figures, response rates ranged from 16.4% to 50%. The department with the lowest rate carried out a range of functions, but based on information

from PublicOrg it was clear that a greater proportion of their staff were in manual roles that did not require the use of IT facilities; while the low proportion could represent a lack of interest within the department, it could equally illustrate the reliance on electronic communication and promotion of the survey, which many in this department would not usually access. It also suggests that managers did not promote it (or were not asked to), which would tally with the middle manager's email received by the researcher, mentioned previously (page 124).

The response rate may also have been affected by two other factors: workloads and employee expectations. Despite permission to complete surveys in work time, there were two employee comments (taken from the baseline survey) indicating problems finding the time during work to complete it, which highlights the influence of context (i.e. existing work demands) on this stage of the process.

- *"Had to do this survey at home in my own time (don't know where the magic 20 mins are to fill the survey in?"* (participant T1:1425)

This is was a very small minority, but this is mentioned as these respondents completed the survey despite the issues. It suggests a degree of motivation to complete the survey at home when workloads prevented completion at work, which may not have been shared by those who ultimately did not complete it.

Furthermore, organisational interventions do not take place on a blank slate, and a further contextual factor that could have affected completion of the survey were employees' previous experience of similar initiatives. Prior experience of poorly implemented or disappointing

attempts have been linked to scepticism and lower engagement with future efforts (Choi, 2011; Reichers, Wanous, & Austin, 1997; Wanous et al., 2000). Despite participating in the survey, five respondents still expressed a lack of confidence in it, based on their previous experience.

> "*the results of [a previous survey] were buried*" (participant T1:141)

> "*We have completed stress surveys and outside consultants have also advised that we are over worked, but nothing has been done to support the team.*" (participant T1:21)

Nonetheless, ten employees were positive about the survey precisely because they had not felt anything had been done previously, while one saw it as a way of expressing their frustration about work.

- "*This survey is a step in the right direction.*" (participant T1:1178)
- "*Do these surveys at minimum yearly as this is the first one I have seen in 5 years.*" (participant T1:491)
- "*I've forced myself to complete this survey because it serves as an outlet for me to release a little frustration.*" (participant T1:670)

'Initiation' phase supplementary aim: facilitate involvement

More generally, this phase was also intended to develop a baseline assessment that facilitated employee involvement. Involvement comes in many forms, and as discussed in the literature review, practicalities may dictate what is feasible – particularly in large organisations or when resources are scarce. It was known that resources were limited from the outset and the survey was planned to be the main method due to the size of the organisation. Surveys have been

suggested as appropriate for risk assessment in large groups such as this (Cox, Randall, & Griffiths, 2002), but although they may offer a form of employee involvement this was at the lower end of the participative spectrum (Grawitch, Ledford, Ballard, & Barber, 2009). Nonetheless, the addition of open-text questions to the survey was intended to allow employees to comment on issues that were relevant to them (O'Cathain & Thomas, 2004). It was also agreed that focus groups, or larger 'feedback sessions' would be held after the baseline assessment, which would provide greater opportunity for staff to play an active part in the process, and provide further feedback on the survey findings (note: these focus group sessions did not ultimately take place due to the time and resources available to PublicOrg). The extent to which the baseline assessment was successful in facilitating employee involvement is discussed further in the following chapter.

Conclusion

This chapter provided details of the challenging context PublicOrg and employees were operating in, as well as reporting on other factors, such as project motivation, noted by Nielsen and Randall (2013) as important in interpreting the findings of intervention projects. The 'initiation' phase had two main aims here and, in terms of process evaluation, it was also where some of the key factors in the project began to manifest themselves; e.g. senior management support, coordination, and communication. The baseline survey was intended to inform the next phase of the process by highlighting the main work-related issues for employees. However, the response rate was disappointing from PublicOrg's perspective, albeit fairly typical for research of this kind (Anseel et al., 2010; Baruch & Holtom, 2008; Kerr et al., 2009a). It also echoed the response rate of an internally administered employee

'transport and travel' survey a year before. Notably, this previous survey had been set up so that employees who had not completed it would automatically receive regular electronic reminders, which was not the case here for ethical reasons (i.e. anonymity). However, the promotion of the survey amongst the sample and involvement of managers prior to its release had been discussed and agreed at early steering group meetings but did not occur.

In summary, motivation, initiation, and support from senior management at PublicOrg were largely conducive to this phase of the process. There was a clear will to act, and for the 'right' reasons; i.e. it was aimed at improving conditions rather than performance. The steering group was also provided with decision-making powers, although the physical manifestation of senior management support (i.e. their presence at meetings) was occasionally hampered by circumstances. However, it was shown that communication and coordination were key issues for the process at this stage; lack of communication of the survey itself, and lack of coordination within the steering group to ensure plans and action points were completed as and when agreed, as well as in between meetings. The demands on many steering group members were also influential, as their involvement came in addition to their existing duties; this was alongside reduced staffing and consequent increase in responsibilities, as well as implementing further changes in response to previous budget cuts. There were also indications that some employees' workloads and expectations (or lack of) may have affected response rates beyond the lack of promotion and awareness.

The following chapter discusses the analysis and findings from the 'screening' phase – the baseline stress-risk assessment – that was used in the prioritising of issues by PublicOrg.

CHAPTER FIVE: 'SCREENING' PHASE

Chapter outline and rationale

This phase had the aim of identifying the most pressing psychosocial stress-risk factors to assist PublicOrg in prioritising issues and developing interventions in the following 'planning' phase. The researcher presented a report based on these findings to the PublicOrg steering group approximately six weeks after the survey closed.

- **Main aim of 'screening' phase**: to identify the key organisational-level psychosocial stressors at PublicOrg

Given the complexities of stress, the psychosocial environment, and its measurement, the risk assessment is a crucial and widely recommended step (e.g. Cox, Griffiths, Barlow, et al., 2000; HSE, 2001; Kompier et al., 1998). To address the most prominent stress-risk(s) it is important to know exactly what needs to be addressed. The risk assessment here was based on the survey described in the previous chapter and the quantitative element focused primarily on the MSI, which was specially developed to assist with this task. Because of the importance of this phase, and the challenges involved, some commentary and discussion is provided to illustrate the process of how data was interpreted. Qualitative data to inform and expand on the quantitative data is then reported, before the chapter summarises the key findings and conclusions.

In addition to its primary role in highlighting priority stressors, which forms the main part of this chapter, a further function of the baseline assessment process – following on from the

previous phase – was to facilitate employee involvement in the process with a view to improving awareness and buy-in to any consequent intervention activities (e.g. Nielsen et al., 2007). This is considered in the concluding section along with a discussion of how effective the baseline assessment was in its main aim.

Risk assessment: Quantitative assessment of stress risks

The case has been made for assessing and addressing the specific stress-risks of different units/departments within a large organisation but, as mentioned in the previous chapter, this was not feasible for PublicOrg. Therefore the baseline assessment was conducted at the organisational level rather than tailored to departments and this is the level of analysis reported here.

MSI mean scores

As part of the development of the MSI, the HSE collected data from over 66,000 employees in 136 organisations, and given the role of context in the present study it is instructive to compare PublicOrg's data with that of the 59,636 public sector employees from that MSI norm population (based on data reported in Edwards & Webster, 2012). Note that all MSI subscales are scored so that lower scores indicate greater stress-risk. Table 9 shows that all but two of PublicOrg's mean subscale scores were significantly higher (i.e. better). This is noteworthy, as the HSE benchmark data was collected pre-recession (< 2008) and would, therefore, have taken place in more favourable economic conditions, prior to the rounds of austerity-related budget cuts to the public sector.

Table 9: *t*-tests of difference in mean MSI subscale scores of PublicOrg & HSE public sector benchmark data

HSE subscale	PublicOrg[a] Mean (*SD*)	HSE benchmark data[b] Mean (*SD*)	t-statistic
Change	3.02 (*.89*)	3.01 (*.25*)	1.32
Demands	**3.15** (*.70*)	3.01 (*.21*)	22.37[***]
Control	**3.51** (*.75*)	3.45 (*.29*)	7.26[***]
Mgr. support	**3.53** (*.91*)	3.44 (*.22*)	13.01[***]
Peer support	**3.84** (*.70*)	3.76 (*.14*)	17.07[***]
Relationships	**3.87** (*.74*)	3.74 (*.46*)	10.35[***]
Role	4.08 (*.70*)	**4.19** (*.31*)	12.65[***]

Note: **bold numbers** denote significantly higher scoring (better) of the two samples for each subscale; [a] PublicOrg *n* = 1,425; [b] *n* = 59,636, means & SD taken from Edwards & Webster (2012); [***] *p* <.001

Looking at PublicOrg's mean MSI scores, descriptive statistics showed the two lowest scoring factors were *change* (mean = 3.02) and *demands* (mean = 3.15), with *role* (mean = 4.08) and *relationships* (mean = 3.87) the two highest. It is important to emphasise that subscale scores are not standardised in any way and are therefore not comparable; so for example, one cannot say based on these scores that *relationships* are less of a risk in this sample than *change* on the basis of its higher score alone. Thus, although they may be informative for assessing progress over the longer-term, this information was of limited use at the initial risk-assessment stage. In fact, the same rank order of mean scores has consistently been found in other samples, across many different roles and sectors, with *demands* and *change* the lowest scoring subscales, and *role clarity* the highest (e.g. Edwards & Webster, 2012; Guidi et al., 2012; Houdmont, Kerr, & Addley, 2012; Ravalier, McVicar, & Munn-Giddings, 2014). This also suggests a lack of sensitivity to different settings. Consequently, it would be misleading to use mean scores alone to rank and prioritise the potential stress-risk factors.

To support analysis of MSI data, the HSE also provide a spreadsheet-based 'analysis tool' (http://www.hse.gov.uk/stress/standards/downloads.htm). At the outset of the present research, the HSE spreadsheet included the facility for an organisation to compare their MSI data against the HSE's benchmark dataset, described previously. One its key features was that when an employer entered their own data, the spreadsheet provided colour-coded output (red-amber-blue-green) indicating an organisation's relative performance against the benchmark data (e.g. red indicated a score in bottom 20th percentile of the benchmark dataset, and green indicated the top 20th percentile). This was intended to help employers identify particular stress-risk factors requiring attention and research showed that employers found this aspect particularly helpful in prioritising risks (Gaskell, Hickling, & Stephens, 2007). This was also an attractive selling point for PublicOrg when the researcher initially approached them to discuss participation, and it was originally intended to use this as an integral part of the risk assessment. However, this benchmark comparison facility was removed from the spreadsheet in 2013, prior to the baseline survey, as the HSE considered the data to be out of date. There were also concerns over the representativeness of their benchmark sample, and therefore whether they were really useful as a basis for prioritising risk factors; this was confirmed by the researcher by contacting the HSE directly (McGreal, 2015, personal communication).

This presents a problem. On the one hand, the HSE's spreadsheet and benchmark data comparison was potentially misleading as a risk assessment tool – giving the erroneous impression of a HSE-endorsed objective standard and thus false confidence to employers regarding its ability to identify priority stress-risks. On the other hand, the updated version of the spreadsheet now provides only descriptive statistics that offer little to identify priorities.

This renders reliance on the HSE spreadsheet problematic, especially for employers who may not be aware of some of these pitfalls and raised the question of how best to analyse and interpret the MSI data.

This question is fundamental to the use of MSI in risk assessment, given its purpose. The comparisons shown in table 9 may provide useful *context* to PublicOrg's survey data, while the mean MSI scores can tell us that stressors related to *change* and *demands* might be experienced more frequently than bullying/harassment (covered by the *relationships* subscale). However, neither of these says anything about the intensity or impact of these psychosocial stressors in the workplace (Cooper et al., 2001). Therefore, further analyses were conducted in order to interpret the data and inform the baseline assessment.

Correlations

In light of the aforementioned, the strength of association between each stress-risk factor and well-being-related outcomes may, therefore, be more informative in this regard; for example, Dollard and Gordon (2014) use correlations between stressors and strain-related outcomes to identify and decide on priorities for action to address risk factors. The focus here was on the MSI factors, in relation to distal outcome variables, JRWB and GHQ, in addition to intermediate outcome variables *job stress* and *job satisfaction*. table 10 includes all bivariate correlations (Pearson's *r*), alongside variable means, standard deviations, and scale reliabilities, which ranged from α = .76 (*relationships*) to α = .93 (POS).

HSE MSI subscales

All correlations between the seven MSI factors and both GHQ-12 and JRWB were significant and in the expected direction; e.g. higher scores, indicating better psychosocial conditions, were associated with lower GHQ-12 scores. *Change* and *relationships* subscales demonstrated the strongest correlations with GHQ-12 (both $r = -.43$, $p < .001$), while JRWB was most strongly related to *change* ($r = .58$, $p < .001$) and *manager support* ($r = .56$, $p < .001$). Meanwhile, all correlations between MSI subscales were significant, ranging from $r = .17$ (*demands* and *control*) to $r = .68$ (*manager support* and *change*). The latter could be of particular relevance in this context because line managers may be the ones tasked with the implementation of organisational change, while *manager support* also showed strong relationships with several other MSI factors; including *peer support* ($r = .65$, $p < .001$). *Change* also had one of the stronger associations with *job satisfaction* ($r = .55$, $p < .001$), while *demands* showed the strongest relationship with perceptions of *job stress* ($r = -.60$, $p < .001$; i.e. better perceptions of demands, was associated with lower levels of perceived *job stress*).

Table 10: Scale means & bivariate relationships for baseline variables (Pearson's *r*)
(*scale alpha coefficients listed on diagonal*); *n* = 1,425

Variable[a]	Mean (SD)	Demographics			Well-being related/ Intermediate indicators				HSE MSI subscales							Other proximal/context variables			
		1. Gen	2. Age	3. Hrs.	4. GHQ	5. JRWB	6. Stress.	7. J.Sat	8. Dem	9. Con	10. Mgr.	11. Peer	12. Rel.	13. Role	14. Chg.	15. POS	16. PSC	17. Insec.	18. CAOC
1.Gender[b]	-	(n/a)																	
2.Age	44.93 (9.74)	-.01	(n/a)																
3.Hours[c] (PT/FT)	-	.22	.01	(n/a)															
4.GHQ (-)	13.77 (6.41)	.02	.02	.08	(.92)														
5.JRWB (+)	3.08 (0.78)	-.05	-.01	-.03	-.70	(.92)													
6.Job stress (-)	2.94 (0.93)	.05	.08	.12	.44	-.52	(n/a)												
7.Job sat. (+)	3.56 (0.90)	-.13	-.02	-.03	-.47	.68	-.38	(.84)											
8.Demands (+)	3.15 (0.70)	-.09	-.08	-.13	-.38	.44	-.60	.26	(.84)										
9.Control (+)	3.51 (0.75)	.03	-.01	.13	-.25	.35	-.26	.35	.17	(.83)									
10.Mgr support (+)	3.53 (0.91)	-.11	-.05	-.06	-.40	.56	-.30	.56	.30	.38	(.90)								
11.Peer support (+)	3.84 (0.70)	-.13	-.11	-.06	-.33	.48	-.30	.47	.29	.30	.65	(.82)							
12.Relationships (+)	3.87 (0.74)	-.08	-.07	-.09	-.43	.53	-.34	.45	.36	.27	.57	.58	(.76)						
13.Role (+)	4.08 (0.70)	-.11	.08	-.07	-.40	.46	-.24	.47	.23	.25	.50	.45	.36	(.84)					
14.Change (+)	3.02 (0.89)	-.13	.05	-.05	-.43	.58	-.31	.55	.34	.35	.68	.56	.47	.55	(.79)				
15.POS (+)	3.19 (0.90)	-.09	-.07	-.03	-.44	.61	-.30	.56	.33	.28	.63	.50	.51	.41	.65	(.93)			
16.PSC (+)	2.91 (0.82)	-.07	.04	.00	-.38	.53	-.29	.51	.31	.29	.59	.47	.42	.40	.66	.66	(.83)		
17. Job insecurity (-)	3.62 (0.95)	.07	-.02	.10	.27	-.30	.11	-.21	-.07	.01	-.18	-.17	-.22	-.21	-.23	-.26	-.16	(.77)	
18. CAOC (-)	3.04 (0.83)	.09	.05	.00	.41	-.54	.24	-.45	-.25	-.20	-.43	-.33	-.36	-.34	-.52	-.56	-.54	.21	(.92)

Note: *p* < .001 for correlations of +/- .09 and above; *p* < .01 for +/-.07 and above; *p* < .05 of +/-.05 and above
[a] (+) higher scores indicate better conditions/well-being; (-) higher scores indicate worse conditions/well-being;
[b] f=1, m=2; negative correlations indicate that females scored higher, positive correlations indicate males scored higher;
[c] PT=1; FT=2

Psychological health and well-being

Using the 'GHQ method' of scoring the GHQ-12, commonly used to establish the prevalence of mild-to-moderate psychiatric disorder in a sample (Weinberg & Creed, 2000), the proportion of respondents scoring above the 'caseness' threshold was 32.8%. In other words, 32.8% of the sample would be classified as having mild-to-moderate mental health problems[4]. Such a stark finding may focus the attention of an employer were PublicOrg not already convinced that employees' psychological health was an issue. JRWB was more strongly correlated with the psychosocial conditions than GHQ-12 for all seven of the MSI subscales, which is in line with the former's job specific conceptualisation and that it should be more sensitive than *general* well-being/psychological health to the work context (Warr, 2012). This was echoed for 'intermediate' outcome measures, *job stress* (JRWB, $r = -.52$; GHQ $r = .44$) and *job satisfaction* (JRWB, $r = .68$; GHQ, $r = -.47$). In other words, due to the way JRWB and GHQ are scored, higher (better) JRWB was associated with lower *job stress* and higher *job satisfaction*; conversely, higher (worse) GHQ scores were associated with higher *job stress* and lower *job satisfaction*.

Correlation summary

In terms of specifying particularly prominent stressors among the MSI subscales, based on their association with two psychological health/well-being outcomes (GHQ-12 & JRWB), there were relatively small differences in the magnitude of correlations. For GHQ-12, correlations ranged from $r = -.25$ (*control*) to $r = -.43$, but there was little between the 'top-

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[4] This is more than double the 15.5% rate found in the general UK population (e.g. Katikireddi, Niedzwiedz, & Popham, 2012). Nonetheless, prevalence rates do tend to be higher in organisational stress-related studies (Goodwin et al., 2013) and there may be several reasons for this. Goodwin et al. (2013) suggests research that clearly communicates its main purpose is stress/well-being-related may be susceptible to 'priming' effects; additionally, there is a tendency that are dissatisfied staff or affected by the research topic are disproportionately likely to participate.

five' correlations; between $r = -.38$ (*demands*) and $r = -.43$ (both *relationships* and *change*). Similarly, although correlations were larger between MSI factors and JRWB with the smallest correlation at $r = .35$ (*control*), the difference between the five largest correlations was also small (*role* = .46, to *change* = .58). So, although there were differences in the size of MSI subscale correlations with these well-being-related outcomes, from a risk-assessment perspective there were no strong grounds for clearly prioritising factors based solely on these. However, in the complex work environment it may be more instructive to consider the stress-risk factors together, rather than individually.

Multiple regression

Multiple-regression should, theoretically, allow assessment of the relative importance of the stress-risk factors in relation to the chosen outcome and several studies have used this with MSI data and GHQ-12 (e.g. Guidi et al., 2012; Houdmont, Kerr, & Randall, 2012; Kinman & Wray, 2014). Table 11 summarises regression analyses for MSI factors in relation to both distal well-being/psychological health outcomes (GHQ & JRWB) and intermediate outcomes (*job satisfaction* & *job stress*).

Table 11: Multiple regression analyses with MSI subscales as 'predictors' of GHQ, JRWB, job stress, & job satisfaction

MSI subscale	GHQ (-)	JRWB (+)	Job stress (-)	Job satisfaction (+)
Demands	-.20**	.20**	-.53**	.02
Control	-.07*	.11**	-.13**	.12**
Manager support	-.03	.13**	.00	.20**
Peer support	.06	.02	-.04	.05
Role clarity	-.19**	.13**	-.04	.17**
Relationships	-.22**	.20**	-.06	.12**
Change	-.14**	.21**	-.01	.19**
Summary statistics				
Multiple R	.32	.49	.40	.42
Adjusted R^2	.31	.49	.40	.42
F	92.41**	193.16**	133.31**	145.69**

Standardised beta coefficients shown; ** $p < .001$; * $p < .01$;
(+) denotes that higher scores indicate better conditions/well-being; (-) higher scores indicate worse conditions/well-being; all MSI subscales scored so higher = better;

For well-being-related outcomes, the strongest 'predictor' of GHQ was *relationships* ($\beta = -.22$; $p < .001$) and JRWB was *change* ($\beta = -.21$; $p < .001$). *Demands* and *relationships* were prominent in each, but for these analyses, all regression coefficients were small-to-moderate in magnitude, based on Cohen's (1992) effect size 'rules-of-thumb'. What can also be seen from these analyses is that there no substantial difference in effect magnitude among the strongest 'predictors' for these two variables, the exception being *manager support*, which was significantly related to JRWB, but not GHQ. As would be expected, the seven MSI stress-risks accounted for more variance in job-related (JRWB; adjusted R^2 = .49) than general psychological health (GHQ; adjusted R^2 = .31).

However, analyses with intermediate outcomes (i.e. variables that would be theoretically antecedent to well-being; DeJoy et al., 2010) as dependent variables, showed some contrasts. *Demands* was the strongest 'predictor' of *job stress* ($\beta = -.53$; $p < .001$), ahead of *control* at $\beta = -.13$; $p < .001$), with no others significantly related. Conversely, *demands* showed no relationship with *job satisfaction* $\beta = .02$; p = .40). This is in line with

findings from Marcatto et al. (2016) and suggests that the choice of outcome variable could substantially alter conclusions.

Crucially, however, given the strength of correlations between some MSI subscales (e.g. *manager support* and *change*; $r = .68$, in the present study) the amount of shared variance between predictor variables in relation to criterion variable (e.g. GHQ-12) is likely to affect the results. For example, several published studies using multiple regression with the MSI in relation to GHQ-12 echo the finding here that *manager support* was not significantly related to GHQ-12 when entered into analysis together with the other six subscales (Guidi et al., 2012). This is at odds with a large body of evidence for the influence of managers on the psychological health of their staff (National Institute for Health and Care Excellence, 2015). Models that consider the mediated – as opposed to direct – effects of stress-risks are likely to better represent the pathways by which they relate to well-being related outcomes (e.g. Allisey, Noblet, Lamontagne, & Houdmont, 2014, in relation to intention to quit. See also Hudson, 2015). For example, these suggest that stressors such as *demands* have their effects on psychological health via *job stress*, while the effects of *manager support* and *relationships* appear to occur via *job satisfaction* (see appendix D, p.331 for a model based on this data, from Hudson, 2015). However, this introduces further complexity for the identification of priority stress-risk factors, which was not practical in this instance.

There were limitations to this analysis, as described, but taken across the four analyses there were some factors that were prominent in most – if not all - and it was the findings from these four multiple-regression analyses that were summarised in the report presented to PublicOrg. Overall, this suggested that *demands* and *change* appeared to be prominent across the majority of analyses, while *manager support* and *relationships* were also among

the stronger 'predictors' for some of the outcomes. However, it was clearly articulated by the researcher in the report and presentation of findings to PublicOrg that there were limitations to the statistical analysis and therefore should be taken as indicators rather than objective facts. It was also stated that these should be considered alongside the other sources of data, such as the qualitative data discussed subsequently.

Qualitative baseline survey data

The survey offered respondents the opportunity to comment via three (optional) open-text questions (the total number of responses to each question is shown in brackets): -

1. "*What is the most stressful aspect of your role*?" (993 comments; 70% of survey respondents)

2. "*What could [PublicOrg] do to improve the well-being of staff*?" (849 comments; 60% of respondents)

3. "*What does [PublicOrg] currently do well with regard to staff well-being*?" (661 comments; 46% of respondents)

In terms of the stress-risk assessment, the first question was considered most important as it was intended to facilitate the identification of key issues – enabling participants to either expand upon on the stress-risks already covered by questionnaire or highlight things that were not. This question is therefore the main focus of this section, although a summary of the other two questions is provided. These questions generated a large amount of data so this thesis focuses only on the main themes, with tables summarising the data are provided (pages 150, 153, & 156). 1,041 participants (73%) commented in response to at least one of the questions, with a combined total of 2,505 comments across all three.

The open-text questions were used to provide PublicOrg with an additional perspective to the Likert-type question in identifying the key stress-risks. This qualitative analysis was intended to be primarily descriptive and not an in-depth exploration, but a way of both corroborating the quantitative data and expanding on it to provide PublicOrg with further insight into the issues.

Comments for each question were analysed separately, using template analysis (King, 1998) – a form of thematic analysis (King, 2012) - with individual comments categorised depending on their content. Template analysis allows the *a priori* identification of themes (i.e. categories) providing some initial focus, along with the flexibility to add to or develop these throughout the process (Poppleton, Briner, & Kiefer, 2008). This was particularly relevant here as the stress-risk assessment was based on the seven MSI factors, themselves drawn from a large evidence-base, and these formed the seven *a priori* categories. For example, for the first question, comments related to caseloads would be categorised under the demands heading, while a comment about incivility between colleagues would be categorised under the relationships heading. However, the flexibility to incorporate additional themes provided by employees was also considered important and this would not be possible using content analysis, so a new category was created when a comment mentioned something outside these predetermined categories (e.g. senior management) Some participants mentioned more than one 'stressful' aspect, and so comments were allocated to more than one category as appropriate. Analysis of other open-text questions was done in the same way albeit without *a priori* categories; unlike psychosocial stressors, they did not have the same degree of evidence or understanding regarding the themes these questions might yield. Overall, this approach enabled the quantification of the data giving PublicOrg an easy-to-understand overview of the findings, while the categories provided a

way of organising and presenting the issues and themes that related to each (Mays & Pope, 1995).

Open-text question 1: 'Stressors'

"What is the most stressful aspect of your role?"

Due to the number of comments and issues that were raised by open-text questions, only a summary of the most frequently raised issues are discussed here, beginning with the most frequently raised stressor.

Demands/workloads

The most apparent finding from the comments was that demands/workload-related issues were the most frequently raised source of stress. This comprised three relatively clear 'subthemes'. Researchers have previously distinguished between 'quantitative' and 'qualitative' demands (e.g. Karasek, 1979), and two of the subthemes echoed this differentiation, with the most commented aspect relating the volume or pace of work: i.e. 'quantitative demands' (Jex, 1998).

Many of these quantitative demands-related comments specifically referenced the impact of budget savings, and the addition of duties that would previously have been carried out by staff/posts that had been lost in the cuts.

- *"Having more duties given to me that were not previously my responsibility and expecting me to do a job that previously had 3 people doing it."* (participant T1:412)

Similarly, others mentioned the additional administrative burdens linked to these organisational efficiencies, as well as those perceived to have been introduced for performance monitoring purposes. Cloutier et al. (2008) highlight these administrative

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duties, added without the elimination of role-specific tasks, as 'invisible' tasks that contribute to greater work intensity (Andersen & Westgaard, 2013).

- *"Increased admin taking me away from face to face work with clients. It really worries me that [PublicOrg] is increasingly target driven"* (participant T1:1143)

Another theme referred to the challenging or emotional nature of the work – i.e. 'qualitative demands'. For example, the emotional demands of supporting vulnerable people; dealing with abusive customers; or managers trying to support their staff, deal with staff conflict and/or deliver changes within their services/teams.

- *"Working with disorganised families or responding to crisis situations"* (participant T1:160)

- *"Customers getting angry or aggressive due to hold/wait times and unable to get through on the phones due to not enough staff to answer the phones."* (participant T1:222)

- *"Having 'difficult' conversations with staff."* (participant T1:295)

Inevitably, some comments touched on both the *amount* and *type* of work, where workloads added further pressure to the particular challenges of the role.

- *"Having to make decisions that affect the rest of children's lives in very short spaces of time…"* (participant T1:7)

Notably, however, an additional theme related to expectations: duties had often increased as staff numbers were reduced, yet targets and expectations remained the same. Approximately a third of demands-related comments included reference to expectations: being asked to reduce their expectations of the organisation, in relation to pay for example, but this was not reflected in reduced expectations of them. Wood and Ogbonnaya (2016)

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highlight the relevance of the post-recessionary conditions in this as consequent staffing and resource reductions move the effort-reward ratio in the 'wrong' direction, by decreasing rewards or increasing demands.

- *"Reductions in staffing but not reflected in reductions in expectations."* (participant T1:359)
- *"Needing to do extra hours on regular basis to manage workload. This becomes an expectation and not something that is recognised."* (participant T1:1119)

Although this could be considered distinct from 'demands' itself, the comments covered by this category were all made in reference to workloads.

Change

Numerous comments explicitly acknowledged the impact of austerity on the availability of resources and the difficulties the cuts had caused for PublicOrg. However, although the need for cuts and changes was acknowledged, the second most frequently raised issue related to how these had been managed and communicated. Aside from the stress of the changes themselves, lack of communication, and a feeling of not being consulted or listened to, were common themes. Additionally, when consultation had occurred there were comments from some staff who they felt it was merely a formality, echoing findings of Smollan (2015) where consultation was viewed as insincere.

- *"…all the changes being implemented no one tells us anything no one tells our managers, anything, when we raise this issue senior management states that we have been consulted throughout processes but we have not. They don't listen to what we say..."* (participant T1:784)

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- "*The feeling that decisions have been made without consultation and when consultation happens the decision has been made and our consultation is a tick box exercise.*" (participant T1:749)

Managers

It was notable, considering that manager support was not related to psychological health in the multiple-regression analysis, that the fourth most frequently mentioned stressor was line management. This ranged from lack of support, feedback or recognition regarding work/performance, to more overtly negative behaviours and their overall 'management style' (e.g. disrespectful way of speaking to staff).

- "*[…] poor management and leadership. We do not have team meetings, or staff 1-2-1's, and have not had an appraisal undertaken this year.*" (participant T1:436)
- "*Inconsistent leadership from immediate line manager ranging from almost no direction/instruction on some tasks to micro-management that borders on patronising on others.*" (participant T1:635)

The prominence of managers in the comments was also underscored by the fact they were also the third most frequently mentioned aspect in relation to the '*what do PublicOrg do well…*' question. The literature tends to focus on managers as a stressor (e.g. Skakon et al., 2010; Wager et al., 2003), but this emphasises that they can also be a real resource for staff – as recognised by NICE (2015) – providing support and looking out for employees' well-being.

- "*My direct line manager is very easy to talk to and is probably the main reason I have stuck at my job*" (participant T1:97)
- "*Managers are good at speaking with staff about their wellbeing and noticing when you are stressed or 'not yourself'*" (participant T1:1251)

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Senior management were also mentioned as a stressor; these comments highlighted slightly different issues to those relating to line managers/supervisors, and were considered distinct, but are briefly highlighted here under the umbrella of management. There were frequent links and overlaps between the topics covered by comments throughout the dataset, and senior management and the aforementioned 'unrealistic expectations' theme was a good example.

- *"Unrealistic expectations of senior leadership and constant pressure from them to improve performance of the teams I manage without any real support."* (participant T1:482)

- *"Senior management are more concerned with targets than quality of work we deliver. They are more concerned with staff's absences rather than the reason why staff are on sick leave."* (participant T1:1298)

In fact, several respondents' comments specifically contrasted positive perceptions of their own line manager with those towards senior management.

- *"I have a very supportive management team who I respect and enjoy working with. [PublicOrg's] very senior managers appear indifferent."* (participant T1:911)

However, there were also several comments that appeared to be from a senior management perspective[5] about the difficulties of having to implement enforced changes while knowing the impact it would have on staff.

- *"Making cuts to organisations funding that will result in job losses or residents no longer receiving the support they need. The feeling that you're having to implement decisions that will impact on the lives of others"* (participant T1:138)

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[5] It was not possible to precisely determine the occupational level of staff completing the survey, so this based on whether respondents indicated that they managed staff who also had management responsibilities, and in some cases was inferred from the comments themselves.

Research understandably tends to focus on the effects of downsizing on those at the receiving end, but Smollan (2015) identifies the role of those responsible for implementing cuts as an under-researched area: the 'grim reapers' (Clair & Dufresne, 2004). Indeed there were clear parallels between some of these comments and those of 'frontline' staff concerned about the impact their decisions would have on their clients (e.g. comment from participant T1:7, on page 145).

Job insecurity was also raised frequently as a source of anxiety. Under the circumstances, it was also perhaps unsurprising that comments that referenced job security concerns often also referenced change and how it was managed. However, comments included under this category were those that specifically related to job insecurity itself, and uncertainty was the main theme.

- *"The uncertainty of the immediate future, seem to be living year to year as to whether we will have jobs"* (participant T1:15)
- *"At present, the situation surrounding the organisation in terms of cuts is more stressful than the job itself."* (participant T1:1124)

A related quantitative aside to these comments echoes the scale and consequences of the economic pressures facing PublicOrg as survey data showed 67% of PublicOrg respondents agreed that they worried about job security. Just 18% agreed they felt that their job was secure, compared to 57% who disagreed. This is in contrast this with the most recent WERS (2011) survey where 'only' 18% felt their job was *not* secure.

Table 12 summarises the qualitative data collected in response to this question. Based on the quantification of this qualitative data, demands and workload-related concerns were the most frequently cited source of stress, with 62% of respondents to the 'most stressful'

question highlighting it. However, workloads-related comments were not as simple as merely the volume or pace of work; although these comments represented almost half of responses within this category (48%), 34% of comments related to unrealistic expectations and 28% to the nature of the job (e.g. emotional demands)[6].

Table 12: Summary of 'most stressful'-related comments & themes

Issue (# of comments)	Illustrative themes/quotes
Demands (618 comments)	The sheer volume of work • Meeting unobtainable targets • Volume of work due to staff cuts and covering sickness absences • Not enough staff to allow leave or to complete workload within timescales • Worry about taking leave, as not enough staff to cover your work while off. Workload builds up. • Getting everything done within the time available • Worry that the quality of work suffers as there is so much to do High expectations/targets, but fewer staff/resources • Short-staffed, but expected to provide the same service • Constant expectation to take on more and more responsibilities as people leave, without recognition of existing workload/responsibilities • Reductions in staffing but not reflected in reduced expectations The nature of the job • Emotionally draining – supporting vulnerable people • Working with people, often people in crisis - very hard to let go once you leave work • Managing staff and continually implementing changes (usually unpopular ones) • Not having enough time to support staff • Dealing with conflict and HR issues • Dealing with abuse from the public/angry customers • Paperwork/admin/duplication of paperwork
Change, & how it is managed (166)	• Lack of information/follow-up • Initiatives introduced, that stop or peter out without any explanation • Constant changes, rumours, and uncertainty • Not being asked/listened to • All the changes being implemented, but no consultation or communication • If consultation happens, feels like decisions already made: tick box exercise
Job insecurity (103)	• Job insecurity • Uncertainty about the future • The cuts. No one really knows what is happening and it can be very unnerving • Living in a constant state of anxiety, because of the uncertainty.
Managers (97)	• Managers not knowing what we do or how much work we have coming in • Unapproachable, lack of support and encouragement • Pressure from managers • Being told you are lucky you've got a job • Lack of supervision/appraisals
Poor relationships (62)	• Relationships between colleagues, and lack of respect • Management not dealing with bullying/disrespectful behaviour • Ideas/suggestions for improvements immediately dismissed or ridiculed

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[6] Note: some respondents commented on more than one aspect, so figures add up to more than 100%.

	• Staff negativity
Senior management (62)	• Senior management don't know what we do
	• Lack of visibility/not approachable
	• The way the senior managers speak to/deal with staff under them
	• One rule for 'them' and another for frontline staff
	• Constantly changing senior management priorities
Role (45)	• Being unclear about my role and what is expected of me
	• Unclear objectives, which constantly seem to be changing without any real understanding of why we are doing what we have been told to do
Lack of recognition (29)	• Lack of appreciation/recognition of how hard staff are working under difficult circumstances
	• Feeling that my job is not understood or valued by the organisation
	• Lack of appreciation of staff effort and little communication, except when anything goes wrong…
	• Blame and criticism for failure to hit targets, rather than praise for hard work
Physical environment (25)	• Hot-desking/lack of own desk space
	• Lack of parking
	• Poor lighting/heating
	• Open plan offices
Lack of control (23)	• Having to rely on other people to in order to do your job: e.g. not returning e-mails or phone calls, missing deadlines
	• Difficult to manage time due to the reliance on other people/clients
	• No flexibility in hours – used to be available, but not now.
Support from colleagues (21)	• Colleagues not pulling their weight
	• Staff not completing work in time, which affects your work
	• Constantly chasing up responses from colleagues
Resources (19)	• Increased demand has not been met with adequate resources
	• Having to provide increasing support to the front line services with ever decreasing resources
	• Fewer staff
	• Poor IT equipment
Unqualified for tasks (15)	• Not having the required skills to complete the jobs of colleagues who have left
	• Unrealistic objectives and being asked to perform highly important tasks without knowledge or training to do so
(Un)Fairness (12)	• Inconsistent application of flex-working policies/cannot access flex-working
	• Workloads not evenly allocated
	• Favouritism

Open-text question 2: 'Suggestions'

"What could PublicOrg do to improve staff well-being?"

Many of the themes from the *'most stressful'* question were echoed here and continued to discuss the stressful aspects of the job raised previously, in addition to making suggestions. Table 13 summarises the number of comments/suggestions relating to each of the categories listed.

Considering the proportion of comments identifying workloads as the most stressful aspect of work, the most notable feature of this following question was that it was not the most frequent target for suggestions to improve employee well-being. However, 184 proposed suggestions specifically relating to reducing workloads and/or expectations (or simply proposed that workloads should be reduced) while 84 comments suggested increasing staff and/or resources in order to ease those demands. It may be that many respondents that highlighted workloads as most stressful simply recognised the restrictions affecting PublicOrg, and that suggestions related to reducing workloads or recruiting more staff were unlikely to be feasible. However, reducing expectations and targets were a related but distinct topic for suggestions; similarly recognising and valuing employees were also commonly requested. Some of this linked specifically to the additional demands and challenging circumstances employees' were working under, whereas others covered recognition in a more general sense – i.e. being praised for good work and being valued.

On the other hand, more staff proposed improving communication (194) and staff consultation/involvement (180), and these comments were frequently made with specific reference to the ongoing changes affecting PublicOrg over recent years. Again, many respondents acknowledged the difficulties faced by PublicOrg, but unlike workload-related

suggestions, indicated that communication and staff involvement were areas that could feasibly be improved.

- *"Better communication on change - people know things are difficult and change is needed, but it often starts off with a big bang and then all comms fizzle out"* (participant T1:1008)

Table 13: Summary of suggestion-related comment themes

Category (& number of comments)	"What could PublicOrg do to improve staff well-being?" Illustrative themes/quotes
Communication/ openness (194 comments)	• Communicate more effectively with staff • Keep staff updated • Be more open and transparent • Would prefer honesty, even if the news is not good • Plus some comments regarding the need for some positive news about the future
Reduce expectations and/or workload (184)	• Accept and acknowledge that fewer staff means less can be done: levels of work cannot be maintained with fewer staff/resources • Put less pressure on staff • Stop setting/reduce unrealistic expectations • Realistic workloads
Listen to/involve/consult staff (180)	• Consult/involve staff • Involve staff in changes • Take time to listen to staff/show our views are valued • Listen to staff ideas: frontline staff know about their jobs/services and have important knowledge that can help • Provide a forum/platform for staff to have a say • Ensure staff can speak up without fearing the consequences
Value staff/recognition (107)	• Recognition of the work people are having to do under difficult circumstances • Reciprocate: notice and appreciate staff effort and loyalty • Recognition that staff are often working extra hours and putting in extra effort just to keep things going • Recognition for people with good sickness absence records • Treat people as human beings, rather than a number
Stop cuts/pay freezes, improve job security (99)	• End pay freeze • Cost of living pay-rise • Stop cutting services and jobs
More staff/resources to do job (84)	• Provide adequate resources to do the job • Admin support for paperwork • More staff to deal with extra workload
Progression, training & development opportunities (77)	• Develop staff • Advertise internal jobs so all staff have an opportunity • Provide opportunities to utilise skills: many committed staff who would welcome an opportunity to develop themselves and contribute to improving things for [PublicOrg] • More training

Health & well-being-related (72)	• Awareness days on mental health and general health advice to ensure staff are aware of services and how to access them • Include stress/health & well-being in monthly 1-2-1's • Time during work for staff to do healthy activities • Providing option to raise any fears/concerns without having to go directly to management • Lunchtime/after work classes (e.g. exercise/relaxation/stress buster) • Encourage the taking of breaks: make it 'ok' to take a proper break, without being made to feel guilty or worrying that it looks like skiving • Drop-in health & well-being sessions
Flexible working (51)	• More consistent/transparent application of flexible working policies • Bring back the option of flexi-hours/working from home • Wider application of flexible working across departments
Planning/decision-making (47)	• Better long-term planning • More timely decision-making
Better support from manager (43)	• Hire managers who can manage/deal with people rather than because they were good at a different job • Ensure managers have 'people skills' • Ensure managers provide constructive feedback to staff about how they are doing
Senior management: visibility + more supportive (43)	• Ensure senior management know all their staff • Senior management/member visibility and accessibility • Ensure senior managers/members have a real knowledge of roles/services they manage.
Improve the physical work environment (35)	• Better lighting/ventilation • Reconsider open-plan offices • Improve hygiene/cleanliness of offices
Stop hot desking (34)	• Provide permanent desk – wasting time trying to find and set up space • Allow staff to personalise their desk space
Fairness/consistency (32)	• Treat all staff fairly with regard to flex-working/attendance management • Treat managers and frontline staff the same
Follow-up (27)	• Listen: but also act upon it • Staff well-being survey: ensure something is done with/about the results • When introducing initiatives, give them time to work • Follow-up staff issues/complaints
Support/training for managers (23)	• Training for managers to effectively support staff • Stress/mental health awareness for managers • More support/advice for managers dealing with staff stress/mental health problems
More staff activities/events (14)	• Staff development days • Team-building • More team meetings
Improve access to parking (13)	• Stop charging for parking spaces at work when a car is required to do the job • More/better access to parking
Gym/activity discounts for staff (13)	• Discounted/free local gym/activities • Promote awareness of existing discounted activities/facilities
Bullying: how to report and deal with it (11)	• Ensure staff concerns around bullying are dealt with effectively • Avenues for reporting bullying concerns and independent advice/support • Publicise information about bullying and what to do • Provide training/information about recognising the signs of bullying

Open-text question 3: 'Positives':

"What do PublicOrg currently do well with regard to well-being?"

Given the topic of the survey and the current situation, it was anticipated that there would be fewer comments for this question, but there were still numerous positive aspects reported. The most frequent theme (180 comments) indicated either 'don't know', or 'nothing', but these have not been included here. With regard to the things employees actually did feel that PublicOrg did well, there were specific comments about services such as Occupational Health, counselling, and physiotherapy, while there were over 70 comments that simply appreciated the amount of support available to staff. Flexible working options were also valued by many staff, both making their lives easier, or being seen as a nice 'perk' that was appreciated.

Manager support was the third most frequently cited positive aspect, and was clearly appreciated by many staff. In numerous cases, where good support from line managers or colleagues was mentioned it was explicitly contrasted with the lack of support they felt from senior managers or PublicOrg as a whole. In an organisation of this size, where there are perhaps fewer opportunities to build individual relationships between senior management and frontline staff, this is perhaps not unusual and such findings resonate with those of van Wanrooy et al. (2013). There were also some comments recognising that senior managers *do* care, but there was a 'lack of follow-through' in terms of demonstrating it.

On a related theme, a small number of employees did indicate that PublicOrg as an organisation does genuinely care about staff (six comments). Despite the large number of comments, discussed previously, indicating dissatisfaction with communication and listening to staff, 13 staff also commented that PublicOrg does listen and that it

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communicates well with staff. The well-being survey itself was also cited as an example that PublicOrg was listening and evidence of genuine concern (ten), as highlighted in the previous chapter, although there was a cautionary note to some comments regarding the need to ensure it was followed-up and action taken.

Furthermore, despite the cuts and uncertainty, 40 comments mentioned different aspects of their employment terms and conditions/work policies. Supportive sickness absence policies, carers leave, and annual leave entitlement were all recognised.

Table 14: Summary of positives-related comment themes

Category (& # of comments)	Illustrative themes/quotes
The support available to staff (153 comments)	A good range of support available if needed. E.g. • Good Occupational Health Stress service • Counselling service helpful • Smoking cessation • Physiotherapy service
Flexible working options (86)	• Flexible working hours arrangements really helpful/valued • Helps with work-life balance • Helpful with meeting deadlines/targets
Support from manager (80)	*Manager support.* • Immediate line manager is always supportive • Line manager is easy to talk to • Regular one-to-ones/supervision to raise/discuss issues
Good terms & conditions (40)	Good terms & conditions/supportive of staff well-being • Annual leave entitlement • Good sickness/absence policy • Carers leave • Pension
Peer support/colleagues (26)	• Supportive colleagues on my team • Colleagues are the biggest resource
Good communication (13)	• Communication is good • Communication is open and honest
This survey (10)	• A step in the right direction/shows the organisation is listening • A chance to get views across
Intranet (6)	• Good source of information • Provides links for specific issues.
PublicOrg cares (6)	• They are supportive of staff • Genuinely concerned for staff well-being and policies support this
PublicOrg listens (5)	• Willing to listen to staff concerns • Staff briefings/updates: allow us to have a say
Training (4)	• Good support for training • Offers training (although limited)

Summary of qualitative findings

Workload and change management-related comments were the most frequently raised issues; whether it was highlighting the most stressful aspects of work or suggesting areas for improvement. As previously mentioned, while demands/workload were by far the most commonly cited stressor at work, for many staff it appeared to be the expectations as much as the workload itself. This was reflected in suggestions, which asked for more realistic expectations that reflect the cuts to services and resources. Better and more open communication, as well as consulting, involving, and listening to staff were also common themes, with over 350 comments indicating these as areas for improvement.

Unsurprisingly, given the cuts that have had to be made, fears about job insecurity and the future, as well as the lack of staff and resources were also often mentioned. However, some explicitly recognised the challenges faced by PublicOrg in relation to this, while there were also several comments indicating that they felt it was doing a good job under the circumstances. A related theme, which came up across the three questions suggested there was also acknowledgement and concern from some managers of the pressures their staff were under, the impact of these, as well as how to support them.

Recognition and valuing staff was also often mentioned, and although not one of the most frequently raised stressors, it was among the most common areas suggested for improvement; some commented in relation to 'rewards' while others raised it in relation to being 'recognised' for the extra effort that many staff were putting in under difficult circumstances. Again, this sometimes related back to 'expectations' where some staff felt the extra effort was expected/taken for granted, or at least not acknowledged.

Many employees also recognised and valued the support that was available to staff, as well as the benefits available. Managers were also highlighted as a source of 'stress' or support, across the three questions, while there were also calls for managers to be given more help to support their staff.

Summary of baseline assessment findings

The stress-risk assessment was conducted to provide baseline levels of the psychosocial environment to help PublicOrg to target interventions as part of their new long-term staff well-being strategy. It also provided information about the psychological health of the workforce as researchers have suggested the importance of first assessing whether interventions are actually needed (Taris et al., 2003); ceiling effects where psychosocial conditions and employee psychological health are generally good provide less scope for improvements (Nielsen & Randall, 2013).

Quantitative findings indicated that mild-to-moderate mental health problems (measured by the GHQ-12) affected a large proportion of the sample (32.8%), confirming the organisation's motivation to support the well-being of their employees. The greater tendency for dissatisfied employees to respond to this type of survey (Goodwin et al., 2013) could mean the sample presents a more negative view than one that included the whole workforce. Therefore, the findings should be interpreted with due caution, but still suggest there is a substantial minority of staff who appear to be affected. Nonetheless, deciding which factors are most important to address was more challenging.

Prior to discussing the 'accuracy' of the baseline assessment in identifying stress-risk priorities, the main baseline findings are discussed, as well as the process by which conclusions were arrived at. Overall, the main issues highlighted by the survey were

demands- and change-related stressors although others were prominent, albeit to a lesser extent (e.g. managers).

The quantitative results showed inconsistencies in the main risks identified, depending on the method of analysis and interpretation used; for example, the *relationships* subscale was ranked as 'top' stress-risk based on multiple regression (with GHQ as dependent variable) and sixth out of seven based on mean subscale scores. Such discrepancies could substantially alter the conclusions drawn from a risk assessment and the consequent actions, so is an important issue. Survey-based stress-risk measures may be popular (Mellor et al., 2011), but given the lack of clarity on how to analyse and interpret MSI findings and implement the HSE's stress management standards (Cox et al., 2009), this is a major gap. Therefore, it would be inappropriate to place undue confidence in the quantitative findings alone. Although mean scores do at least indicate the perceived frequency of exposure, this by itself does not necessarily equate to severity because stressors are not necessarily equivalent (Clarke & Cooper, 2004). Meanwhile multiple-regression, although more 'sophisticated', may bring statistical or conceptual problems that mask the true relationships between stressors and strain-related outcomes.

The consistency with which demands-related issues featured in employee comments tallies with Mazzola et al's (2011) review of qualitative research into work stressors, which showed it was a common and prominent stressor. However, the prevalence in the present study was markedly greater than research reviewed by Mazzola and colleagues (62% of respondents commented on workloads here, compared to up to 24% in Mazzola et al., 2011). As covered previously, demands are more than 'just' the amount or pace of work (Karasek, 1979), but the questions asked by the MSI *demands* subscale predominantly relate to those quantitative demands. Crucially, therefore, qualitative data also suggested

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it was more complex than only the pace and amount of work and many respondents highlighted qualitative demands (e.g. emotional demands), as well as concerns about expectations, rather than simply the workload itself. E.g. expressing dissatisfaction that expectations and targets had not reduced in line with the loss of staff and resources, alongside a lack of recognition of the extra work they were doing.

Such distinctions are crucial when developing interventions to target relevant issues and really underlines the need to supplement the MSI with other sources of data, and the relevance of looking beyond only quantitative demands (Glaser et al., 1999). For example, pressures on the organisation to maintain services with fewer resources mean recruiting more staff to directly reduce workloads (as per Rickard et al., 2012) was not realistic option for PublicOrg. However, addressing expectations or recognition may be more feasible.

This may link to the other recurring theme across the data and analyses; change and how it was managed, with qualitative data indicating that poor communication and lack of employee participation were particularly important factors. It was interesting to note the prominence of demands, change, and job insecurity, in light of a quote from Smollan's (2015) qualitative study of organisational change that could almost have been written with this baseline assessment in mind: "*[o]rganizational change in public sector organizations has been shown to be a source of strain when it occurs frequently and when it creates uncertainty, job insecurity and fear of a further increase in workload*" (p.310).

There was inconsistent 'support' from the quantitative data for *manager support* as a key stressor in this assessment. Qualitative data indicated managers were among the most frequently raised stressors, yet the open-text question asking what PublicOrg did well

regarding employee well-being indicated that support from managers was also the second most frequently commented 'positive'. So managers were important for many employees, contradicting some of the findings from multiple-regression and supporting a growing evidence base for the importance of the role of line managers (e.g. Gilbreath & Benson, 2004; NICE, 2015). Further consideration of some of the issues this raises, as well as more general discussion of risk-assessment issues are followed-up in the discussion chapter.

'Screening' phase main aim: did the baseline assessment identify the main issues?

The complexity and subjective nature of stress-risk assessment means determining the accuracy of the baseline assessment's identification of the main issues is not an exact science. This is particularly so in light of the limitations of the quantitative data and analysis; there was concordance with the qualitative data, but there was also some divergence.

Numerous risk-assessment challenges have been outlined here and the HSE acknowledge the limitation of relying only on data from the MSI, so this only confirms their advice. Ideally, these 'additional sources' would extend to more than this selection of open-text questions included as part of the survey, to include data from focus groups or interviews. Via the steering group, it was planned that PublicOrg would hold large-scale feedback sessions across the organisation, enabling staff to respond to the survey results. Shortly after the presentation of survey findings, it became apparent that these focus group sessions would not be taking place due to lack of resources, hence the reliance on the survey findings. Therefore, the collection of qualitative data from open-text questions as

used here proved crucial, and may offer an expedient compromise in situations where focus groups or similar are not feasible.

Having analysed the data and presented the report to PublicOrg, some early support for the 'accuracy' of the results was provided at the first steering group meeting after the survey; the union representative indicated that findings were very much in line with their day-to-day experience of issues raised by their members in the course of their duties. Nonetheless, conclusions regarding the effectiveness of the MSI and the risk assessment as a whole would have been more robust if employees had been able to review and provide feedback on the findings (e.g. via focus groups). Crucially, however, there were further indicators that can provide evidence regarding the accuracy of the baseline assessment.

Data obtained from the <u>follow-up</u> survey – 14-months later – provide employees' views on how closely the findings represented their experience. Naturally, this data was not part of the baseline assessment but is reported here as it offers perhaps the clearest evidence regarding the accuracy of the survey findings. As part of the follow-up survey, participants were asked whether '*the survey results showed the main issues experienced by staff*' (A brief summary of the findings that PublicOrg shared is included in chapter six, p. 171). Of those who had seen the survey results, 59%[7] agreed that results showed the main issues, compared to just 7% who disagreed (with the remainder indicating 'neither agree nor disagree'). The majority felt the survey findings did reflect the main issues, and responses to the open-text question asking employees to comment on the survey findings tended to echo this: -

- "*Results as expected, most people feel overworked and stressed*" (participant T2:108)

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[7] Note that only 34% of the 1,008 employees who completed the survey at follow-up indicated that they had seen the survey results shared by PublicOrg. This is discussed further in chapter six.

- "*Was not surprised by the results*" (participant T2:530)

This evidence tended to support the general conclusions from the baseline assessment, which was encouraging, but it should be reiterated that this information was clearly not known at the time these findings were being used to identify priorities. It was perhaps telling that there were no overtly positive comments about the findings despite their apparent accuracy; this might have been somewhat surprising, but there were issues regarding the timeliness of the feedback of survey results to staff (discussed in the following chapter).

Moreover, the view that findings were 'correct' was not held by all; a small number of respondents (four) felt it understated the issues while, conversely, three employees voiced surprise at the apparent scale of them.

- "*I don't think it really showed the full extent of staff unhappiness, stress levels and frustrations*" (participant T2:760)
- "*I was shocked at the extent of the problems the survey suggests that the issues are more widespread*" (participant T2:159)

However, despite some divergent views regarding the size of the 'problems', there were no comments at all expressing disagreement with the specific issues the survey highlighted. Nonetheless, it is worth repeating that findings were based on the organisation as a whole, rather than by departments – an acknowledged limitation in terms of targeting and tailoring intervention activity. Such limitations have also been noted previously by Anderzén and Arnetz (2005), and were also expressed by some respondents.

- "*Impossible to comment on whether they show the main issues - this is a huge and varied organisation - I have no kind of overview of how staff in general experience*

things. I know enough to know things are different in different departments."

(participant T2:842)

This section provided an overview of the baseline data, as analysed and reported by the researcher. Overall, the assessment appeared to converge on a number of issues common across the organisation; furthermore, the findings were generally found to have identified the main issues by respondents at follow-up.

'Screening' phase supplementary aim: did the baseline assessment facilitate employee participation?

The 'initiation' and 'screening' phases each had a key aim, but they were also seen as an opportunity to devise and implement a process that would facilitate some form of employee involvement. Therefore, the scope for the baseline assessment survey alone to promote a sense of involvement in the process, by itself, was limited (Grawitch et al., 2009). This was a large part of the rationale for the original plan to include the focus groups. The latter often form a core component of interventions (e.g. Coffey et al., 2009; Mikkélsen & Saksvik, 1999) and have the dual purpose of contributing to the identification of stress risks and giving employees an active role in this and the development of solutions. However, there were ten comments in response to the open-text question asking what PublicOrg did well regarding staff well-being, which indicated that at least some people felt the survey was positive and/or did do something to foster a sense of involvement. E.g.: -

- "*Consultation like this [survey]*" (participant T1:1190)

- "*Staff surveys give staff a voice which is a good thing*" (participant T1:504)

Furthermore, there were comments in the steering group meetings expressing the need for the survey, from union representatives, as well as positive feedback about it. A number of

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limitations have been described, such as the response rate and challenges interpreting the quantitative data, but despite these it was notable that a large proportion of participants (73.1%) responded to at least one of the open-text questions. At the outset of the research, the qualitative data was originally cast in the role of supplementing the quantitative data, to corroborate it, but took a more central role as the challenges of interpreting MSI data became more apparent. Finally, the survey itself was mentioned as a positive by several respondents who welcomed it a sign the organisation was taking notice of their views, although some of these were tempered with scepticism about whether the survey would lead to further action. In conclusion, it was known a survey was relatively limited in the sense of involvement it could provide, but based on this there is evidence that it did provide an opportunity for employees to participate in the study and have their say. So, at that stage, it appeared that it did – within its acknowledged constraints – do a reasonable job of this. However, communication (or 'having a say') is a two-way process and requires evidence of 'listening' (Benson & Brown, 2010). So while it could be viewed relatively positively at this stage, in that it did appear to provide the *opportunity*, it is important to note that the process was not over and that employees would need to see subsequent evidence that their 'voice' had been heard (Kalla, 2005).

Conclusion

Notwithstanding the challenges of interpreting the baseline survey results, the assessment suggested a number of factors; i.e. demands and workload-related concerns came through strongly, as did those around change and how it was managed – including job insecurity. Other issues such as manager support were also prominent, and there were also overlaps between them.

Although definitive conclusions are not possible, the evidence presented does suggest it did highlight the main issues despite the problems that were noted. However, the lack of focus groups to follow up the survey missed an opportunity to provide greater involvement, and also to further corroborate the findings from the survey and increase confidence in them. The baseline assessment stage was therefore less successful in its 'secondary' objective of providing employees with a sense of participation in the process; the survey itself provided it in a basic form, and some employees were appreciative of this opportunity. Nonetheless, once risks have been identified the challenge then is to translate these into actions, and not all risks may be feasible to address. This is the topic of the following chapter.

CHAPTER SIX: PLANNING & IMPLEMENTATION

Introduction

The main aim of this phase was the translation of baseline assessment findings into appropriate plans and actions, and the chapter summarises activity taking place between the baseline and follow-up surveys. While the previous 'screening' phase provided the means by which PublicOrg might tailor their response, this phase determined whether and how actions were directed at priorities. Nielsen and Randall (2012) ask '*to which extent were activities tailored to the organisation*?' and this chapter describes the intervention activities PublicOrg implemented in response to the baseline findings[8], addressing this key question. Of course, this rests on the efficacy of the baseline assessment phase, and although there were caveats to the findings, the project proceeded on the basis that conclusions from the baseline were broadly indicative of the main stress-risks.

- **Main aim of 'planning' phase**: to tailor intervention activity to the needs identified from the 'screening' phase

Implementation itself was also clearly an important function (Nielsen & Randall, 2013), and its effectiveness is operationalised here as the 'reach' of intervention activity (i.e. were people 'exposed' to interventions) and the perceived quality (i.e. employees' ratings). Objective data on the implementation was not available to the researcher, but these variables have been proposed and utilised in previous research as an appropriate indicator that show meaningful relationships with outcome variables (e.g. Hasson et al., 2014; Randall et al., 2005; Sorensen & Holman, 2014).

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[8] The researcher was not involved in the selection, development, or implementation of interventions.

- **Main aim of 'implementation' phase**: to ensure the 'reach' and 'quality' of intervention(s)

A further objective for this stage was to communicate the findings of the baseline survey to employees in order to facilitate the process by keeping employees informed (e.g. Nielsen et al., 2007; Pignata et al., 2014). Congruent with the research as a whole, the chapter also highlights process-related issues and events relevant to this stage, concluding with a discussion of how effectively this phase met its aims. Planning and implementation are considered as two separate phases in Nielsen and Abildgaard's (2013) framework, but for reasons covered subsequently the information was comparatively limited; therefore they are merged here and discussed in a single chapter (table 15 provides an outline of main events and intervention activity during this period).

Table 15: What was expected/planned versus what was implemented…

What was planned	What was implemented	Other events
Sept 2014: T1 survey closes	**Sept 2014:** baseline survey closed	-
Oct 2014: survey report and findings presented to steering group	**Oct 2014**: Survey report and findings presented to the steering group. Findings well received; steering group stated their commitment to act on the findings; planned meeting two weeks later to discuss development of action plan, and strategy for dissemination of results to staff (meeting did not take place)	-
Dec 2014 – Jan 2015: communicate results to employees	This did not occur until April/May 2015, with no communication from PublicOrg to their staff advising of delay.	**Jan 2015**: Announcement of further large budget cuts affecting PublicOrg

Nov 2014 – Apr 2015: Development of interventions in response to survey findings. To include focus group-style sessions with employees to communicate results, possible actions, & to get staff feedback on them	- Focus group/feedback sessions did not go ahead.
	 - **Jan 2015**: Action plan finalised by HR.
	 - Three main intervention activities devised and implemented by PublicOrg at different points.
	    o **Dec 2014 onwards**: *ChangeComms* (sessions to improve communication of changes)
	    o **Feb 2015 onwards**: Mental Health awareness sessions for managers
	    o **Apr 2015 onwards**: new 'performance & development framework' (PDF) implemented (changes to supervision & appraisal with a focus on improving recognition and feedback)
		Apr 2015: Large department (400 staff) moved to an external organisation as part of restructure
		 Apr 2015: Implementation of new employee travel policy/scheme
		 May 2015: Story in local media about stress at PublicOrg, which was based on baseline survey results.

Aug – Sept 2015: Follow-up survey	Follow-up survey delayed until Oct 2015.	-

Intervention planning phase

The baseline survey closed in September 2014 and the steering group met again in late October to discuss the report and findings provided by the researcher. Despite the results being potentially negative from the organisation's perspective, they appeared to be appreciatively received by the steering group; the steering group chair, senior managers, and union representatives agreed the findings were useful and would be acted upon. However, a steering group meeting two weeks later, to discuss sharing findings with employees and decide priorities/actions, did not take place as planned (see table 15 for brief chronological summary of plans and activity). Once again there was an unanticipated gap of several months before the next steering group meeting was arranged, with difficulties finding a time and date when all steering group members were available a particular issue. This is mentioned at the beginning of the chapter because it did have implications for evaluation, in that internal discussions meant information on how decisions were arrived at was somewhat obscured from the researcher's view. However, the researcher was able to obtain evidence to evaluate the links between baseline findings and actions, but firstly the interventions planned by PublicOrg are described.

The three initiatives

PublicOrg developed three initiatives in response to the baseline findings; although this process took place internally, the brief summary of survey findings (eventually) released to staff outlined the main issues as PublicOrg interpreted them[9] as well as how they planned to address them. This shows some of the rationale behind the interventions and thus the links between the baseline findings and actions they put in place. The document was succinct and provided a series of bullet point 'headlines' highlighting the key points

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[9] Note that PublicOrg were also responsible for deciding how and what they shared with employees.

PublicOrg had taken from the report, followed in most cases with their plans to address them. As an internal document it is not possible to reproduce it here, but an adapted overview of the findings as communicated to employees is provided in table 16 and table 17, which show the main issues and suggestions, as reported by PublicOrg to staff, and how they were intending to address them.

A description of the interventions PublicOrg developed and implemented is provided subsequently, along with the rationale for them and the variables that could be expected to improve as a result of each. Because interventions were decided and developed by PublicOrg and not specified *a priori* these target outcome variables were primarily based on PublicOrg's rationale for them. For example, ChangeComms was introduced specifically to improve communication about change, in response to the survey findings citing change and job insecurity as issues, so therefore *change* and *job insecurity* were selected as target variables. However, some brief theoretical rationale is included to justify the researcher's selection of other variables that may also be affected by interventions.

Table 16: Summary of main survey findings shared with employees, showing main points & PublicOrg's planned response
(paraphrased from PublicOrg's summary of findings)

Main issue(s)…	…and what is being done	Researcher comment
Workloads: the single most commented issue was work demands	"Ways of supporting staff with this are being looked into and further information will follow"	To the best of the researcher's knowledge no further information did follow during the research period.
Communicating change	"We are working at being better at this. Recent **'ChangeComms'** briefings are one example"	ChangeComms described on page 172
Managers: almost one-third of staff felt they were not given enough supportive feedback from managers	The new **Performance Development Framework** [PDF] was launched in April [2015]	PDF is described on page 173
Two-thirds of staff are worried about losing their job	We recognise these are difficult times with the ongoing cuts. We're doing everything we can to keep you up to date with what is happening and to involve and consult staff more (e.g. **ChangeComms**)	
One-third of staff feel they are under some degree of psychological stress	**Mental Health Awareness briefings** are taking place across PublicOrg for staff and managers	Described on page 175
98% are clear about their job role but less certain about goals and objectives	Communications will be improved to be clearer about what [PublicOrg] wants to achieve.	This was linked to PDF, although role clarity was not an issue that featured prominently in the baseline findings

Table 17: Employee suggestions and how they are being addressed

You said we need to…	PublicOrg response	Researcher comment
1)…improve communication and openness, 2)…listen and consult/involve staff more, and	The ChangeComms briefings will provide a new way of involving staff in important decisions.	
3)…reduce workload expectations,		No specific response mentioned
4)…value and recognise your hard work	We are reviewing staff benefits and implementing a new system [PDF] to help recognise your efforts.	

ChangeComms

ChangeComms was based around a regular series of sessions held with employees of all levels, where key messages regarding change and budgetary issues could be communicated and discussed. These sessions were in response to staff concerns about how change was managed and communicated, and also in the knowledge that further budget cuts and related changes were imminent. Crucially, it also required relatively few resources, which in this context was important. The first ChangeComms sessions took place approximately two months after the survey results were presented to the steering group. These sessions were for employees to hear directly from senior managers about proposals and potential future changes, as well as enabling them to ask questions. ChangeComms was not – to the best of the researcher's knowledge – mandatory, but were held during work time and employees were allowed time to attend. There was no set format as it could depend on how much information was to be communicated, but based on discussion with a steering group member sessions were between 30-60 mins.

Employees were also encouraged to suggest ideas for how best to manage some of the challenges faced by the organisation and staff. ChangeComms was focused around these sessions, but also included the more general remit of improving change-related communication with more regular updates on change via line managers and PublicOrg's intranet and email. Giga, Cooper, et al. (2003) identify communication-initiatives as an example of organisational interventions that may reduce uncertainty and facilitate the process of change, particularly when senior management support is demonstrated. 'Change' was the main variable targeted by PublicOrg, along with job insecurity; however, POS and PSC were also identified by the researcher as potential indicators of ChangeComms' efficacy. Dollard and Karasek (2010) suggest PSC may act as an 'action

exposure scale', and involving and listening to employees are components covered by PSC and POS so it was anticipated that successful implementation would also affect these. In fact, there was a case for suggesting that both POS and PSC could be affected by all of the interventions, as they were introduced in response to the survey and are thus indicative of listening to staff and taking them seriously, as well as concern for their well-being - also assessed by these measures.

- **Target variables**: *Change*, *job insecurity*
- **Other potential outcome variables**: POS, PSC

Performance & Development Framework (PDF)

PDF was developed to address the perceived lack of recognition and feedback highlighted by staff in the baseline survey, in addition to improving manager support, so the variables that were expected to be affected by PDF if it was effective were *manager support*, and POS (e.g. item: '*my employer values my contribution*'). Prior to the development of PDF, there was no unified framework for supervision, appraisal, and development, so there were inconsistencies in how this was managed across PublicOrg. PDF was intended to guide managers in this, and ensure it was done in a consistent and supportive manner, with a focus on PublicOrg's values and recognition of employees' efforts. Although centred on an 'annual review', the overall process was based on ensuring regular and ongoing discussions ('supervisions'), that some employees felt they were not receiving (based on baseline qualitative data). PDF incorporated several elements; although it is not possible to reproduce the detail from PublicOrg's action plan documents, a brief summary of its key elements are provided here; PDF included discussion of performance against agreed targets/objectives, but departed from previous approaches particularly in its greater

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emphasis on the provision of clear feedback on performance and progress, and that conversations should emphasise what has been done well. This was in addition to recognition for achievements, good work and effort, as well as discussion of opportunities and support for career development. From the action plan document: "[*PDF is*] *designed to be supportive and developmental*." These elements were explicitly embedded within new guidance documents and templates for managers, including a proforma to guide discussions with employees. If employees were having more structured conversations with their managers about performance and obtaining feedback on their performance then *role clarity* could also be expected to improve (Whitaker, Dahling, & Levy, 2007). This was something PDF was also attempting to address, based on the survey findings fed back to staff, although it was not an issue that was particularly prominent in the baseline assessment.

Two further variables not explicitly targeted by PDF were also identified by the researcher as a potential outcome of PDF; one was *change*; this was based primarily on the properties of the *change* subscale. It was anticipated that with PDF attempting to promote more regular discussion between employee and line manager, it may simply provide employees with more '*[…] opportunities to question managers about change at work*' (from MSI item 26). So it was not explicitly targeted by PDF but could plausibly be affected by it. Thirdly, PSC could be considered as an indicator that PublicOrg had listened and responded to the concerns of employees (Dollard & Bakker, 2010), via the survey results, by initiating PDF to address some of them. However, this would be based more on PDF being seen by employees as evidence for PSC, rather than being improved because of any properties of PDF itself.

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Because PDF was not a discrete event, and was administered by their line manager, there was the chance that employees may have experienced the new supervision/appraisal process but not been aware of its name (Performance and Development Framework). Therefore the question asking about employees' exposure/rating of PDF also alerted participants to the fact that PDF was the new format that had replaced the old appraisal/supervision process.

- **Target variables**: *manager support*; *role clarity*; POS;
- **Other potential outcome variables**: *change*; PSC

Mental health awareness sessions for managers

These mental health awareness sessions were set up in response to the prevalence of mild-to-moderate mental health problems in the sample (32.8% scoring above the GHQ-12 threshold), as well as employee concerns about the lack of manager support. However, it was anticipated even before the baseline survey that some form of mental health awareness training for managers could form part of any intervention strategy. This was an issue that had been raised during the initial steering group meetings by the union representative, who reported that many managers were unsure how to deal with stress and mental health problems of staff; this had been raised by both subordinates and some managers themselves. The importance of addressing mental health stigma and increasing support for employees is also emphasised in guidance from NICE (2009a, 2015). PublicOrg had existing capability in the delivery of mental health-related programmes, so this intervention was also realistic and did not require external resources to deliver it. The sessions were delivered by a senior employee with extensive practitioner experience in the field of mental health, as well being experienced in delivering this type of training in a wide range of settings. The session were at an introductory level in a two-hour seminar-

style format; they were aimed at raising awareness of the prevalence of mental health problems, the signs and symptoms, how to instigate conversations about stress and mental health with colleagues and direct reports, and further sources of support, as well as when and how to refer people on to them. Notably, these sessions were voluntary.

- **Target variables**: *manager support;* mental health-related items (i.e. confidence and willingness to discuss/disclose stress and mental health issues)

The survey

The baseline survey was not an intervention *per se*, but was intended to underpin and facilitate the process. However, it was anticipated that successfully identifying the main issues and feeding these back to staff could be associated with improvements to POS, PSC, *change*, and CAOC. POS and PSC, because it should indicate to staff that they are being listened to and their well-being concerns were being taken seriously (Dollard & Bakker, 2010; Rhoades & Eisenberger, 2002). *Change* could also be affected as the survey amounts to a form of consultation. CAOC could be improved in a similar way to POS and PSC, as it has been negatively associated with employees' perceived involvement in decision-making (Brown & Cregan, 2008) and information sharing (Qian & Daniels, 2008).

Summary of 'planning' phase

Main aim: did intervention activity address issues identified from the 'screening' phase?

The key aim of the planning phase was to ensure interventions were tailored to the needs identified in the baseline assessment. These three initiatives were clearly linked to the survey findings, and aimed to address some of the main issues but, crucially, not all.

Demands/workload-related issues were acknowledged by PublicOrg in the summary they shared with staff, but no activities addressing it were put in place during the research period. This is also discussed further in the chapter conclusion.

'Implementation' phase

Main aim: maximise the 'reach' and 'quality' of interventions

Implementation 'reach' (i.e. employees' exposure to interventions) and quality was assessed by the questions in the T2 survey that asked whether employees had experienced each intervention and, if so, how they rated it (positive, negative, or neither). The effects of exposure to and perceptions of interventions is the subject of more detailed analysis in the following 'effect evaluation' chapter. But on the basis that wider intervention 'reach' (i.e. employees' exposure) was indicative of more successfully disseminated organisational interventions and that ratings were an indicator of better implementation, these can give a general gauge of how effectively interventions were implemented.

Based on the T2 survey ($n = 1,008$), 76% of respondents reported having experienced ChangeComms, while 75% indicated they had experienced the new PDF approach to supervision and appraisal. Although this clearly indicates that not all employees had been exposed to these interventions, it had reached a large proportion of the workforce. The mental health awareness sessions had been attended by 9% of the sample, although these were more not aimed at the whole workforce.

In terms of how these interventions were perceived by employees, 41% of attendees rated the mental health awareness sessions as positive, with 8% negatively. The T2 survey asked attendees for their comments on the mental health awareness sessions and generally these were also positive and indicated it was good to raise awareness. For example;

- "*It reinforced that the steps I have been taking to support staff is appropriate*" (participant T2:181)

- "*It has helped and given me greater awareness around mental health issues which I can now go onto share*" (participant T2:346)

However, in determining why these sessions may not have 'reached' more managers, a small number of respondents felt they did not need such training. Similarly, some others who did attend felt the material was too basic and did not meet their needs, although PublicOrg's aim for these sessions was to be an entry-level introduction for managers who lacked that knowledge. Tellingly, finding the time to attend was also problematic for some, as was awareness of the sessions. For example: -

- "*I have not been made aware of these briefings and would not have had time within my diary to attend even if I did know*" (participant T2:309)

Although employees' exposure to PDF and ChangeComms was much wider than the mental health awareness sessions, as they were intended to be, the ratings were more mixed. ChangeComms was rated positively by 28% of respondents, while 18% rated it negatively; PDF was rated positively by 22% and negatively by 17%. The majority, therefore, perceived PDF and ChangeComms as 'neither positive nor negative'.

The follow-up survey included a further open-text question asking for employees to comment on the baseline findings and/or the action taken by PublicOrg since the previous survey: '*Do you have any comments about the results of the last survey, or the actions taken by PublicOrg since the last survey?*'. There were just 60 comments provided in response to this question (i.e. 6% of T2 sample provided a comment; summary of main themes shown in table 18).

Table 18: Summary of employee comments about survey findings & subsequent actions

Category	Main theme of comments *'Do you have any comments about the results of the last survey, or the actions taken by PublicOrg since the last survey?'*
Scepticism/disappointment about actions (20 comments)	• Actions resulting from the previous survey were not directed at the main causes of stress-related problems • Actions haven't addressed the main issues/points from the survey • Nothing done to improve the stress/pressure staff are under • Did not know what had been done since the first survey • Nothing would come from the survey/results and that it was a token effort/tick-box exercise
Promotion/awareness of survey & results (18 comments)	• Survey results were extremely delayed • Survey results were hard to find/'buried' • Did not know about survey results • Would like to have seen full report, rather than summary
Survey issues (15 comments)	• Survey length (too long) • Concern over anonymity and why some questions were asked • Survey is ok, but staff need more of a say ○ E.g. focus group, working group, staff drop-in sessions • Survey is positive
Accuracy of survey findings (12 comments)	• Results as expected • Shows widespread issues – staff overworked • Does not show the extent of staff unhappiness
Other (8 comments)	• Several comments answered other questions. E.g. most stressful issues, or suggestions.

This represents a small proportion of the sample, but comments tended to focus on the survey findings themselves. However, where comments did reference the actions taken by PublicOrg, it was generally negative or reflected a lack of knowledge of actions.

- "*Staff are under a great deal of stress and pressure. Nothing has been done to improve this*" (participant T2:452)

- "*Don't feel anything has been done to address the issues it [the survey] raised*" (participant T2:542)

- "*The issue is a scepticism around action taken as a result of the feedback given, and a general lack of communication /engagement / leadership at the top of the organisation*" (participant T2:433)

Furthermore, there were no qualitative comments specifically referencing either PDF or ChangeComms in response to this question. This was perhaps surprising given there were both positive and negative ratings given by respondents to the closed questions about them. This is explored further in the discussion, as there were both methodological and process-related lessons stemming from this. However, PDF and ChangeComms were mentioned by comments in response to other questions.

- "*I did enjoy the mental health awareness and budget meetings*" (participant T2:224)

- "*The new appraisals scheme with its apparent focus on progression may be a positive change, it feels too early to say though*" (participant T2:986)

However, few of these comments were positive and they tended to relate to *how* as much as *what* was implemented. For example, in relation to PDF: -

- "*New appraisals - no explanation offered just introduced*" (participant T2:180)

- "*The change to the PDF was muddled and unclear about when it should have been implemented*" (participant T2:16)

- "*Make sure supervisors are carrying out regular supervisions and appraisals (PDF) as this does not happen on our team'* (participant T2:30)

This suggests that at least some employees had not connected the actions to the first survey, and the survey feedback, and that at least some managers were not kept informed about it, and that implementation was variable – as evidenced by 'only' 75% of employees reporting they had experience of PDF.

Communication of survey findings

A clue as to why employees might not have connected the baseline survey and consequent actions was suggested by the proportion of the T2 sample who reported having seen PublicOrg's summary of survey findings, at only 34%. The accuracy of the findings has already been discussed in the previous chapter, and was seemingly reasonable, but awareness of the findings among staff was lacking.

A further aim of this phase was to ensure employees were informed about the baseline survey findings; in keeping with the importance of open communication to the process (Schabracq, Cooper, Travers, & van Maanen, 2001) the researcher had emphasised the need to share these. It had been discussed in early steering group meetings where the researcher underlined the need to act quickly and provide at least some information to employees about the survey results as soon as possible. The steering group had agreed on this but at the point the results were presented to the steering group at least one member cautioned against releasing the results until plans to address the findings were in place. In other words, they wanted employees to be able to see how PublicOrg were going to respond to the issues raised. Other members wanted to act swiftly, as agreed, and at least share some interim 'bitesize' survey details while the more comprehensive report and plans were finalised. However, the meeting to discuss action plans and communication of survey results to staff was postponed and contributed to a long delay in communicating the

survey findings to staff; approximately seven months after the baseline survey. No information about the survey or delay was communicated to staff in the meantime.

With no immediate prospect of steering group meetings, the researcher had to contact a senior member of the steering group to find out what (if anything) was happening. As a result, and in the absence of full steering group meetings, several one-to-one meetings between the researcher and individual steering group members were held to discuss progress and plans in the interim. Based on these meetings, it appeared that delays were due to internal 'discussions' about how to communicate the findings. Interestingly, however, PublicOrg had been very active in other areas in the meantime; they developed a new organisational employee well-being strategy, and action plans based on the survey findings were completed three months after the survey. The interventions – described previously – were also put together during the same period. So, although the fact this took place internally may have made evaluation more challenging, the project itself was actually progressing.

When PublicOrg's summary of survey findings was (eventually) shared with staff, seven months after it had closed, it was featured on PublicOrg's intranet homepage for one week (summarised in table 16, on page 171). However, much of the feedback from staff related to its lateness and the difficulty in locating the findings on the intranet.

- "*[the survey results] were very delayed and then rather buried on the intranet*" (participant T2:33)
- "*It could have been promoted better; I don't know if it was promoted but a colleague found in somewhere on the intranet because we were wondering what had come of it*" (participant T2:985)

- "*Only saw these at the point that another repeat survey was being promoted. Maybe I missed it before then but it felt it was only being shared as another one was being done*" (participant T2:305)

Similar sentiments were echoed in other comments and acknowledged by members of the steering group in both one-to-one meetings and a full group meeting – i.e. that it was not well-publicised and required navigating several intranet pages to reach the relevant section once the one-week promotion period had passed. Notably, this was something they explicitly intended to rectify with the follow-up survey findings, underlining the importance of process evaluation in providing feedback to guide future actions.

Other events/competing changes

The effects of concurrent changes and events have been shown in numerous studies and highlighted as an important contextual element to document. In keeping with studies such as Olsen et al. (2008), there were three in particular that the researcher was aware of during this intervention project.

The announcement of budget cuts: Five months after the baseline survey, further government cuts were announced. Organisations in several previous intervention studies have been affected by such announcements (e.g. Olsen et al., 2008; Petterson & Arnetz, 1998), confounding the interventions themselves. However, it should be noted that the announcement itself was not unexpected, but the scale of the cuts was seemingly higher than anticipated. This meant the likely loss of over 200 posts in the following 12 months, in addition to those lost since 2010. It is believed that the majority of these posts were accounted for by voluntary redundancies. Contextually, this only brings employee concerns about their job security and change from the baseline survey into sharp relief. Indeed, based on informal discussions with steering group members it was the knowledge

that more cuts were imminent, in conjunction with the survey identifying change/change management as an issue that led to the development of ChangeComms.

Restructuring event: Six months into the implementation period, one of PublicOrg's community-based services, employing approximately 400 staff, became an independent entity and were no longer part of PublicOrg. Detail of this transition are not known to the researcher, but the employment terms and conditions of employees in this service were transferred to the 'new' organisation.

Local media reports: Findings from the baseline survey had been obtained and unfavourably reported by local media; however, contrary to concerns from the researcher that PublicOrg may have been reluctant to risk more negative publicity by running the follow-up survey, this was not the case. In fact, these media reports were not unexpected to some steering group members, which makes their willingness to include potentially headline-grabbing questions all the more telling. It also provides a further potential reason why the steering group may have wanted to take particular care with how they reported the survey feedback to staff.

Similarly, although some of the baseline survey findings may have been negative or difficult for PublicOrg to hear, they listened and acted on them. Contrast this with the senior management in Coffey et al. (2009), who closed a project down because the findings from the baseline assessment phase of their intervention study were too contentious. The suppression or avoidance of potentially controversial findings is hardly isolated (e.g. Sedley, 2016), so although there are practical aspects that can be criticised during the project, PublicOrg demonstrated their commitment and support throughout.

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Introduction of a new policy

Although there were efforts to improve consultation, such as ChangeComms, there was also a new work-related travel policy introduced between the two surveys. There were 21 comments in the T2 survey about a lack of consultation meaningful regarding its introduction, and the apparent impact it had had on their work.

- *"The introduction of the [new scheme] has caused me a lot of stress and worry. It is frequently difficult to get cars which puts additional stress and pressure on me to do my role efficiently"* (participant T2:339)

- *"The scheme makes our job very difficult and adds extra time and stress, but management have not listened to our concerns and we feel that we have been treated as trouble makers and whingers"* (participant T2:556)

- *"The changes that are made without proper consultation are stressful e.g. the [new scheme] that has been introduced. This has complicated my working week immensely in recent months. Improper consultation has led to a system that was poorly introduced"* (participant T2:961)

This serves to highlight the potential for concurrent changes to interfere with intervention outcomes, particularly contrasting the focus on communication and consultation of ChangeComms with the sense that came from employees' perceptions of the new scheme.

Conclusion

The question of whether intervention activity was addressing the problems of the workplace is an important one (Jordan et al., 2003). Intervention activity was based directly on the baseline survey findings and was tailored, to an extent, but at the organisational-level rather than to departments or job roles. While this can be criticised, it was recognised from the beginning of the project that this would be the case due to the

available resources; chiefly, the time and staff resources that were seemingly available to undertake such an approach. It should also be acknowledged that the researcher, too, had some limitations in terms of what was feasible within the project timescale, although this issue was secondary to the aforementioned. Overall, PublicOrg's actions were based on issues from the baseline survey (e.g. change and communication, recognition, manager support). In terms of implementation, ChangeComms and PDF reached the majority of employees, as intended, although their perceptions of interventions were mixed. However, employees' awareness of the survey findings was poor, with only a minority having seen them.

The links between survey results and actions could be seen in their communication of findings to employees, which also briefly indicated how PublicOrg were addressing them. The development of a long-term organisational well-being strategy, which the survey findings featured heavily in, was also indicative of how the baseline findings and plans were linked. The communication of survey results to employees did explicitly acknowledge that work-demands was the most cited issue from the survey and was being 'looked into', as well as stating that information 'would follow' regarding the issue. However, although this issue was acknowledged it was not targeted by any initiatives, and nor did this promised follow-up to staff take place during the intervention period. It appears the lack of intervention activity to address workloads was based on resources; some issues seemed to lend themselves to practical solutions whereas addressing workloads did not seem feasible at such a turbulent time. Nonetheless, the interventions were attempting to address some of the other prominent issues and, based on the researcher's informal meetings with individual steering group members, it was indicated this selection was influenced by what PublicOrg felt was feasible to target. Ideally, the

main stress-risk factors would be addressed, but there was logic to their decision to focus attention where they felt they could make a difference with so much pressure on resources and time.

In terms of implementation, the majority of employees reported having been exposed to PDF and ChangeComms, although approximately a quarter of respondents had not experienced them. The majority of respondents were neutral about these interventions (i.e. rating as 'neither positive nor negative'), with proportions of positive and negative ratings fairly similar. The following chapter analyses the effects of exposure and ratings in relation to psychosocial conditions and well-being-related outcomes. Baseline survey findings were delayed and poorly communicated to staff, seen by only one-third of the T2 sample. Furthermore, there appeared to be an apparent lack of connection in the eyes of employees between the T1 survey and subsequent actions by PublicOrg.

However, events such as the media story further emphasise that not only to intervention projects not take place on a blank slate, but may also be subject to other externally generated pressures. In summary, although implementation efficacy itself could not be directly observed, the evidence here suggested mixed implementation, which is in line with previous research (e.g. Aust et al., 2010; Hasson et al., 2014; Sørensen & Holman, 2014) and further justifies the need to conduct the analyses in the next chapter based on employees' reported exposure and perceptions of interventions (Hasson et al., 2014; Randall et al., 2005).

CHAPTER SEVEN: EFFECT EVALUATION

Introduction

This chapter represents the 'effect evaluation' phase of the process evaluation "*where data are analysed to determine the effects of the programme*" (Nielsen & Abildgaard, 2013, p. 11). The main function of this chapter is to assess *whether* and *where* the interventions had any effect on employees' perceptions of the psychosocial environment. That is, were there changes to psychosocial conditions and/or well-being-related outcomes, and did those changes correspond to those psychosocial conditions targeted by the interventions? In this case, the latter is addressed in two ways, by looking at both employees' exposure to interventions and their perceptions of them.

The 'screening' phase (chapter five) considered data from the full T1 survey ($n = 1,425$) to determine the main psychosocial stress-risk factors, while the analyses in this chapter focus on participants whose baseline and follow-up surveys could be linked together (i.e. the repeated-measures sample). Surveys were linked using the anonymised self-generated identification code questions on each survey, described in the methodology chapter, which yielded a total repeated-measures sample of 552. This represented 38.7% of the original 1,425 respondents at T1, and 54.8% of the 1,008 who completed a survey at T2 (see appendix G for descriptive statistics from the full sample of the T2 survey; p.334).

The analysis described in this chapter progresses in three main stages. The first section simply looks at *if* there were changes to outcome variables across this sample between T1 and T2. This also includes an overview of qualitative data collected at T2.

- **Effect evaluation aim 1**: analysis of changes from baseline

However, it is the subsequent repeated-measures ANOVA's that represent the main feature, because looking beyond simple T1 versus T2 comparisons, it was anticipated that exposure to interventions and perceptions of them would moderate changes in the psychosocial conditions targeted by each intervention component (e.g. Randall et al., 2005). Due to the timescale of the project and previous research indicating that changes to distal outcome variables (e.g. psychological health) tend to take longer to manifest themselves, and lag behind improvements to psychosocial environment (e.g. Dollard & Gordon, 2014; Wall & Clegg, 1981) the focus is on the latter and particularly the variables that were 'targeted' by the interventions.

- **Effect evaluation aim 2**: The effect of employees exposure to interventions and their perceived quality

Because of the importance of context in interpreting outcomes, the final element of the quantitative analysis explores employees' pre-existing perceptions of the psychosocial environment (particularly T1 levels of CAOC), and its relationship to employees' subsequent involvement (i.e. exposure) and rating of intervention activity. Although these are pre-existing factors and as such relate to the 'initiation' phase, these analyses are based on the linked dataset of 552 and process evaluation data collected at T2, (i.e. exposure & rating), and therefore it made sense to report these analyses together. The chapter concludes with a discussion of potential intervention effects (based on interaction effects from statistical analyses).

- **Effect evaluation aim 3**: assess relationships between employees' baseline levels of cynicism about organisational changes and employees' engagement with intervention activity

Data screening

The analysis of pre- and post-intervention surveys here is based on the repeated measures sample of 552, and pre-analysis screening of data for the repeated-measures *t*-tests confirmed the univariate normality of the variables for the first analysis. Histograms suggested moderate skew in a small number of variables, but skewness and kurtosis statistics for all variables were within acceptable limits (i.e. skewness between 2 & -2, kurtosis between 7 & -7; West, Finch, & Curran, 1995).   Skewness for all variables at both time points ranged from 1.11 (GHQ-12 at T2) to -0.74 (*control* at T2), with kurtosis ranging from 0.98 (GHQ-12 at T2) to -0.50 (*change* at T2).

The suitability of the data for repeated-measures ANOVA, based on the assumption of homogeneity of variances, was assessed using guidelines from Baguley (2012). Levene's test is oversensitive in large samples, such as the present study, so it is recommended that the standard deviation of dependent variables for each level of the between-group factor should be no more than twice as large as another (Baguley, 2012); in all cases they were within this threshold and so met the criteria for homogeneity of variance.

Because the repeated measures sample represents only a proportion of employees who completed the first survey, the potential effects of participant attrition and the possibility of differences between T1-only and repeated measures sample were assessed. Independent *t*-tests were conducted on all study variables, as well as gender, age, and full/part-time status with survey participation coded as 1 = both surveys, 0 = T1-only. *Control* was the only study variable that differed significantly between the groups: $t(1420)=4.19$, $p<.001$, with 'T1 only' ($n = 867$) participants having lower levels of *control* (mean = 3.45; SD = 0.77) than the 552 employees who participated in both surveys (mean = 3.62; SD = 0.70). See appendix E (p.332) for *t*-tests of T1-only participants versus staff completing both surveys.

The same analysis was conducted on T2 variables, comparing those who completed both surveys with those only completing T2[10]. There were several significant differences between T2-only surveys and those completing both (at $p < .01$), with a consistent pattern of more positive scores for T2-only participants, for *demands*, *role clarity*, *change*, POS, and *job insecurity*. The one exception was *control*, which was higher (better) for employees who completed both surveys. The T2-only participants were also more likely to be full-time (see appendix F, for mean scores for participants completing T2-only versus those completing both surveys; p.333). As a consequence, independent *t*-tests comparing the full T1 and T2 samples are slightly more positive than the repeated measures *t*-tests shown in table 19, on the next page, with only *job insecurity* and JRWB (both improved) showing a significant change (appendix G for *t*-test summary table).

Only a selection of the variables measured here were targeted by PublicOrg's interventions, as described in the previous chapter, but the tables summarising findings include results for all of the main study variables. On the one hand, this provides transparency, but it also allows us to rule out (or not) the possibility that any statistically significant effects may be an intervention-induced Hawthorne/'halo-effect' (Sørensen & Holman, 2014); while changes to perceptions of psychosocial conditions can provide some evidence for intervention efficacy, the assessment of whether observed changes correspond to those conditions targeted by intervention(s) is also important to discern (Nielsen & Abildgaard, 2013). Evidence for this is strengthened when these changes are accompanied by a *lack* of change in 'irrelevant' variables (i.e. those not targeted by interventions).

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[10] This is based on employees who completed a T2 survey that could not be linked to a T1 survey using the self-generation identification code. Therefore it is possible that some participants categorised as T2-only could have completed both surveys but could not be matched due to insufficient (or incorrect) linking code information.

Comparison of pre- and post-intervention mean scores

Table 19 presents the results of repeated-measures *t*-tests to test for pre/post intervention changes. Based on $p < .01$, the majority of measures remained unchanged, with only *control* and *change* showing significant changes at $p < .01$ (both worsened), although as an indicator of general trends, there were also three variables that were significant at $p < .05$ (*job stress, peer support*, and *job insecurity*). Of these, only job insecurity showed an improvement. However, none of these changes reached even the $d = 0.2$ threshold indicative of a small effect size (Cohen, 1992).

Table 19: *t*-tests & effect sizes from comparison of T1 & T2 scores

Variable	Pre	Post	Difference (post-pre)	*t*-statistic	Effect size (Cohen's *d*)	Direction of change
GHQ (-)	13.87	13.86	-.01	0.03	0.00	-
JRWB (+)	3.11	3.11	.00	0.11	0.00	-
Job Stress (-)	2.91	2.99	.08	2.51†	0.10	Worsened
Job satisfaction (+)	3.58	3.56	-.02	0.68	0.03	-
Demands (+)	3.13	3.09	-.04	1.74	0.08	-
Control (+)	3.62	3.55	-.07	3.19*	0.14	Worsened
Manager support (+)	3.56	3.49	-.07	1.95	0.09	-
Peer support (+)	3.85	3.78	-.07	2.42†	0.11	Worsened
Relationships (+)	3.90	3.88	-.02	0.63	0.03	-
Role clarity (+)	4.04	4.04	-.00	0.26	0.00	-
Change (+)	3.01	2.91	-.10	2.85*	0.12	Worsened
POS (+)	3.18	3.16	-.02	0.70	0.03	-
PSC (+)	2.90	2.90	-.00	0.12	0.00	-
Job Insecurity (-)	3.67	3.59	-.08	2.34†	0.11	Improved
CAOC (-)	3.05	3.06	.01	0.70	0.03	-

Note: † $p < .05$; * $p < .01$; $n = 552$
(+) higher scores indicate better conditions/well-being; (-) higher scores indicate worse conditions/well-being

Therefore, from a solely outcome-focused perspective, the majority show either no change or a worsening in the outcome variable. Randall et al. (2005) make the point that a 'traditional' outcome-focused intervention analysis may end there, and would draw the conclusion that the initiatives were ineffective, or even potentially detrimental. However, by utilising the post-intervention process evaluation measures it is possible to assess the

potential effects of intervention 'reach' and how the intervention initiatives were perceived by staff.

T2 survey qualitative data

Table 20: Summary of main themes from T2 open-text questions

Question	The most frequently mentioned themes for each question
Issues: "What is the most stressful aspect of your job?" • **617 comments (61% of respondents)** • *T1 survey: 993* (70%)	• Demands/workload • Change and how it is managed/communicated • Job insecurity • Lack of/poor manager support
Suggestions: "What could PublicOrg do to improve staff well-being?" • **485 comments (48% of respondents)** • *T1 survey: 849* (60%)	• Improve communication and openness • Better consultation employee involvement • Value and recognise staff • Reduce expectations and/or workload
Positives: "Is there anything that PublicOrg currently does well with regard to staff well-being?' • **375 comments (37% of respondents)** • *T1 survey: 661* (46%)	• The support available • My manager/good managers • PublicOrg genuinely cares/are doing their best

Based on the comments provided by the full T2 sample (n = 1,008), the results of the qualitative analysis closely echoed those of the T1 survey (see table 1 for a summary of main themes for each of the three questions asked at both T1 and T2). The issues perceived as 'most stressful' were similar to the T1 survey; workloads were the most frequently mentioned aspect and, very similar to the T1 survey, it covered same three main 'sub-themes': the amount and pace of work; the increased pressure to reach targets and expectations that had remained the same despite reduced staffing and resources available; and the nature of the job – e.g. dealing with the public, managing/supporting their staff, or the emotional demands of supporting vulnerable people.

Once again change and the way it was managed was the second most frequently mentioned source of stress for staff; including lack of communication and consultation – some also acknowledged that consultation did occur, but felt that it was sometimes a 'tick-box' exercise. Again, the difficulties facing the organisation were recognised by some staff, but the sheer relentlessness of constant change, uncertainty and upheaval was an issue. Related to this, job insecurity was also among the most commented stressors.

Managers were identified as a source of stress for many staff – however, although some of these did relate to 'management style' (e.g. 'dictatorial', 'micro-managing'), many of these were concerned with the lack of availability or support from managers due to their workloads. There were also comments (from managers) that highlighted this issue in reverse – i.e. concerns about not being having the time to provide enough support to staff.

One difference from last year's comments was that the newly introduced staff work-travel scheme (described in the previous chapter) was also specifically picked out by 21 staff as a stressor. Some staff highlighted the difficulty this posed regarding their job and the extra work it added, while the process of consultation for this scheme was also raised as an issue.

The most frequently mentioned 'positives' were also similar to last year, with more staff responding that either they were unaware of what PublicOrg did well for staff well-being or asserted that PublicOrg did nothing. Again, for those who did identify positives, the most common topic was an appreciation of the support available, in the form of Occupational Health and counselling services. Flexible working options were also valued by some staff and many felt they were helpful with work-life balance/commuting issues,

while managers were also, once again, praised by many staff and were the second most frequently mentioned 'positive' regarding staff well-being.

Interestingly, there was one notable difference between the two surveys for the question of *'what do PublicOrg currently do well with regard to staff well-being?'*, there were 31 responses that made reference to the sentiment that PublicOrg genuinely cared about staff well-being or was trying to do something to support it. This compared to only six comments expressing the same view in the T1 survey. It should be clarified that these were not necessarily expressing effusive praise, but all recognised that efforts were being made.

- *"Overall I think [PublicOrg] genuinely do care about staff. There is definitely more/better communication with staff. Overall I'm happy in my place of work and feel [PublicOrg] is a good employer."* (participant T2:91)

- *"It tries to be a caring organisation. With the cuts and funding available PublicOrg is very limited to what they can do and offer to staff."* (participant T2:300)

- *"In fairness, the initiatives which occur periodically are well meant and perhaps of some benefit. In reality they do not suffice to address the core issues of stress and worry brought about by under-resource and job insecurity, and are as such little more than a sticking plaster."* (participant T2:414)

This cannot be considered definitive evidence for changes in employee attitudes towards their employer, as it represents only a small proportion of the sample, but was particularly notable when considering this increase alongside the smaller sample at T2. This does contrast with the lack of change in POS and PSC in the previous analysis, both of which are indicative of supportive organisational practices.

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Intervention exposure and employee perceptions

Repeated-measures ANOVA were used for analyses of intervention exposure and perceptions, with time (pre- and post-intervention) as the within-subjects factor for all analyses. Nielsen and Randall (2013) highlight the importance of assessing employees' exposure to and perceptions of interventions and are the focus of the main analyses. As described in the methodology chapter (chapter three), exposure to interventions was based on the T2 question '*overall, how would you rate the following actions taken by PublicOrg in the previous year…?*' and respondents indicated whether they had experienced it (i.e. whether they were exposed to the intervention or not). Respondents that indicated affirmatively were asked to provide their rating of it (i.e. perceptions: 'positive', 'negative', or 'neither positive nor negative').

Therefore, two repeated-measures ANOVA's were conducted for the each intervention to assess the effects of exposure to and perception of interventions (but not the mental health awareness sessions, for reasons discussed in the relevant section). For exposure, the between groups factor had two groups ('exposed' versus 'not exposed' to the intervention). Analyses of employee perception of interventions had 'rating' as the between-groups factor (three groups: 'positive', 'negative' or 'neither positive nor negative'). A note about the terms *exposed/exposure* used here; these are used in preference to terms such as participation simply because they are terms frequently used throughout the literature and thesis in a different sense (i.e. employee participation in the process). It also suggests an active level of involvement, when the measure used here can only really determine whether respondents reported 'experiencing' the intervention in some way (i.e. being exposed to it).

Effect sizes (partial η^2) are shown in the tables and reported in the text; Cohen (1988) suggests partial η^2 of 0.01 <> 0.05 would be classified as 'small', 0.06 <> 0.13 'medium' and $\geq$ 0.14 'large'. These were proposed only as 'rules of thumb' by Cohen and are not definitive, but mentioned here to aid interpretation.

Demographic variables are routinely used as control variables in organisational research (Atinc, Simmering, & Kroll, 2012), but age and gender were not controlled for here; quite apart from the argument that such factors should not be stripped from analyses (Pawson & Tilley, 1997), the public sector tends to have more female employees and the workforce also tends to be older than in the private sector (Colley, 2014; Institute for Fiscal Studies, 2014) so was considered to be a feature of the sample and population and not something to adjust for (Spector & Brannick, 2010). Nonetheless, to assess any potential effects of these demographics on the findings, post hoc re-analysis of the models described here were conducted, including gender and age as covariates. This did not alter the significance of any interactions or effect sizes for any of the analyses, and so only the original analyses are reported.

Table 21: Scale means, reliabilities, correlations for repeated-measures sample (Pearson's *r*)
T1 correlations shown below diagonal, T2 above diagonal; scale autocorrelations shown in bold on diagonal (*n* = 552)

		T1 Mean (SD)	T2 Mean (SD)	Reliability[a] (T1, T2)	Time 2 variables														
					1. GHQ	2. JRWB	3. Stress	4. Job sat	5. Dem	6. Con	7. Mgr.	8 Peer	9 Rel.	10. Role	11. Chg.	12. POS	13. PSC	14. Insec.	15. CAOC
	1.GHQ (-)	13.87 (6.27)	13.86 (6.37)	(.92, .92)	**.42**	-.42	.31	-.32	-.19	-.21	-.26	-.24	-.32	-.32	-.25	-.27	-.33	.20	.27
	2.JRWB (+)	3.11 (.75)	3.11 (.76)	(.92, .92)	-.38	**.63**	-.36	.48	.26	.30	.40	.35	.39	.38	.39	.44	.42	-.25	-.38
	3.Job stress (-)	2.91 (.92)	2.99 (.93)	(N/A)	.31	-.40	**.64**	-.28	-.51	-.23	-.24	-.24	-.27	-.23	-.20	-.18	-.19	.03	.15
	4.Job sat. (+)	3.58 (.86)	3.56 (.88)	(.84, .83)	-.19	.42	-.19	**.61**	.10	.33	.40	.32	.32	.33	.37	.41	.33	-.19	-.35
	5.Demands (+)	3.13 (.70)	3.09 (.68)	(.84, .86)	-.29	.33	-.55	.23	**.76**	.16	.22	.24	.28	.21	.23	.23	.24	-.05	-.13
Time 1 variables	6.Control (+)	3.62 (.70)	3.55 (.70)	(.83, .82)	-.14	.32	-.19	.33	.18	**.74**	.28	.22	.21	.23	.31	.23	.24	-.04	-.22
	7.Mgr support (+)	3.56 (.90)	3.49 (.89)	(.84, .85)	-.14	.34	-.18	.42	.19	.23	**.64**	.43	.37	.36	.44	.44	.38	-.15	-.33
	8.Peer support (+)	3.85 (.68)	3.78 (.71)	(.76, .77)	-.16	.32	-.16	.36	.22	.23	.48	**.64**	.41	.39	.36	.37	.30	-.17	-.27
	9.Relationships (+)	3.90 (.70)	3.88 (.73)	(.90, .89)	-.25	.34	-.19	.37	.25	.21	.41	.40	**.62**	.32	.33	.39	.30	-.21	-.28
	10.Role (+)	4.04 (.69)	4.04 (.66)	(.82, .82)	-.17	.27	-.17	.31	.15	.18	.33	.30	.21	**.65**	.36	.29	.29	-.19	-.23
	11.Change (+)	3.01 (.87)	2.91 (.88)	(.79, .80)	-.22	.38	-.19	.42	.21	.27	.50	.37	.30	.41	**.56**	.49	.47	-.23	-.40
	12.POS (+)	3.18 (.88)	3.16 (.85)	(.93, .92)	-.23	.42	-.21	.45	.22	.22	.48	.39	.36	.34	.46	**.59**	.47	-.20	-.42
	13.PSC (+)	2.90 (.82)	2.89 (.81)	(.83, .82)	-.24	.38	-.18	.39	.24	.20	.42	.32	.31	.29	.47	.49	**.55**	-.12	-.44
	14. Job insecurity (-)	3.67 (.89)	3.58 (.92)	(.77, .81)	.04	-.15	.05	-.13	.03	-.01	-.09	-.10	-.18	-.12	-.06	-.14	-.10	**.58**	.13
	15. CAOC (-)	3.05 (.81)	3.06 (.82)	(.92, .92)	.22	-.37	.18	-.34	-.12	-.14	-.34	-.26	-.26	-.26	-.37	-.40	-.35	.23	**.57**

Note: $p < .001$ for correlations of +/- .13 and above; $p < .01$ for +/-.10 and above; $p < .05$ of +/-.07 and above
(+) higher scores indicate better conditions/well-being; (-) higher scores indicate worse conditions/well-being
[a] Scale reliabilities based on *full* T1 and T2 samples (T1, *n* = 1,425; T2, *n* = 1,008)

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ChangeComms

ChangeComms was targeted by PublicOrg specifically to address employees' concerns about change and the way it was managed; i.e. communication, keeping people informed, and giving staff a say in the process. Part of their rationale for this initiative was also the concern about *job security*, although it was recognised that improving perceptions of job security itself might be beyond the scope of ChangeComms given that there were very real threats to this. Therefore it was anticipated that employees exposure to and perceptions of the ChangeComms initiative would be related to changes in the *change* variable, POS, in particular, as well as PSC, and potentially *job insecurity*. 81% of the repeated measures sample (*n* =447) reported that they had taken part in ChangeComms.

Table 22: Repeated Measures ANOVA, showing interaction effects of exposure to ChangeComms

Variable	Not exposed (*n*=105)		Exposed (*n*=447)		Time x exposure effect size (partial η^2)
	Pre	**Post**	**Pre**	**Post**	
GHQ (-)	14.28 (6.0)	14.30 (6.4)	13.77 (6.3)	13.76 (6.3)	.00
JRWB (+)	3.10 (0.7)	3.04 (0.8)	3.11 (0.7)	3.12 (0.8)	.00
Job stress (-)	2.92 (1.0)	3.09 (1.1)	2.91 (0.9)	2.97 (0.9)	.00
Job sat. (+)	3.70 (0.9)	3.48 (0.9)	3.56 (0.9)	3.58 (0.9)	.01*
Demands (+)	3.17 (0.8)	3.05 (0.8)	3.12 (0.7)	3.10 (0.7)	.01
Control (+)	3.39 (0.8)	3.40 (0.7)	3.68 (0.7)	3.59 (0.7)	.01
Manager. sup. (+)	3.58 (1.0)	3.51 (1.0)	3.55 (0.9)	3.49 (0.9)	.00
Peer sup. (+)	3.90 (0.7)	3.85 (0.7)	3.83 (0.7)	3.77 (0.7)	.00
Relationships (+)	3.92 (0.7)	3.88 (0.7)	3.90 (0.7)	3.89 (0.7)	.00
Role (+)	4.15 (0.6)	4.07 (0.7)	4.02 (0.7)	4.03 (0.7)	.00
Change (+)	**2.96 (0.9)**	**2.64 (0.9)**	**3.02 (0.9)**	**2.97 (0.9)**	**.02***
POS (+)	**3.13 (0.9)**	**2.90 (0.9)**	**3.19 (0.9)**	**3.22 (0.8)**	**.02***
PSC (+)	**2.89 (0.8)**	**2.59 (0.9)**	**2.90 (0.8)**	**2.96 (0.8)**	**.04****
Job insecurity (-)	**3.52 (0.9)**	**3.40 (1.0)**	**3.70 (0.9)**	**3.63 (0.9)**	**.00**
CAOC (-)	2.97 (0.8)	3.16 (0.8)	3.07 (0.8)	3.03 (0.8)	.01*

Note: *n* = 552; df = 1/550 for time*exposure; * < .01; ** < .001; **bold rows** denote variables targeted by intervention
(+) higher scores indicate better conditions/outcomes; (-) higher scores indicate poorer conditions/outcomes;
GHQ = General Health Questionnaire; Job Sat. = Job Satisfaction; POS = Perceived Organisational Support;
PSC = Psychosocial Safety Climate; CAOC = Cynicism About Organisational Change

Table 22 summarises the repeated-measures ANOVA assessing effects of exposure versus non-exposure to ChangeComms (exposed, $n = 447$; not exposed, $n = 105$). This found significant interaction effects on three of the target variables: POS (F[1,550] = 9.53, $p <$ .01, partial $\eta^2 = 0.02$), *change* (F[1,550] = 9.24, $p <$ .01, partial $\eta^2 = 0.02$), and PSC (F[1,550] = 19.79, $p <$ .001, partial $\eta^2 = 0.04$). There were no effects on *job insecur*ity (F[1,550] = 0.40, $p >$.01, partial $\eta^2 = 0.00$). Other significant interactions were shown for CAOC (F[1,550] = 7.90, $p <$ .01, partial $\eta^2 = 0.01$) and *job satisfaction* (F[1,550] = 8.08, $p <$ .01, partial $\eta^2 = 0.01$). The interaction effects for target variables are illustrated more clearly in the interaction plots shown in figure 2 (p. 201), but the trend was for employees who experienced ChangeComms to remain stable, with a worsening for those who reported that they had not (interaction plot also shown for *demands*, to allow comparison of effects on the prominent stressor from the baseline assessment that was not targeted by the intervention).

Of those who had reported being exposed to ChangeComms in the repeated measures sample, 28% rated ChangeComms positively, 17% negative, and 55% neither; a 'rating' was provided only by those who reported participating in ChangeComms and included three categories (positive, negative, neither). 105 respondents indicated not participating, leaving a total n = 447 for this analysis. The results of the repeated-measures ANOVA, with rating of ChangeComms as the between-group variable are shown in table 23, and shows that there were no effects of rating for any of the target variables (i.e. *change*, POS, or PSC, or job insecurity) and this was echoed for the other outcome variables. In other words, pre/post mean scores for each variable actually remained fairly stable, regardless of employees' rating of ChangeComms.

Figure 2: Interaction plots of exposure to ChangeComms on target variables & *demands*

ChangeComms & Change (partial η² = .02*)

ChangeComms & POS (partial η² = .02*)

ChangeComms & Job Insecurity (partial η² =.00)

ChangeComms & PSC (partial η² =.04**)

ChangeComms & Demands (partial η² =.00)

Exposed / Not exposed

ChangeComms target variables: *change*, POS, PSC, & job insecurity

Exposure to ChangeComms showed significant effects for *change*, POS, & PSC; with exposure associated with maintenance of T1 levels. There were no significant interaction effects for job insecurity. For comparison purposes, the interaction plot for the main issue identified by the baseline assessment (*demands*) but not targeted by interventions is also shown. There was no interaction effect for this variable.

Table 23: Repeated Measures ANOVA showing interaction effects, based on rating of ChangeComms (n = 447; excludes participants who reported they had not experienced ChangeComms)

Mean (SD) scores by rating of ChangeComms

Variable	Negative (n=77)		Neutral (n=247)		Positive (n=123)		Time x rating effect size (partial η^2)
	Pre	**Post**	**Pre**	**Post**	**Pre**	**Post**	
GHQ (-)	17.06 (7.2)	17.38 (6/9)	13.55 (6.0)	13.97 (6.3)	12.16 (5.7)	11.07 (4.4)	.01
JRWB (+)	2.76 (0.7)	2.74 (0.7)	3.08 (0.7)	3.08 (0.8)	3.38 (0.7)	3.44 (0.7)	.00
Job stress (-)	3.19 (0.9)	3.21 (0.9)	2.90 (0.8)	2.96 (0.9)	2.74 (0.9)	2.84 (0.8)	.00
Job sat. (+)	3.35 (0.9)	3.29 (0.9)	3.51 (0.9)	3.53 (0.9)	3.78 (0.8)	3.86 (0.7)	.00
Demands (+)	2.94 (0.6)	2.96 (0.6)	3.14 (0.7)	3.11 (0.7)	3.20 (0.7)	3.18 (0.7)	.01
Control (+)	3.50 (0.7)	3.31 (0.8)	3.66 (0.6)	3.58 (0.7)	3.83 (0.7)	3.78 (0.6)	.01
Manager (+)	3.33 (0.9)	3.17 (0.9)	3.54 (0.9)	3.46 (0.8)	3.71 (0.9)	3.75 (0.9)	.01
Peer sup. (+)	3.64 (0.6)	3.51 (0.7)	3.82 (0.7)	3.76 (0.7)	3.98 (0.7)	3.96 (0.7)	.00
Rel'ships (+)	3.62 (0.7)	3.62 (0.8)	3.91 (0.7)	3.90 (0.7)	4.05 (0.6)	4.02 (0.7)	.00
Role (+)	3.93 (0.8)	3.81 (0.8)	3.98 (0.7)	4.01 (0.6)	4.14 (0.6)	4.20 (0.6)	.01
Change (+)	**2.67 (0.9)**	**2.58 (0.9)**	**3.00 (0.8)**	**2.93 (0.8)**	**3.27 (0.9)**	**3.29 (0.8)**	**.00**
POS (+)	**2.85 (0.9)**	**2.92 (0.9)**	**3.20 (0.8)**	**3.16 (0.8)**	**3.41 (1.0)**	**3.53 (0.8)**	**.01**
PSC (+)	**2.48 (0.8)**	**2.53 (0.8)**	**2.89 (0.8)**	**2.96 (0.7)**	**3.19 (0.8)**	**3.25 (0.8)**	**.00**
Job Insec (-)	**3.81 (09)**	**3.90 (1.0)**	**3.69 (0.8)**	**3.59 (09)**	**3.65 (0.9)**	**3.53 (0.8)**	**.01**
CAOC (-)	3.47 (0.8)	3.46 (0.8)	3.12 (0.8)	3.08 (0.8)	2.73 (0.8)	2.67 (0.8)	.00

Note: df = 2/444 for time*rating;   * < .01; ** < .001; **bold rows** denote variables targeted by intervention

(+) higher scores indicate better conditions/outcomes; (-) higher scores indicate poorer conditions/outcomes

GHQ = General Health Questionnaire; Job Sat. = Job Satisfaction; POS = Perceived Organisational Support; PSC = Psychosocial Safety Climate; Job Insec = Job Insecurity; CAOC = Cynicism About Organisational Change

Performance & Development Framework (PDF)

The new PDF system aimed to improve aspects such as manager support, recognition and feedback to staff, with the target variables being *manager support*, *role clarity*, and *change*. 77% (*n* = 425) of the 552 in the matched sample reported that they had experienced PDF; of those who were reported experiencing PDF, 21% were positive; 19% negative; 60% 'neither positive nor negative'. Table 24 shows results from repeated-measures ANOVA of exposure versus non-exposure to PDF. Contrary to the same analysis with ChangeComms, there were no interaction effects of exposure (or not) to PDF. In other words, mere exposure to PDF did not affect employees differently to those who reportedly had not experienced it.

Table 24: Repeated Measures ANOVA showing interaction effects of exposure to PDF

Variable	Not exposed (n=127)		Exposed (n=425)		Time x exposure effect size (partial η^2)
	Pre	Post	Pre	Post	
GHQ (-)	14.89 (6.7)	14.58 (6.3)	13.56 (6.1)	13.64 (6.4)	.00
JRWB (+)	2.97 (0.7)	2.95 (0.8)	3.15 (0.7)	3.15 (0.8)	.00
Job stress (-)	2.87 (0.9)	2.98 (1.0)	2.92 (0.9)	3.00 (0.9)	.00
Job sat. (+)	3.39 (0.9)	3.38 (0.9)	3.64 (0.8)	3.62 (0.9)	.00
Demands (+)	3.18 (0.8)	3.16 (0.8)	3.11 (0.7)	3.07 (0.7)	.00
Control (+)	3.45 (0.8)	3.36 (0.7)	3.67 (0.7)	3.61 (0.7)	.00
Manager sup. (+)	**3.32 (0.9)**	**3.26 (0.9)**	**3.63 (0.9)**	**3.56 (0.9)**	**.00**
Peer sup. (+)	3.76 (0.7)	3.73 (0.7)	3.87 (0.7)	3.80 (0.7)	.00
Rel'ships (+)	3.87 (0.7)	3.80 (0.7)	3.91 (0.7)	3.91 (0.7)	.00
Role clarity (+)	**4.01 (0.7)**	**4.01 (0.7)**	**4.05 (0.7)**	**4.04 (0.7)**	**.00**
Change (+)	**2.81 (0.9)**	**2.56 (0.9)**	**3.07 (0.9)**	**3.01 (0.9)**	**.01**
POS (+)	**2.93 (0.9)**	**2.87 (0.8)**	**3.26 (0.9)**	**3.25 (0.8)**	**.00**
PSC (+)	**2.63 (0.8)**	**2.53 (0.9)**	**2.98 (0.8)**	**3.00 (0.8)**	**.00**
Job insecurity (-)	3.70 (0.9)	3.62 (1.0)	3.66 (0.9)	3.57 (0.9)	.00
CAOC (-)	3.28 (0.8)	3.25 (0.8)	2.99 (0.8)	3.00 (0.8)	.00

Note: *n* = 552; df = 1/550 for time*exposure;   * < .01; ** < .001;
bold rows denote variables targeted by intervention
(+) higher scores indicate better conditions/outcomes; (-) higher scores indicate poorer conditions/outcomes
GHQ = General Health Questionnaire; Job Sat. = Job Satisfaction; POS = Perceived Organisational Support; PSC = Psychosocial Safety Climate; CAOC = Cynicism About Organisational Change

Table 25 shows that, for employee ratings of PDF, three of the five variables that were anticipated as target variables showed significant interaction effects (*manager support*, $F[2,422] = 7.99$, $p < .001$, partial $\eta^2 = 0.04$) (*change*, $F[2,422] = 6.51$, $p < .01$, partial $\eta^2 = 0.03$), (*role clarity;* $(F[2,422] = 8.93$, $p < .001$, partial $\eta^2 = 0.04$). The trend here was slight improvements for those who rated PDF positively, and declines for those who rated them negatively. However, rating of PDF showed no significant interaction effect with the other target variables POS ($F[2,422] = 1.95$, $p > .05$, partial $\eta2 = 0.01$) and PSC ($F[2,422] = 3.02$, $p > .01$, partial $\eta2 = 0.01$). Figure 3 (p. 206) illustrates these with interaction plots for the five target variables, and *demands*, which also indicates some clear pre-existing group differences associated with ratings, that are discussed subsequently.

There was also a significant interaction between employees' rating of PDF and JRWB ($F[2,422] = 4.78$, $p < .01$, partial $\eta2 = 0.02$), while a similar partial $\eta2$ of 0.02 was also found for *job satisfaction*, but this was $p > 0.01$ ($F[2,422] = 4.23$, $p < .05$, partial $\eta2 = 0.02$).

Table 25: Repeated Measures ANOVA, showing interaction effects, based on rating of PDF

n = 425; excludes participants who reported not having experienced PDF

	Mean (SD) scores by rating of ChangeComms						
	Negative (n=82)		**Neither positive nor negative (n=255)**		**Positive (n=88)**		**Time x rating effect size (partial η2)**
Variable	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	
GHQ (-)	15.66 (7.0)	16.27 (7.0)	13.40 (5.6)	13.76 (6.2)	12.10 (6.2)	10.85 (5.0)	.01
JRWB (+)	2.89 (0.8)	2.74 (0.8)	3.15 (0.7)	3.14 (0.7)	3.40 (0.8)	3.56 (0.7)	.02*
Job stress (-)	3.12 (0.9)	3.30 (0.9)	2.93 (0.9)	2.96 (0.9)	2.72 (0.8)	2.80 (0.8)	.00
Job sat. (+)	3.37 (0.8)	3.16 (1.0)	3.62 (0.8)	3.61 (.08)	3.96 (0.7)	4.08 (0.7)	.02
Demands (+)	3.02 (0.7)	2.93 (0.6)	3.13 (0.7)	3.11 (0.7)	3.16 (0.7)	3.11 (0.7)	.00
Control (+)	3.56 (0.7)	3.54 (0.6)	3.67 (0.6)	3.58 (0.7)	3.79 (0.7)	3.77 (0.7)	.00
Manager (+)	**3.38 (0.8)**	**3.03 (0.8)**	**3.61 (0.9)**	**3.59 (0.9)**	**3.90 (0.9)**	**3.98 (0.7)**	**.04****
Peer (+)	3.64 (0.6)	3.40(0.7)	3.87 (0.6)	3.84 (0.7)	4.09 (0.7)	4.08 (0.6)	.02
Rel'ships (+)	3.77 (0.8)	3.67 (0.8)	3.91 (0.7)	3.92 (0.7)	4.03 (0.7)	4.11 (0.7)	.01
Role (+)	**3.90 (0.8)**	**3.70 (0.7)**	**4.06 (0.6)**	**4.05 (0.6)**	**4.18 (0.7)**	**4.34 (0.5)**	**.04****
Change (+)	**2.70 (0.9)**	**2.43 (0.9)**	**3.09 (0.8)**	**3.02 (0.8)**	**3.34 (0.9)**	**3.52 (0.7)**	**.03***
POS (+)	**2.86 (0.9)**	**2.74 (0.8)**	**3.24 (0.8)**	**3.22 (0.7)**	**3.67 (0.9)**	**3.79 (0.7)**	**.01**
PSC (+)	**2.54 (0.9)**	**2.56 (0.7)**	**3.03 (0.7)**	**2.99 (0.7)**	**3.24 (0.8)**	**3.43 (0.7)**	**.01**
Job Insec (-)	3.71 (1.0)	3.62 (1.1)	3.70 (0.8)	3.68 (0.8)	3.48 (1.0)	3.23 (0.9)	.01
CAOC (-)	3.32 (0.8)	3.45 (0.8)	3.01 (0.7)	3.05 (0.7)	2.62 (0.8)	2.44 (0.7)	.02

Note: df = 2/422 for time*rating; * < .01; ** < .001; **bold rows** denote variables targeted by intervention

(+) higher scores indicate better conditions/outcomes; (-) higher scores indicate poorer conditions/outcomes

GHQ = General Health Questionnaire; Job Sat. = Job Satisfaction; POS = Perceived Organisational Support; PSC = Psychosocial Safety Climate; Job Insec = Job Insecurity; CAOC = Cynicism About Organisational Change

Figure 3: Interaction plots of PDF rating on target variables & *demands*
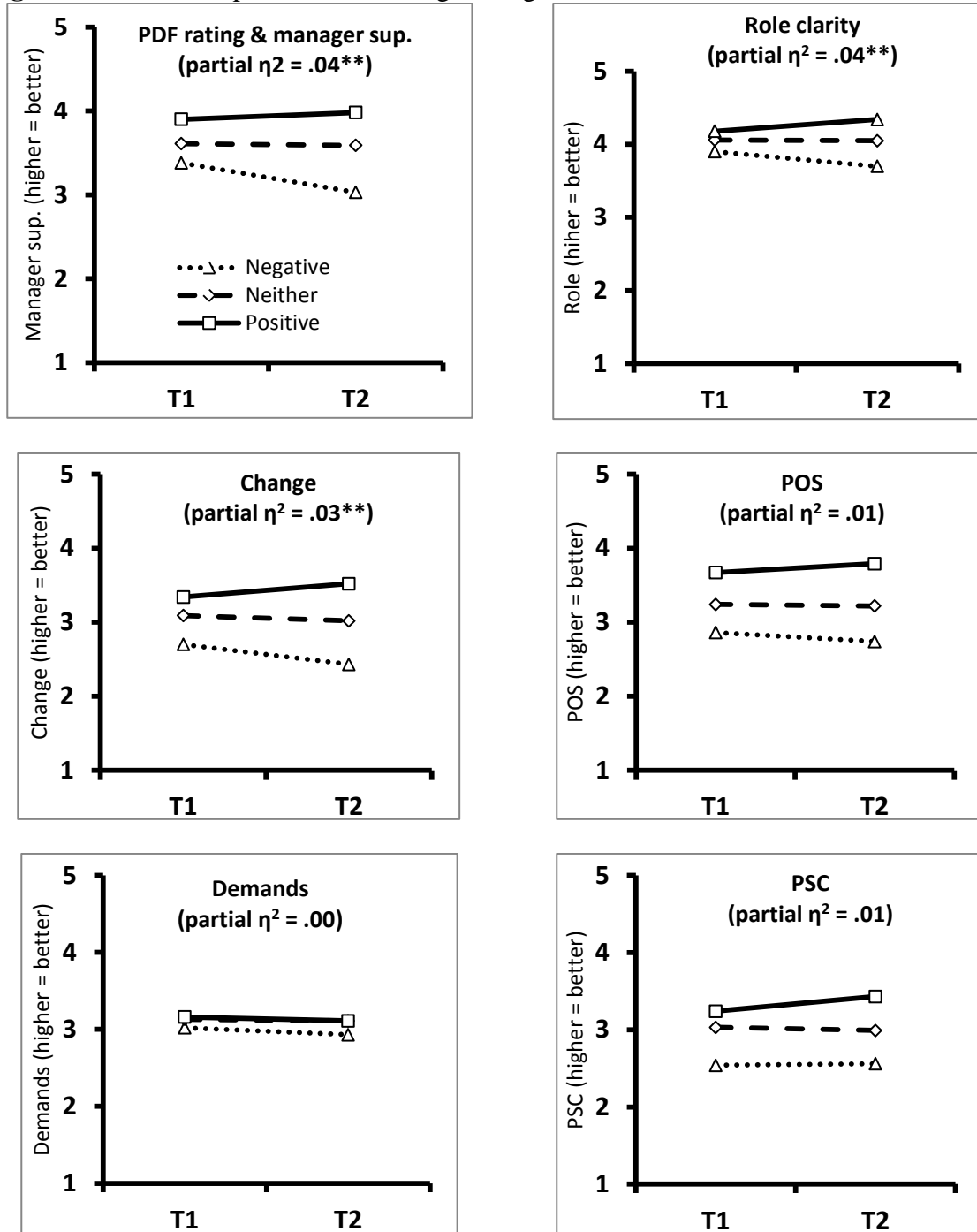
PDF target variables: *Manager support*, **POS, PSC,** *role clarity, change*
Rating of PDF showed significant effects for *manager support*, *change*, & *role*, with positive ratings associated with slight improvements, and negative ratings slight worsening of T1 levels. There were no significant interaction effects of rating for POS. For comparison purposes, the interaction plot for the main issue identified by the baseline assessment (*demands*) but <u>not</u> targeted by interventions is also shown. There was no interaction effect for this variable.

Mental health awareness sessions for managers

Data limitations for this intervention component meant a similar repeated-measures ANOVA, as per ChangeComms and PDF, was not possible. The aim of the sessions was to increase managers' awareness of mental health issues and better equip them to support their staff. However, it was intended that the main benefit would be for those who were *managed by* attendees, by improving the support they receive. Therefore, because survey responses of managers and their subordinates could not be linked together it was not possible to evaluate whether attendance had any effect on those they managed[11], and only overall pre- and post-intervention scores could be compared.

The analysis shown earlier indicated there was no significant change in perceptions of *manager support* (table 19, p.192). Four questions added to assess the efficacy of these sessions were described in chapter four (methodology), and three of these were aimed at assessing employees' confidence and willingness to disclose or discuss stress or mental health issues with their line manager. These were specifically added to the questionnaire to assess the potential effects of the sessions although, again, it was not possible to analyse them on the basis of their managers' attendance. Repeated-measures *t*-tests were therefore conducted to compare T1 and T2 scores on these questions for the overall repeated-measures sample of 552 respondents to assess whether there were any changes, on the basis that improved awareness of stress and mental health awareness from managers was also intended to improve support-seeking among employees.

Table 26 shows, however, that the trend was for decreasing confidence or willingness to disclose stress or mental health problems to a line manager; although the only significant

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[11] In fact, although the sessions were originally designed for managers, they were eventually opened up to all staff who wanted to attend. As a side-note, 57 of the sample had attended a session (37 managers, 20 non-managers) and based on comparison of attendees and non-attendees (n = 495) there were no significant interaction effects of attendance for any of the outcome variables.

change was for '*my manager would be supportive if I disclosed stress or mental health problems*'.

Table 26: *t*-tests and effect sizes from comparison of T1 and T2 scores on confidence and willingness to disclose stress or mental health issues with line manager

Question	Mean (SD) Pre	Post	Change: Post-pre	*t*-statistic	Effect (Cohen's *d*)	Direction of change
If you felt that your health might be suffering as a result of stress or strain in your life, how likely is it that you would raise the issue with your line manager?	3.57 (1.42)	3.49 (1.40)	-.08	1.24	0.06	-
I would feel confident disclosing stress or mental health problems to my manager.	3.29 (1.37)	3.24 (1.28)	-.05	0.81	0.04	-
My manager would be supportive if I disclosed stress or mental health problems	3.72 (1.08)	3.61 (1.10)	-.11	2.25†	0.10	Worsened

Note: † $p < .05$;   higher scores indicate more confidence/willingness

A further single item was included to assess the potential effect of the sessions on attendees of the awareness sessions themselves: '*If you thought someone you worked with was experiencing stress or mental health problems, how confident would you feel in discussing it with them?*'. This was assessed on a five-point scale with responses from '*not at all confident*' to '*very confident*', with higher scores indicating greater confidence. There was a trend towards improvement in confidence from T1 to T2 for attendees ($n = 57$; T1 mean = 3.81; T2 mean = 3.96), compared to non-attenders ($n = 494$; T1 mean = 3.29; T2 mean = 3.27). However, a repeated-measures ANOVA with attendance as the between-group factor (attended versus did not attend), showed no significant interaction effect (F[1,549] = 1.52, $p = 0.22$, partial $\eta^2 = 0.00$). Tellingly, there were also between-group differences in 'confidence' at T1 with attendees (T1 mean = 3.81) significantly more confident than non-attendees (T1 mean = 3.29) even prior to attending the session ($t(549)$=-3.13, $p<.01$).

The survey

The survey was a component of the process, rather than a targeted intervention, but it was anticipated that successfully identifying the main issues and effectively feeding these back to staff would be associated with improvements to POS, PSC, *change*, and CAOC. Unfortunately, just 34% of the full follow-up survey sample reported seeing the survey results and feedback shared by PublicOrg; for the matched sample analysed here, this was 40% ($n = 222$). Repeated measures ANOVA with '*did you see the summary of results from the last staff well-being survey?*' as the between groups variable (two groups: 'yes', or 'no'), showed no interaction with any outcome variables (the highest was *control* (F[1,550] = 3.11, $p = .08$, partial $\eta^2 = 0.01$), with all other variables partial $\eta^2 = 0.00$). It was anticipated that seeing results being fed back to employees would indicate PublicOrg were following up on the survey and that *something* was being done, but this was not supported by the results.

However, *seeing* the results is not the same as agreeing with them. Of the 222 respondents who had seen the results/feedback, 60% ($n = 134$) agreed that it showed the main issues, with 6% disagreeing (n = 14). The remainder ($n = 74$) 'neither agree nor disagree'. Repeated measures ANOVA (three groups: 'agree', 'disagree', 'neither agree nor disagree') also showed no significant effects regarding the perceived accuracy of the survey findings, for any of the 'target' variables (POS, PSC, *change*, CAOC). Therefore, seeing the survey results/feedback had no effect on these variables, even when the results were perceived as accurate.

Cynicism, and pre-existing differences linked to intervention exposure and rating

Although it was effects of intervention exposure and perceived quality that were of primary interest in these analyses, it was notable that mean scores at T1 (e.g. table 23 & table 25) indicated pre-intervention differences for many variables, linked to exposure to or ratings of ChangeComms and PDF. These T1 differences can be seen in the previous ANOVA tables and more clearly illustrated by the interaction plots (figure 2 & figure 3). In other words, employees who rated interventions negatively tended to be those who had poorer pre-existing well-being or perceptions of the workplace (and vice-versa). For example, those who rated ChangeComms positively (measured at T2) had a higher (better) score on *manager support* at T1 (mean = 3.90; SD = 0.9), compared to those who rated it negatively (mean = 3.38; SD = 0.8). The statistical significance of these is confirmed by significant correlations between T1 variables and T2 intervention exposure and ratings (see tables on page 212 & 213).

There are likely to be many factors involved in this, and it is not an unusual finding in studies where self-selection to 'treatment' groups is present in the study design (e.g. Björklund, Grahn, Jensen, & Bergström, 2007; Nabe-Nielsen et al., 2015). However, as discussed in the literature review, one plausible contextual factor was baseline levels of 'cynicism' (CAOC) (Wanous et al., 2000). That is, employees with higher pre-existing levels of CAOC would be less likely to participate (i.e. become exposed to interventions) or positively rate interventions, because they have less belief that it will yield any benefit. Such beliefs were likely to be based in part on previous experiences of change (Choi, 2011).

It was anticipated that CAOC could have a causal influence on employees' participation and rating of interventions, but it was inappropriate to attempt to control for its influence in the previous repeated-measures analyses, from both a statistical (Cohen, Cohen, West, & Aiken, 2002; Miller & Chapman, 2001) and process evaluation perspective (Pawson & Tilley, 1997). Therefore, some indication of its role may be assessed by looking at partial correlations between outcome variables at T1 and subsequent exposure/rating of PDF and ChangeComms, while removing variance explained by T1 CAOC (Baguley, 2012). Because of the small number of attendees at mental health awareness sessions these analyses concentrate on the organisation-wide interventions of PDF and ChangeComms.

Table 27 shows a T1 CAOC correlation of $r = .30$ with employees' rating of ChangeComms; in other words, 9% of the variance in employees' ratings was accounted for by pre-existing level of CAOC. Before partialling out the variance attributable to T1 CAOC, 11 of the other 14 baseline variables were also significantly correlated with subsequent ratings of ChangeComms. PSC and JRWB had the strongest correlations at $r = .28$ (i.e. PSC & JRWB explained 7.8% of the variance in ChangeComms rating). After controlling for CAOC, 8 of those 11 significant zero-order correlations became non-significant; PSC correlation was then the strongest at $r = .15$ (now accounting for 2.3% of the variance in ChangeComms rating). For participation in ChangeComms, CAOC was not significantly correlated, at only $r = .05$; of the other 14 baseline variables, only *control* correlated significantly ($r = .16$), and remained so after controlling for T1 CAOC.

Table 27: Zero-order and partial correlation of study variables with exposure to and rating of ChangeComms, controlling for T1 CAOC

T1 variable	Participated in ChangeComms		Rating of ChangeComms	
	Zero order correlation	Partial correlation: Controlling for T1 CAOC	Zero order correlation	Partial correlation: Controlling for T1 CAOC
GHQ	-.03	-.06	-.24**	-.13*
JRWB	.00	.03	.28**	.14*
Perceived job stress	-.01	-.02	-.16*	-.10
Job Satisfaction	-.06	-.04	.17**	.04
Demands	-.03	-.01	.12	.04
Control	.16**	.17**	.16**	.11
Manager support	-.02	.01	.14*	.01
Peer support	-.04	-.03	.16*	.07
Role	-.08	-.06	.10	-.00
Relationships	-.01	.00	.20**	.10
Change	**.03**	**.06**	**.23****	**.08**
PSC	**.00**	**.04**	**.28****	**.15***
POS	**.02**	**.07**	**.20****	**.04**
Job Insecurity	**.08**	**.07**	**-.06**	**.01**
CAOC	.05	-	-.30**	-

Note: * < .01; ** < .001

bold rows denote variables targeted by intervention

Table 28 shows that for PDF, baseline levels of CAOC correlated significantly with both participation ($r = .15$) and rating ($r = .28$) of PDF; unlike ChangeComms, there were several (6 of 14) significant zero-order correlations between baseline variables and participation in PDF, with PSC highest at $r = .18$ (3.2% of variance in participation). After controlling for T1 CAOC only PSC remained significantly associated ($r = .12$; i.e. 1.4% of variance). 10 baseline variables showed a significant zero-order correlation with rating of PDF (POS; $r = .30$; 9% of the variance), and 3 remained significant after controlling for CAOC (POS; $r = .18$; 3.2% of variance).

Therefore for both interventions, a substantial proportion of those pre-existing differences that were linked to subsequent ratings could be explained by baseline levels of CAOC.

Table 28: Zero-order and partial correlation of study variables with exposure to and rating of PDF, controlling for T1 CAOC

T1 variable	Participated in PDF		Rating of PDF	
	Zero order correlation	Partial correlation: Controlling for T1 CAOC	Zero order correlation	Partial correlation: Controlling for T1 CAOC
GHQ	-.09	-.03	-.18**	-.08
JRWB	.10	.02	.22**	.09
Perceived job stress	.02	.06	-.14*	-.08
Job Satisfaction	.12*	.06	.22**	.11
Demands	-.04	-.08	.07	.00
Control	.13*	.10	.11	.06
Manager support	**.15***	**.09**	**.19***	**.08**
Peer support	.07	.02	.21**	.13*
Role	**.03**	**-.03**	**.13***	**.04**
Relationships	.02	-.03	.12	.02
Change	**.13***	**.05**	**.24***	**.11**
PSC	**.18***	**.12***	**.28***	**.16***
POS	**.16***	**.09**	**.30***	**.18***
Job Insecurity	-.02	.01	-.08	-.03
CAOC	-.15*	-	-.28**	-

Note: * < .01; ** < .001
bold rows denote variables targeted by intervention

Discussion of effect evaluation

The following chapter summarises the process evaluation as a whole, and considers the general mechanisms associated with some of the statistical effects that were associated with the interventions discussed in the 'effect evaluation' chapter. This section will focus more specifically on the findings in relation to the individual interventions, with the discussion chapter covering this in more general terms. To aid understanding of organisational level interventions, process evaluation frameworks (e.g. Nielsen & Randall, 2013) have asked researchers to consider where and how interventions have their effects; for example, do psychosocial conditions targeted by interventions improve for those exposed to them (Nielsen & Abildgaard, 2013), and for those who perceive them more positively (Hasson et al., 2014). This section discusses the evidence in relation to those questions.

ChangeComms

At baseline, job security was among the most frequently commented sources of 'stress', and this was part of the rationale for PublicOrg's ChangeComms events, intended to keep staff updated on changes and new proposals. Related to this, it was also instructive to note that employees' perception of *change*, POS, and PSC, were relatively stable regardless of whether they rated ChangeComms positively or negatively. However, for those who reported not participating in it there was a comparative worsening on these variables.

It could be expected that it would be the perceived effectiveness in the eyes of employees that would be the stronger predictor of any potential changes, rather than mere exposure to it. Yet the reverse was found and there were benefits of exposure to ChangeComms regardless of the rating of the content, for *change*, POS, and PSC; with the trend being that employees who experienced it showed no change between T1 and T2, whereas those reporting they had not experienced ChangeComms worsened on these variables. Therefore, the mere act of senior leaders personally addressing employees and sharing change-related updates as well as offering opportunities for employees to question them, as recommended by research (e.g. Giga, Cooper, et al., 2003), may have promoted interactional justice (Bies, 2001). This includes concepts related to the aforementioned variables (e.g. being listened to, and having the opportunity to question managers about change) and refers to the perceived fairness of interpersonal treatment received from authority figures (Greenberg, 2006).

Although it was the comparative worsening for employees who reported non-exposure to ChangeComms that was responsible for the significant effect, this is encouraging for organisations who find themselves forced to make difficult and unpopular decisions. It suggests that even under challenging conditions, the negative effects of these changes can

at least be mitigated if care is taken with communication (e.g. Greenberg, 1990, 2006). It was also encouraging, then, that *job insecurity* dropped significantly between T1 and T2 despite the turmoil faced by PublicOrg. On the face of it, this could represent a success for ChangeComms. However, this decrease could not be linked to the ChangeComms initiative: neither exposure to, nor ratings of, ChangeComms were associated with changes in levels of perceived *job insecurity*. Furthermore, there is no indication from quantitative or qualitative data why this drop occurred. The possibility that patterns of level of *job insecurity* were linked to participation in one or both time-points was examined by a further χ^2 test; for example perhaps some of the most 'insecure' at T1 felt that way due to concrete knowledge their job was under threat, and were no longer with PublicOrg at T2. However, this analysis showed that participation in both surveys was unrelated to level of *job insecurity*.

Alternatively, a period of 'shock' following potentially threatening job-related announcements can be linked with an initial spike in 'fear' (Jacobson, 1987), so it is possible that employees were becoming habituated to the uncertain conditions and so this drop was a reflection of the reduced impact subsequent announcements were having. However, previous research suggests this too was unlikely and that ongoing uncertainty only exacerbates negative perceptions (e.g. Burchell, 2011). Two further possibilities exist; this reduction in *job insecurity* could simply be spurious, or another unmeasured variable may be responsible; neither of which can be ruled out. In the latter case, for example, PublicOrg had a 'redeployment' scheme in place whereby employees in whose posts were under threat had preferential access to internal vacancies and opportunities to retrain. This was not a new scheme, but previous research highlights the ubiquity of 'competing' or overlapping initiatives (e.g. Nielsen et al., 2006; Randall, Cox, & Griffiths,

2007), so this is noted to illustrate there were other things occurring within the organisation whose influence are either not known or cannot be accounted for.

A further point acknowledges some ambiguity about employees exposure to ChangeComms; the sessions were held during work hours with time allowed to attend, but were not mandatory. Therefore, it leaves open the possibility that either those who reported not experiencing ChangeComms did not wish to attend, did not know about it, or were unable – perhaps due to a feature of their job or manager's discretion. Regardless of the reasons, the data suggests that attendance buffered against worsening perceptions of POS, PSC, and *change*, but the mechanisms responsible for the decisions to attend are inconclusive.

Performance & Development Framework (PDF)

There were no significant effects of exposure to PDF for any of the outcome variables, suggesting that mere exposure alone was insufficient to make a difference to target variables. There were, however, effects associated with employee *ratings* of PDF, the trend being for slight improvements to variables for positive raters, in comparison with worsening for negative raters on *manager support*, *role clarity*, *change*, as well as JRWB. The first three were anticipated, but significant effect on JRWB was less so. It is not surprising, in the sense that targeting the elements that PDF was intended to address should improve the psychosocial environment and thus JRWB, but it was expected that the timescale for the project could be too narrow to show changes to distal well-being-related variables. Therefore, it was encouraging that this effect was present, and although it was a small effect (partial $\eta^2 = 0.02$), it may be indicative of potential longer-term changes.

The changes to psychosocial conditions were broadly in line with Schaubroeck et al. (1993), whose supervisory-focused intervention to improve role clarity found effects on role ambiguity, and supervisory relationships; however these were based on intervention versus control group membership (i.e. presumed exposure), rather than perceptions of the intervention. Schaubroeck and colleagues' intervention was also more in-depth, involving training and a series of workshops, compared to PublicOrg's, which was essentially based on dissemination of new guidance and proforma's to guide supervision and appraisal meetings.

Regarding PDF's effect on the psychosocial environment itself, it was anticipated that if PDF was effective then POS would have benefited, chiefly because POS incorporates employees' sense of being valued and recognised (e.g. POS item: '*my employer values my contribution*'). Nonetheless, no interaction effect on POS and rating of PDF was found. While this was contrary to expectations, previous research suggests managers are often viewed as agents of the organisation (Rhoades & Eisenberger, 2002), and Wollard and Shuck (2011) propose that organisational-level factors such as culture may be seen by employees as within leadership's sphere of influence. Consequently, Campbell, Perry, Maertz, Allen, and Griffeth (2013) propose that variables such as POS are salient when *senior* management are seen as treating employees well. Conversely, positive interactions and support from line managers are likely to be attributed to the individual's *line* manager. This was the pattern here, in that POS was not associated with changes based on exposure to or rating of PDF but *manager support* was.

Managers are an important feature of the work environment for many employees because their influence can affect other aspects of the psychosocial environment (Gilbreath & Benson, 2004; NICE, 2015). Therefore, what is potentially concerning here is that the

significant interaction effects for *manager support*, in particular, was driven in part by the slightly larger worsening for negative raters of PDF (T1 mean = 3.38, T2 mean = 3.03) than by improvements for positive raters (T1 mean = 3.90, T2 mean = 3.98). This tendency for worsening for employees who rated PDF negatively was also common to the other significant effects. Leader-Member Exchange theory (Dansereau, Graen, & Haga, 1975; Graen, 1976) proposes the reciprocal relationship that develops between leaders (i.e. line manager/supervisor) and subordinates. On that basis it could be that subordinates who had poor existing relationships with their managers were adversely affected by PDF; because PDF attempted to ensure employees are given more regular feedback, via one-to-one supervision meetings, it may therefore expose them to more interaction with their manager. However, what is less obvious, is that a similar pattern occurred for *role clarity,* with negative raters showing a decline (worsening; T1 mean = 3.90, T2 mean = 3.70). It is difficult to be sure why *role clarity* might decline from an intervention that was partially charged with improving it; however, linked to the explanation for the worsening in *manager support*, if PDF made an already poor relationship with a manager worse then it may also have negatively influenced interactions related to clarifying expectations (i.e. *role clarity*). The strong correlation between *role clarity* and *manager support* suggests there is some merit in this possibility ($r = .50$; p < .001, shown in the T1 cross-sectional correlation matrix, table 10 on p.137).

Exposure to and perceptions of PDF and ChangeComms was associated with changes in relevant outcome variables but the question of which elements of the interventions were responsible (Nielsen & Randall, 2013) is less clear – particularly in the case of PDF. The core element of ChangeComms was a series of discrete events, whereas PDF was based on manager supervision and interaction with employees using the new PDF framework and as

such is less tangible. Therefore, the evidence indicates that, yes, employees' perceptions of the new PDF supervision/appraisal approach was associated with significant effects but was limited in being able to show exactly how. Research provides support for the effect that quality of interaction with managers may have on psychosocial outcomes (Gilbreath & Benson, 2004), but it is not apparent which element(s) of PDF made them rate it negatively or positively, based on the data collected here. For example, did the framework itself facilitate better supervision interactions than before, or – as a new scheme – had it simply improved the frequency of supervision; or both?   This is where more in-depth qualitative methods to follow-up the T2 survey would have been of particular value, by allowing further exploration of this and other questions prompted by the survey findings.

Mental health awareness sessions for managers

There were no overall improvement in the repeated measures *t*-tests of the items included in the survey to assess employees' willingness and confidence in discussing stress or mental health issues with their line manager, between T1 and T2; the only significant change was a worsening for the belief that their line manager would be supportive if they disclosed stress or mental health issues. Previous research from Takao et al. (2006) found no effects of a similar intervention across the workforce, although this was on the distal outcome of employees' psychological distress. In fact the trend in the present study was a decline, with a significant worsening in perceptions that their manager would be supportive if an employee disclosed a stress or mental health issue. However, because of the limited statistical analysis that was possible for this intervention, it is difficult to be clear on why this decline might have occurred; it could be that with the threat of redundancies, employees with mental health problems may feel disclosing this information

may count against them when such decisions are being made (e.g. Seymour, Fleischmann, Ross, Grove, & Sweeney, 2011).

However, although it was not possible to determine the effects of managers' attendance at the mental health awareness sessions on their subordinates, it was possible to at least assess the effects of the sessions on those who attended them; particularly their perceived confidence in discussing others' mental health issues with them. Previous research by Tsutsumi et al. (2005) found significant effects of a similar brief supervisory mental health education session on supervisor's mental health 'knowledge', and although there was a trend towards improved 'confidence' for attendees in the present study, the repeated measures ANOVA found this effect was non-significant. However, this was based on a small number ($n = 57$ in the matched sample) and the most notable aspect, considering the voluntary nature of the sessions, is that attendees were significantly more confident than non-attendees prior to attending; i.e. it did not seem to attract those who appeared to be most in need of it.

The survey

It was anticipated that good communication of the survey and particularly sharing the findings with staff would indicate to staff that their views were being listened to and taken seriously. Therefore, POS could have been expected to improve for employees who saw the survey findings and agreed that they accurately reflected the key issues. This is because POS includes items about being listened to and the organisation caring about their well-being (e.g. '*my employer would ignore any complaint from me*' & '*my employer really cares about my well-being*'), yet there were no significant effects. Similarly, PSC relates to employee perceptions of how seriously employee well-being is taken by the organisation and how effectively it is addressed; therefore it too would have been a likely

indicator of the survey findings being shared. That is, the survey findings would act as visible signs that PublicOrg were taking note of employee concerns, but there were neither any effects of seeing nor agreeing with the survey findings for PSC.

Although it is possible that the sharing of survey findings was simply insufficient to affect these variables, there are indications that this was where the implementation of survey feedback was important. The majority of those who saw the survey findings agreed they highlighted the key issues experienced by colleagues. However, the seven month delay and lack of communication of the findings served to frustrate employees – as evidenced in qualitative feedback at follow-up – and missed an opportunity to reach a large number of the workforce who had already shown interest by completing the survey. Therefore, because PSC concerns not only consultation, but having concerns and views acted on (or at least recognised), the apparent lack of action or response to the baseline survey simply did not do enough to serve as consultation or evidence that employees' concerns were taken seriously.

It is likely that these are the types of mechanism by which 'cynicism' about future changes (i.e. CAOC) develop (e.g. Wanous et al., 2000). CAOC and pre-existing levels of employee well-being and perceptions of the psychosocial environment are explored further in the discussion chapter, as they have more general implications for organisational interventions. There was some indication from the qualitative data whereby a larger number of respondents at T2 indicated they felt that PublicOrg did genuinely care about their well-being and were trying to do what they could. However, some of these comments were tempered with caveats that more needed to be done.

Summary of effect evaluation

This chapter aimed to assess the effects of intervention activity. It also noted the potential relationship with pre-existing well-being and perceptions of the work environment, particularly 'cynicism'. In summary, the quantitative data suggests that overall there was a trend towards poorer perceived working conditions between the two surveys, which were statistically significant for four of the fifteen variables. However, the pre/post intervention analysis is overly simplistic given the research design and complexities of organisational-level interventions. Repeated-measures ANOVA's showed significant interactions between intervention participation and ratings for some of the targeted variables – interactions that were not present for variables not targeted by interventions (e.g. *demands*), providing greater confidence that these psychosocial conditions improved due to intervention activity (Nielsen & Abildgaard, 2013; Sørensen & Holman, 2014). Nonetheless, there were significant pre-existing differences at T1 on many variables that were associated with subsequent participation and perceptions of interventions. Partial correlations between T1 variables and subsequent participation and rating, after removing variance attributable to CAOC, suggested that in many cases much of this pre-existing difference was related to CAOC. This is of particular relevance when targeting interventions and promoting them. The following chapter, the discussion, considers such issues further, beginning with the overall process evaluation, summarising and discussing the phases of the project and the key factors involved in its efficacy.

CHAPTER EIGHT: DISCUSSION

Introduction

This research took place at a particularly turbulent time for the UK public sector, which had affected PublicOrg staff at all levels. Its main aim was to assess whether an organisational-level intervention project, based on a recommended stepwise process could address problematic psychosocial conditions for employees, with a view to improving well-being in the longer-term. A key function of the study was to go beyond outcome-only evaluation to consider the crucial role of process and context in intervention efficacy. Fitting this within Nielsen and Abildgaaard's (2013) recently developed process evaluation framework, and focusing on how each phase contributed to the following phase provided a structure to build the process evaluation around. It also supported the identification of where the process may have been particularly effective or hindered.

When looked at in isolation, the apparent lack of overall pre- and post-intervention improvement may appear as another disappointing outcome for organisational-level interventions aimed at improving the psychosocial environment. Yet, as discussed in the literature review and illustrated throughout the thesis, such efforts do not occur in a vacuum and do not operate uniformly – implementation and employee perceptions are likely to vary, as they did in this case. The context loomed particularly large here, with enforced, unpopular, and ongoing changes taking place before and during this project. The pressures this placed on the organisation also affected the time and resources available to implement the selected initiatives. However, in conjunction with previous process evaluation-based research, this study suggests that organisational level interventions *can* make a difference where employees are actually exposed to interventions, and where they

are well-received. It also adds further evidence for the impact of factors emerging from the literature in recent years and provides lessons to help organisations and practitioners to improve on those weaknesses that may compromise their efforts.

The previous chapter has discussed the interaction effects associated with interventions and discussed some of the mechanisms by which these may have occurred. Nielsen and Abildgaard (2013) suggest that each phase of the project can be seen as an outcome of the one before, and the earlier chapters have provided evaluation of how effectively their outcomes were achieved. This first part of the discussion begins by considering the phases and their outcomes, before evaluating the process as a whole and discussing the role of the barriers and facilitating factors introduced in the literature review throughout this intervention project. Methodological scope and limitations of the research are then discussed in addition to directions for future research, and the thesis closes with lessons and conclusions.

Phase 1) Initiation

The main goal of this phase was to obtain a good response rate to ensure the 'screening' phase was based on the widest range of employee views possible. There was no set target to achieve, but the 50% recommended by the HSE in the MSI user manual for organisations of this size was an informal guide, which this fell short of. The planning and promotion of the baseline assessment was a key function of the initiation phase. The researcher was largely responsible for the planning of the survey itself, and obtained feedback from steering group members, union representatives, and a group of employees, on the content of the survey. As previously stated, PublicOrg's promotion of the survey did not occur as anticipated by the researcher; managers were not systematically involved in its promotion, pre-survey awareness-raising activity did not go ahead as intended, and

much of the communication was ad hoc and consisted of reminder emails. This, in addition to factors such as competing demands, meant the survey response rate was less than desirable. Semmer (2006) suggests that actions should be based on the issues experienced by a large proportion of the workforce, but although this requirement was not met here, the response rate (31%) was similar to average rates found in other research in this domain (Anseel et al., 2010). In fact, this was also a similar response-rate to an internal survey the previous year within PublicOrg about employee transport and travel arrangements).

The second aim of this phase was to ensure the 'screening' phase provided an effective platform for employees to have their say and inform the project. The limits of surveys to facilitate this are discussed elsewhere but the focus group sessions that PublicOrg planned to hold after the survey would have been an important supplement to it, if they had gone ahead.

The main barriers to the efficacy of this phase appeared to be communication of the project to employees, including the absence of manager involvement. The importance of these elements had been clearly communicated to – and acknowledged by – the steering group at the beginning of the process. Based on steering group and individual meetings, as well as the researcher's observations, it appeared that lack of coordination was a factor in this, and the long delays, where agreed actions were not followed-up. The possibility that disappointing experience of previous surveys or well-being initiatives might have contributed to the low response-rate was also implied by some employee comments. However, it was also noted that project progress could be slow in PublicOrg (based on researcher's informal communication with steering group members), and that PublicOrg's swift agreement to participate in the research project and assembly of the steering group

actually represented strong indications of high-level support. This was also reflected in the motivation for the project by senior management who expressed concern about the effect of employees' well-being in light of ongoing budget and staff cuts.

Phase 2) Screening

The baseline survey was intended to facilitate the tailoring of interventions to the needs of the organisation and employees. In line with Cox et al's (2000) risk management cycle, the importance of a thorough initial diagnostic assessment has been emphasised, as has the need to develop interventions based on the results and the particular requirements of that workplace (Briner, 1997; Cooper & Cartwright, 1997; Nielsen & Randall, 2013). The main aim of this phase – the baseline assessment – was to identify the main organisational psychosocial risks affecting employees, so the key question is whether the survey was effective in identifying relevant risks.

The 'screening phase' chapter (chapter five) indicated the challenges associated with translating survey data into actionable information and this could be considered a barrier here (issues specific to the HSE's MSI survey are covered later on in the discussion so will not be expanded on here). Nonetheless, based on feedback from employees (via the follow-up survey) and union representatives, as well as the steering group, it was concluded that the baseline assessment provided a plausible representation of the main issues facing the workforce in general. Across the organisation, there were some stressors that were particularly pressing for employees; e.g. workloads and change/communication-related issues chief among them. Only a small minority felt PublicOrg's summary of findings did not show the main issues, and the majority felt the main issues were indeed covered.

The response-rate obtained from the previous phase is a limitation, but does not necessarily mean the issues it raised were not accurate; however, it does mean that employee participation in this element was restricted, whether through choice, lack of time, or awareness. Given that one of the supplementary aims of this phase was to provide an opportunity for employees to share their views, this was particularly disappointing. It was recognised from the outset that the survey did not represent a high level of active involvement (compared to focus groups, for example), but the fact that a large proportion of those who did participate took the time to provide comments in response to open-text questions (73.1%) suggested it did serve that purpose in some form.

The baseline assessment was based on a survey of employees, using a comprehensive battery of measures, based on previous literature, and with input from unions and employees. But whether it had the necessary depth could be questioned, based on recommendations from the HSE. It was perhaps as thorough as was feasible, but the lack of planned focus groups meant findings lacked an important layer of corroboration (Mellor et al., 2013) and missed the opportunity to give employees more substantial participation, of the kind utilised in other studies (e.g. Dollard & Gordon, 2014; Mikkélsen & Saksvik, 1998). Focus groups, or similar, are a recommended component of the HSE's 'management standards', research suggests they are frequently omitted – seen as time-consuming and resource intensive, or employers may lack the expertise to initiate and sustain such groups (Aust et al., 2010; Mellor et al., 2011). This aspect was an impediment to both clarifying the conclusions drawn by the baseline assessment and to fuller employee participation in the process. However, the barrier that led to focus group sessions not going ahead was contextual; i.e. resources. With over 4,500 employees at T1 it would have represented a significant undertaking for PublicOrg. However, at least some

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participants clearly appreciated the opportunity to have their say via the survey, based on their comments.

It is also relevant to note the departments represented here in this study were responsible for diverse functions (e.g. social care, customer services) and there may be issues that were unique to each, beyond those found when aggregating across the whole sample. Risk assessments are therefore recommended to consider analysis at the team/departmental level in order to facilitate more tailored localised solutions (Maneotis & Krauss, 2015). This is a potential limitation of the process and there is a strong argument that tailoring at the departmental level would have been preferable so solutions could be more aligned to the specific requirements of each. Nielsen, Abildgaard, and Daniels (2014) demonstrate the use of a tailored – rather than generic – survey, to assess the psychosocial environment. This, they report, improves buy-in to the survey and subsequent interventions based on the findings, as employees can see its relevance to their situation and that any interventions are more clearly based on issues they themselves have raised. Nonetheless, this is a resource-intensive process and tailoring at the organisational-level was for practical rather than theoretical reasons here: PublicOrg were clear in their desire to do something that could be rolled-out to all staff rather in specific areas. Moreover, this can still have value, because even across disparate high-stress occupations, organisational-level stressors (e.g. management style, communication) can be more influential than role-specific factors (Clarke & Cooper, 2000). This does not undermine the need for adequate tailoring, but does suggest there was merit in addressing organisational-level stressors.

Phase 3) Planning

The main aim of this phase was for the steering group to translate baseline survey findings into an action plan, and the key question was how closely the baseline assessment findings

and action plans were aligned (Nielsen & Randall, 2013). The conclusion was that although the baseline assessment did appear to have informed the selection and development of all three initiatives, there was one notable omission: demands/workloads. The context was an influential barrier once again; the organisation had lost approximately 25% of its workforce over four years yet was required to deliver largely the same services to its community. Research suggests that demands may be addressed by other means, such as job redesign interventions to increase control (Wall et al., 1986), and not only by directly reducing work or employing more staff (e.g. Rickard et al., 2012). However, the viability of attempting to directly reduce workloads under these circumstances meant this issue was not targeted by any of the interventions.

The fact that other issues with potentially 'simpler' solutions were prioritised also highlights some of the realities of addressing organisational stressors. Feasibility and resources are clearly an important factor in organisational interventions (e.g. Baril-Gingras et al., 2012) as shown by constraints to tailoring actions to individual areas of the organisation. However, the fact that senior management and the steering group were still intent on acknowledging and acting on the findings, could be considered a facilitating factor. Interventions have foundered at this stage before, following lack of support or resources allocated to subsequent implementation (e.g. Biron et al., 2010; Coffey et al., 2009). It is worth reiterating the point made in the planning and implementation chapter (chapter six) that information on how findings were translated into actions could not be directly observed by the researcher due to this process happening internally, outside of steering group meetings. Therefore evaluation was based on how clearly the links between findings and actions could be determined by the researcher; this was largely drawn from the content of interventions and the summary of findings and actions that were shared with

staff. Although some discussion with individual steering group members did inform this to a degree, the actual *process* and rationale for how decisions were made was not directly observed.

Phase 4) Implementation

A key question for the 'implementation' phase was the extent to which interventions reached those targeted by the interventions (Nielsen & Randall, 2013), and the perceived quality of them. The *effect* of intervention exposure and ratings was discussed at length in the previous chapter and is discussed further in the 'effect evaluation' section next, but broadly speaking, ChangeComms and PDF were aimed at all staff and reached most of the sample. But the majority of respondents rated them 'neither positive nor negative'. Meanwhile, far fewer attended the mental health awareness training, being originally set up for managers, but they were generally rated positively.

Furthermore, the survey itself was a more general component of the process as it formed the basis for what followed, and the feeding back of survey findings was intended to ensure employees felt their views had been heard and were being taken into account. Due to this lack of information, it appeared initially to the researcher (and possibly the employees) that nothing was happening. Yet from the researcher's membership of the steering group, it seemed that management prioritised the *action* and did not fully appreciate the importance of the communication despite it being emphasised by the researcher. However, this failed to consider the role of communication in fostering employee support, goodwill and faith in what was being done (Mellor et al., 2011; Nielsen et al., 2007). Therefore when actions were implemented it may not have been obvious to

employees that they had been based on their survey responses, and so could have seemed a top-down approach instead.

Nevertheless, the summary of findings released by PublicOrg to staff was brief but did generally reflect the baseline findings; yet only 40% of the repeated-measures sample reported they had seen them (34% of the full T2 sample, of 1,008). The sense from some of the comments (and the researcher) was that if there was any impetus that had come from the baseline survey it was likely to have been lost by the poor handling of the survey feedback. Participation is more than just giving your view, it involves management listening and showing that employee concerns are taken seriously (Wood, 2008), because '[employee] *voice is meaningless if the message is ignored'* (Strauss, 2006; p.779). The long delay between T1 survey and the sharing of results, in addition to the promotion of it, neglected this important element and was a disappointment to many participants. Some saw this as evidence for their initial scepticism about the process, a finding echoed by Smollan (2015) when cynicism and a perception that consultation was insincere resulted from a lack of communication about changes.

Phase 5) Effect evaluation

At first glance, the results appeared to show no overall improvement in the majority of variables from baseline to follow-up surveys, with significant worsening in 4 out of 15 variables (*job stress*, *control*, *peer support*, & *change*). However, the importance of going beyond mere pre/post analysis of changes to outcome variables was stressed by Randall et al. (2005), and if analysis went no further, findings could be misleadingly disappointing. However, a key aim of the 'effect evaluation' here was to assess the effects of employees' intervention exposure and perceptions and following Randall and colleagues' approach the

inclusion of simple process evaluation measures in a quasi-experimental, adapted study design, permitted more nuanced conclusions.

Nielsen and Randall (2013) suggest that process evaluations ask the question of which aspects of intervention activities were responsible for changes, in order to shed light on some of the mechanisms by which effects occur. Precision regarding the intervention elements associated with changes is difficult because it is recognised that the measures used here were simple, but there were some patterns. To recap, the initiatives were; ChangeComms, which updated staff on the budget cuts and potential changes; PDF, which aimed to modify the appraisal and development system in a more supportive way; and mental health awareness briefings for line managers. Together, these actions attempted to address how change was managed, and employees were recognised, and supported.

Interestingly, for the two interventions that could be analysed to assess the effects of intervention exposure and perceptions (ChangeComms & PDF), there were contrasting results regarding whether it was exposure alone, or perceptions, that were associated with significant effects. There were significant effects of exposure to ChangeComms on three of the target variables (*change*, POS, PSC): these variables remained stable for those exposed to the intervention, but worsened in comparison for those who were not. However, this 'effect' was not present for any outcome variables based on employees' rating of ChangeComms, by those who had experienced it. In other words, it did not appear to matter what employees thought about ChangeComms because the benefits appeared to come from 'attendance'. The reverse pattern was shown for PDF, in that merely being exposed to PDF was not associated with any changes, but employees' ratings were. The trend here was for positive raters to show slight improvements in *manager support, role*, and *change* alongside worsening for negative raters.

These results may contrast, but they do not necessarily contradict. Randall et al. (2005) discriminate between active and passive interventions and that different measures will tap into different components for each. For example, they suggest 'involvement' may be an appropriate measure for interventions requiring more active engagement (such as PDF here, which was based on interaction with their line manager). However, interventions with more passive mechanisms (e.g. ChangeComms, which did have interactive components but was more about communicating change-related updates) may be measured by 'awareness'. The present study differs slightly from Randall et al. (2005), in that it uses 'exposure' to intervention (yes; no) and 'rating' (positive; negative; or neither) rather than Randall et al's 'awareness' (yes/no) and 'involvement' (yes/no). However, the distinction between active and passive interventions may be helpful in interpreting this apparent discrepancy. PDF provided a supervision (meeting) framework that made constructive feedback and recognition explicit components of the process (i.e. these elements were specified on the proforma that supervisors would use to document supervision meetings). However, improvements to perceptions of *manager support* should be expected to derive more from how subordinates rated PDF, and the interactions it generated, rather than the mere fact their manager was following a new process. In contrast, attendees at ChangeComms sessions may not like the information they have heard (e.g. where cuts might be happening), but it may still reduce the deleterious effects of uncertainty or rumours (Allen, Jimmieson, Bordia, & Irmer, 2007).

If the distinction between active and passive interventions suggests differences in the 'active ingredient' (i.e. mere exposure to the intervention, or perceptions of it), Brough and Biggs (2015) draw a further distinction: between positive and negatively oriented interventions. Brough and Biggs (2015) suggest organisations should target both positive

and negative work-related outcomes, echoed in policy reports, proposing the workplace as a vehicle for the promotion of positive health (e.g. Black, 2008; Foresight Commission, 2008; NICE, 2009a). Although this was not a stated aim of PublicOrg's actions, which took a risk assessment approach discussed in the literature review, it could be reasoned that while ChangeComms was aimed at addressing a negative component (the impact of budget cuts and change), PDF was promoting positive work experiences in the form of recognition, for example. Of course, this is post hoc reasoning, but the apparent buffering effect of ChangeComms and improvement (albeit slight) associated with PDF participation is supportive of Brough and Biggs' (2015) proposition. It also suggests that attempting to minimise risks does not necessarily preclude implementing more positively oriented actions where they are addressing a perceived deficit.

This buffering effect of ChangeComms is in line with Park et al. (2004) and DeJoy et al. (2010) whose study also took place against the difficult and turbulent backdrop of economic recession. Research suggests the negative impacts of loss or negative consequences are greater than the positive effects of gain (e.g. Tversky & Kahneman, 1991). It could be argued that work to provide support against potential 'threats' would have a bigger impact under these circumstances than something that 'promotes' positive resources (Hobfoll, 2014). This was particularly salient in this context where, for example, uncertainty about the future and increasing workloads (e.g. Smollan, 2015) presented several such 'threats. Hobfoll's 'Conservation of Resources' theory (CoR; 1989) proposes that individuals seek to 'protect' their personal resources, so interventions which maintain or boost these 'resources' (e.g. 'resources' such as the information provided by ChangeComms) can have a protective effect against such mounting pressures (Weinberg, 2016). There are also parallels between the buffering effect suggested here and Hasson et

al. (2014), where significant (negative) effects, associated with interventions, also tended to occur where initiatives were not implemented.

In general, statistical interaction effects, linked to intervention exposure/perceptions, were predominantly associated with changes to proximal measures (e.g. psychosocial conditions), rather than intermediate and distal outcomes, such as *job stress* or GHQ. However, exposure to ChangeComms was linked to small effects on *job satisfaction*, with those who were not exposed to it showing a decline. Employee perceptions of PDF were also linked to effects on JRWB, with those reporting positive perceptions showing an improvement, and vice-versa for negative raters. This suggests that changes to proximal measures may have begun to affect these more distal, downstream outcomes, although these were comparatively small statistical effects at this stage.

Nonetheless, there was more to it than just the interaction between changes to proximal and intermediate outcomes based on intervention exposure or perceptions. There were also noticeable and statistically significant differences on variables present at T1 between those who rated PDF positively and negatively. This is discussed in a subsequent section that considers that interventions are likely to be accessed and perceived in different ways depending on employees' pre-existing perceptions of the work environment.

Factors influencing the overall process

The previous section has outlined how each phase contributed to the next and discussed the key effect-related findings, using Nielsen and Abildgaard's (2013) framework, which provides a relatively simple and logical approach to evaluating what is a complex process. Therefore, it is also worth recognising that the phases themselves may contribute to more than just the one that follows. For example, baseline assessment may aim to provide a

platform for employees for 'employee voice', but the actual form the baseline assessment took was decided during the initiation phase. Furthermore, although the baseline survey may then have offered employees an opportunity to have their say, the crucial component of feeling this was listened to (or not) manifested itself later on in this process when seven months passed without any communication to staff about the survey or findings; not to mention the sparse promotion of the findings when they were released. So, these phases are linked sequentially, but they are perhaps better viewed as successive layers upon which the others are built. Ostensibly, this relatively minor shift in perspective does not alter the utility of the framework, but may make this potentially crucial point more explicit and serve as a reminder to both researchers and practitioners using it to guide their project. In addition, some of the factors discussed in this thesis were influential in other ways and affected the process throughout; these are considered next.

a) Context

If each phase is considered the product of the preceding one, then according to stress-management cycle models the first phase could appear to have no antecedent phase to influence it. But it is clear that it is no 'blank slate' and organisational interventions do not operate in a vacuum. Nielsen and Abildgaard's (2013) framework – among others (e.g. Biron & Karanika-Murray, 2014; Nielsen & Randall, 2013) – recognise the relevance of the background context at the inception of the project. In PublicOrg's case external factors such as 'austerity' budgets and resultant staff cuts had hit them hard, manifesting itself during the 'initiation' phase and throughout the process; it was influential in providing the initial impetus to act, as well as affecting the time, resources, planning and delivery of intervention activities. There were numerous examples of how this influenced the process; workloads were cited as problematic by many survey respondents and, in common with

previous research (Coffey et al., 2009), some respondents indicated they found it difficult to find the time to complete their survey. Meanwhile, the steering group often had difficulty in finding space in members' diaries to meet, in addition to being pulled away from planned meetings by other duties. This in turn meant intervention components were either delayed (e.g. communication of survey results to employees), or did not happen at all (e.g. focus groups).

Nonetheless, it was notable that despite the pressure this had put on PublicOrg and employees, PublicOrg's MSI mean subscale scores were significantly better than the HSE's benchmark norms dataset on five of the seven subscales (from Edwards & Webster, 2012). This might be encouraging at any time, but is all the more noteworthy when considering the HSE's benchmark data were collected before 2008, and so unaffected by recession or austerity. There is no doubt these were difficult times for PublicOrg and its staff, as reflected in the survey comments, but this suggests conditions within PublicOrg were not as negative as might have been expected in the circumstances.

However, the announcement of a further round of budget cuts during the implementation period (approximately four months after the first survey) meant that interventions took place amidst further uncertainty. Several previous studies have reported similar occurrences during the intervention period (e.g. Olsen et al., 2008). This lends some perspective to the results, because in the face of such changes, negative effects on employees may be anticipated (Ferrie et al., 1998). Therefore relative stability could be seen in a more favourable light when interpreting findings; firstly, because Houdmont, Kerr, and Addley (2012) show negative trends in the public sector psychosocial environment even before the advent of 'austerity' and consequent cuts in their large-scale public-sector study. Moreover, both Wood and Ogbonnaya (2016) and Kiefer, Hartley,

Conway, and Briner (2015) demonstrate detrimental effects of organisational changes from the same series of national government-level budget reductions felt by PublicOrg; employees in organisations that had subsequently implemented cutbacks showed falls in job satisfaction and well-being a year later. Pertinently here, Kiefer et al. found even the mere announcement of the government's proposed budget cuts was associated with lower levels of well-being, compared to pre-announcement.

Downsizing and associated changes have been linked with negative outcomes, such as lower control, increased workloads and strain (Smollan, 2015), but this serves to highlight that the announcements themselves may also act as stressors. It also, reiterates the potential value of simple interventions such as ChangeComms, which attempt to inform employees about changes, to mitigate these outcomes. It should be noted that the budget cuts announced between the surveys were anticipated by PublicOrg, so were not unexpected, but the sheer scale of them appeared to be more of a shock. So, again it can be seen that context drove aspects of the intervention, in the form of ChangeComms, which was a response to the baseline survey findings and the knowledge that this further round of cuts was imminent.

b) Pre-existing expectations & perceptions of the psychosocial environment

'Mental models' have been highlighted as an influential factor in intervention success (Nielsen & Abildgaard, 2013; Nielsen & Randall, 2013); these can encompass a wide range of factors, but broadly concern the perceptions held by employees and stakeholders may hold towards the organisation and intervention activity. A related contextual element, beyond the circumstances and events surrounding the process, was 'readiness for change', which Tvedt and Saksvik (2012) identify as a relevant but under-researched element of the process. Nielsen and Randall (2013) propose that 'readiness for change'

creates a more receptive environment for interventions, which has implications for implementing organisational-level initiatives. Although it was not possible to specifically assess employee *readiness* to change, the inclusion of CAOC does provide an indication of employees' *expectations* of change, which has been considered an element of change 'readiness' in previous research (Choi, 2011). One of the aims of the 'effect evaluation' was to assess the relationship between CAOC and employees exposure and perceptions of intervention activity. Intervention research seldom appears to consider that such programmes are unlikely to be the first that employees have experienced and if previous experience of these has been disappointing then future efforts may be viewed more cynically and with less confidence in their success by employees (Reichers et al., 1997). This creates a potential problem as more cynicism may lead to decreased levels of interest or participation in future changes or initiatives (Biron et al., 2010).

For CAOC, on average, responses were fairly evenly split between agreement (28.2%) and disagreement (29.2%) with CAOC questions (e.g. '*attempts to make things better around here will not produce good results*'), with 43.6% indicating 'neither agree nor disagree'. There is no empirical consensus on what indicates 'readiness', although with just over a quarter of the sample agreeing with the CAOC items (i.e. expressing cynicism), this suggests there was certainly scope for improvement on this particular indicator. Whether this cynicism really did stem from negative previous experience is not clear here; only the level of CAOC was assessed here, *not* the reasons for it. However, qualitative data did provide evidence that some employees had misgivings at the baseline survey, due to their prior experience: -

- "*However, the results of [a previous survey] were buried and so as is the case with this survey now I believe that the intent is there and you have all of the right 'tick*

boxes' ticked - but in reality this does not filter down to the staff on the ground"
(participant T1:141)

- "*I think your (sic) a bit late the damage has been done. People have lost faith in [organisation] and management.*" (participant T1: 876)

While the follow-up survey suggests this process and perceived lack of efficacy had confirmed some respondent's lack of faith: -

- "*I feel as though I have completed numerous well-being and stress questionnaires but there is never any impact*" (participant T2: 309)

- "*I think on the last survey a lot of people thought it would be a waste of time as the questions around staff morale & bullying by management would be ignored which I would say is what has happened.*" (participant T2: 891)

It should be noted that this represents a very small number of the total comments provided by respondents (five comments at T1, and four comments at T2); nonetheless it is mentioned because if 'cynical' employees are less likely to participate (Biron et al., 2010), then this may represent a larger proportion of the workforce and also offer a reason why some did not feel it was worthwhile completing a survey.

The cynicism measure used here (Wanous et al., 2000) was specific to organisational change; however, cynicism is also categorised as a symptom of burnout in the depersonalisation subscale of the Maslach Burnout Inventory (Maslach & Jackson, 1981), which in turn correlates with GHQ score ($r = .39$, Demerouti, Mostert, & Bakker, 2010). Baseline GHQ and CAOC were significantly correlated in the present study ($r = .41$, $p < .001$). This appears to confirm that CAOC relates to more than just disappointing previous experience of change, but suggests something even more important in the context of this

study. If poorer psychological health (i.e. higher GHQ scores) is associated with greater cynicism, which would be expected to predict lower levels of engagement with stress and well-being initiatives, then it is possible that some of the very people most in need could be the ones missing out.

Indeed, this is what was suggested by quantitative analysis, and not only regarding CAOC. Data shown in the repeated-measures ANOVA tables and illustrated by the interaction plots in the 'effect evaluation' chapter indicated that respondents who reported experiencing the interventions, or who rated them positively, tended to differ at baseline on their mean scores across the many of the outcome variables (e.g. GHQ; *manager support*; POS). That is, employees who were 'better off' regarding their perceptions of the psychosocial environment or levels of psychological health/well-being at baseline tended to have more positive perceptions of the interventions, so there may be an element of 'preaching to the converted', or 'self-selection', a pattern also seen in related research (e.g. Björklund et al., 2007; Nabe-Nielsen et al., 2015; Nielsen & Randall, 2012; Randall et al., 2009). This was clearly demonstrated regarding the (voluntary) mental health awareness sessions, as those who attended were significantly more confident in their ability to discuss stress and mental health issues of others beforehand.

The partial correlation analyses in the previous chapter suggest that some of the variance in those pre-existing differences in perceptions of the psychosocial work environment, based on subsequent experience or rating of interventions, was accounted for by baseline levels of CAOC. In other words, controlling for the effects of baseline CAOC reduced the association between T1 perceptions of the psychosocial environment and subsequent participation. Given this finding, and some of the process-related issues described throughout there is a danger that poorly implemented elements of the process, such as the

poor communication of survey results to staff may serve to reinforce these existing negative perceptions that some employees felt at baseline (Choi, 2011). Employee involvement and effective communication about the process may reduce negative perceptions such as cynicism (Brown & Cregan, 2008), so this was something that PublicOrg needed to be more mindful of as they proceeded.

Interestingly, the effect of pre-existing perceptions/well-being on participation in activities is shown by Ding, Berry, and O'Brien (2015), in a community-based study, which has implications for intervention research. Ding et al. found that participation in community activities was linked to subsequent improved well-being. However, of particular relevance here, is that initial levels of well-being were predictive of such participation; in other words, people who have better well-being access opportunities that benefit them further – and vice-versa. Van Dierendonck et al. (2004), for example, suggest that where employees' well-being is diminished, they may be less responsive to the social environment, whereas support may be more readily accessed by those who feel more positive (p.166).

This emphasises the reciprocal relationships that may exist between pre-existing conditions/well-being and the way interventions are received, and thus their effects. This could feed into continued positive or negative perceptions; in simple terms, a virtuous – or vicious – cycle develops depending on whether one is initially satisfied or cynical, analogous to the 'resource caravans' and 'loss spirals' of Conservation of Resources theory (CoR; Hobfoll, 1989). Yet regardless of the reasons, if organisations are planning change-related initiatives, there will inevitably be differing pre-existing views within the workforce, and these appear to have a material effect on take-up and perception of intervention activity.

In terms of providing the conditions to facilitate involvement in intervention activities, Nytrø et al. (2000) assert the importance of trust in the introduction of new initiatives. Albrecht (2010) found that involvement in, and information about, change initiatives were both predictive of trust (in senior management), which in turn (negatively) predicted cynicism. As cynicism has been linked with lower receptiveness to interventions, this underscores the importance and possible facilitating role of communication and participation, in reducing cynicism via increased trust. That is, it can act as a signal to employees that 'resource investment' (e.g. accessing interventions, in this case) is worthwhile and likely to lead to desirable outcomes (Campbell et al., 2013).

c) Employee participation and communication

The importance of employee participation has been highlighted previously, as have some of the practicalities that may hinder it, such as resource constraints or bureaucracy (e.g. Mellor et al., 2011; Parker & Bradley, 2000). Participation has been proposed to improve perceptions of job control (Le Blanc et al., 2007) but this refers to more 'hands-on' participation such, and thus a survey represents a relatively limited opportunity for involvement in comparison (Grawitch et al., 2009). However, NICE (2009) and the Foresight Commission (2008) highlight the benefits of regular surveys in keeping employee well-being on the organisation's agenda. The importance of ongoing evaluation of organisational progress with regard to psychosocial conditions and well-being has been affirmed, to ensure effectiveness of interventions is monitored and adjusted as required (Giga, Cooper, et al., 2003), and surveys can facilitate that process. Furthermore, although they have limitations, if surveys are acted on and *are seen to be acted* on then they could be viewed as a vehicle for employee voice. The problem comes when they are not seen to be acted on.

As befits a complex process, locating specific 'causes' or points in the process that contributed to the overall success (or otherwise) is also far from simple; however, locating these issues within Nielsen and Abildgaard's framework suggests that communication of (a) the survey, at the 'initiation' phase and (b) the survey findings after the 'screening' phase was particularly problematic. At the outset of the project, it was anticipated that communication would play a role in the process, but the extent of its influential role was greater than expected. Communication is multifaceted and it is not just a case of more is always better (Wanberg & Banas, 2000). However, keeping employees informed on the progress of intervention programmes is important (Sørensen & Holman, 2014) and employee awareness of organisational stress-management activity has been linked to improved perceptions of the psychosocial environment and trust in senior management (Pignata et al., 2014; Pignata & Winefield, 2013). This was emphasised and agreed with the steering group in the first two meetings. Despite this, communication was problematic at every stage; i.e. survey promotion at both T1 and T2, keeping employees informed about progress, and sharing of findings. Seemingly, a lack of awareness of the baseline survey restricted the sample and thus the opportunity for involvement that was available. Moreover, despite PublicOrg taking action in response to the baseline survey, this was not made explicit to the workforce until after interventions had been implemented, and was not seen by the majority of the sample.

Consequently, interventions that were actually based directly on employees' survey responses and suggestions may instead have appeared as discrete, management-directed initiatives. Ryan, Williams, Charles, and Waterhouse (2008) highlight the barrier this can present when implemented changes are perceived as coming from 'head office', rather than consultation. This is compounded here with 62 T1 survey comments referring to

senior managers, including the suggestion of apparent mistrust in senior management motives and their knowledge of 'frontline' issues.

- *"Senior managers One rule for them and another for frontline staff"* (participant T1:1328)

- *"Sick to death of change being forced upon us by bureaucrats who have no idea of what the real world is like."* (participant T1:590)

There may be an argument for prioritising the development and implementation of actions, with communication as a 'nice to have', but this study strongly suggests otherwise. It was promised at the outset to employees – via the 'promotion' of the survey and the participant information sheet – that findings would be shared with staff, but this was beset by substantial delays and poor communication. In this light maybe *"unmet expectations are worse than no intervention at all"* (Biron & Karanika-Murray, 2014, p. 7), and the perceived failure to fulfil them, due to long delays and lack of information, may have had negative consequences (e.g. Logan & Ganster, 2005). Daniels (1989, cited in DiFonzo & Bordia, 1998) defines trust as the consequence of a match between words and actions and in light of the cynicism felt by some of the sample, what could have been an opportunity to build trust in the process may – for some – only have confirmed their initial scepticism.

Ironically, a key reason for delays in sharing survey findings was a concern expressed by one steering group member about releasing them without being able to show what PublicOrg planned to address the issues raised. That is, they wanted to demonstrate that PublicOrg were acting on survey findings. Open communication can facilitate the implementation of changes (DiFonzo & Bordia, 1998; Nielsen et al., 2007); but Nytrø et al. (2000) argue that communication is a necessary *but not sufficient* prerequisite for successful change projects. Attention must be given to action: Björklund et al. (2007)

assessed the efficacy of a survey feedback intervention and concluded that feedback alone was insufficient, and that attendant actions plans must also be implemented. This ostensibly supports PublicOrg's reluctance to release feedback without an action plan and Björklund et al. (2007, p. 88) affirm that it is the "*creation of an action plan with concrete activities to enhance the work environment that yields improvements regarding factors in the psychosocial environment*". A point underscored by Nielsen and colleagues (2007), where the receipt of adequate information of their intervention project predicted participation, but disappointment and negative results where information was not followed up by actions.

Therefore, there is some logic to this steering group member's call to wait until actions had been planned before sharing the findings, but it missed a key point. This is shown by DiFonzo and Bordia (1998) when the desire to get messages and plans aligned before making announcements led to loss of morale and feelings of anger (albeit in context of a merger). It is possible that in some settings such a failure to follow-up on promises may reflect a lack of concern for employees, but based on the evidence this was clearly not the case here. This was perhaps the most frustrating aspect; senior management at PublicOrg and the steering group were concerned and did want to do something for their employees, yet this poor handling of the survey findings only served to give (at least some) employees the opposite impression. Nonetheless, the media story that used the T1 survey findings in an unflattering article about PublicOrg does provide some indication of why there may have been caution regarding how they were shared with employees. However, the implication of the present study is that these actions needed to not only be linked to the survey findings, but clearly communicated as such.

At the beginning of the project it was anticipated that employees would see the intervention activity following their survey and, aside from their views on the specific interventions, would perceive the response as evidence that PublicOrg was listening to them and taking their concerns seriously. Both of these elements are captured by POS and particularly PSC, but there were no overall changes to these variables, despite being proposed as potentially sensitive indicators of organisational level action (Dollard & Gordon, 2014). This can be explained by the aforementioned delay and poor communication of the survey findings which meant interventions were not strongly linked to what employees had raised in the survey at T1. This could negate the sense of having one's concerns listened to and acted upon, even if actions were positive.

However, there was some evidence from the qualitative data at T2 to suggest that, at the very least, PublicOrg's intervention-related efforts were noted at some level. There were a larger number of staff comments at follow-up indicating that *PublicOrg* genuinely cared about its staff (31 comments, compared to 6 comments under this category at T1). Although this only represents a simple comparison of the number of comments in each category and therefore cannot be considered as conclusive, it was based on responses to the same question at both time-points ("*what do PublicOrg do well with regard to staff well-being*?") so this difference was noteworthy. Nonetheless, as illustrated in chapter six, the comments tended to acknowledge these efforts but were often muted in tone.

d) Line managers

Nielsen and Randall (2013) identify the important role played by middle managers in the process, but specific detail regarding the role of line managers here in this project was limited. Line managers were targeted by mental health awareness sessions, but it appeared there was no direct role for them in the intervention process itself. There were suggestions

during early steering group meetings about ensuring managers were well-informed about the survey and project to help them encourage survey participation amongst their teams.

Nielsen and Randall (2013) ask three key questions about line manager involvement: did they support the project; did they encourage participation by their teams; and, did they act as links between their staff and senior management? Despite limited information regarding manager involvement the indications are that the answer to these is largely 'no', simply because they were not informed enough to do so. Managers were informed about the survey alongside other staff so were unable to fulfil this role.   Biron et al. (2010) found that line manager implementation of intervention activity was a key barrier to its success; in the present study, the manager-related barrier was a failure to adequately inform and engage managers in the overall intervention process.

e) Senior leadership support

Senior management support for intervention projects is consistently highlighted as crucial (e.g. Aust & Ducki, 2004); however, it is still relatively undefined in the literature and unclear how this should be recorded (Baril-Gingras et al., 2012). The role of senior management has been discussed at length during the thesis, simply because it was put to the test throughout (e.g. negative media headlines; budget cuts). However, in contrast to many studies (e.g. Mikkélsen & Saksvik, 1998), it was maintained. Senior management support has been a recurring post hoc explanation for intervention 'failure', but seldom formally evaluated (Nielsen & Randall, 2013), so the documentation of their role *during* the process is relatively novel.

The presence of senior management on the steering group ensured it had decision-making power, but as also noted by Nytrø et al. (2000) their seniority also meant they were

perhaps not always able to be closely involved in the project due to the accompanying demands, and illustrated by the cancellation of several meetings. Following the initial meeting with the researcher, the PublicOrg leadership team were quick to give the go ahead and convene the steering group. This was an organisation-wide project in a large public sector organisation, so although the delays caused frustration for the researcher it was remarked at different points in the process (independently by three steering group members), that the way the project had proceeded actually represented speedy progress for PublicOrg. Indeed, instances were described where smaller scale proposals than this had taken over a year to get to even the agreement stage, yet this research project proposal had reached the leadership team and been formally agreed by them within two months. So, senior management were behind it, but did they *support* it?

In this setting there was a clear distinction between motivation and material support; for instance, senior management showed support in terms of motivation and resolve, as demonstrated by their willingness to acknowledge and act upon the baseline survey findings, as well as eventually sharing a summary of results with staff. On the other hand, it could be argued that material support was lacking with no budget allocated to the project and the cancellation of several steering group meetings. Lack of congruence between senior management's words and actions has been implicated as contributory factor in intervention failure (e.g. Mikkélsen & Saksvik, 1999) and research has tended to report the negative influence of lack of senior management support (Nielsen, Randall, et al., 2010). However, the evidence from the present study suggests this was not the case here and senior management was simply unable, rather than unwilling, to give the project the material support they might have liked.

f) The steering group and coordination

Unions were involved in the steering group from the beginning and supportive of the project throughout. Prior to the first survey, they took the draft version of the baseline survey to a selection of staff to gauge feedback about the content and influenced the selection of measures (i.e. POS). The union representatives were appreciative of the baseline survey findings, seeing it as a positive step, and welcomed PublicOrg's openness regarding the survey and its willingness to recognise issues and take action. Despite the mixed and modest findings from the follow-up analyses, it was notable that after the T2 survey findings were presented to the steering group, one union representative expressed that real progress had been made. For example, some of the implementation-related issues highlighted by the researcher in the T2 survey report (e.g. lack of communication) had begun to be addressed, while there were plans afoot to address others (e.g. the staff focus groups that had not gone ahead during the research period). The union representative suggested that as a result of the project PublicOrg was better placed to make progress regarding staff well-being. It was also decided by PublicOrg that the steering group – originally set up in response to this research project – was to continue as a permanent entity, and this can also be considered an important intervention outcome and indicator of PublicOrg's commitment to sustaining it (Biron, 2012).

The extent of most other steering group members' role in the process is less clear; they fulfilled their various functions, and appeared to be supportive of the project, but their significance to the process was not as evident. What does seem clearer were the limitations around coordination, this issue was not as strongly represented in the intervention literature as other process-related factors identified in the literature review, although it has featured (Nytrø et al., 2000). It appeared there was no one person from

PublicOrg who was explicitly tasked with ensuring action points were followed-up and that plans were on track. These action points were reviewed at steering group meetings, but uncompleted actions were often only noted after long periods had elapsed. For example, the agenda for one meeting was around planning the release of the survey, yet it ended up focusing on a 'memorandum of understanding' previously flagged by the researcher that should have been addressed months before. This change of agenda delayed the release by over four months. In the absence of a clear lead, the researcher was frequently required to push for progress and held informal meetings with individual steering group members over the course of the project to check on progress or prepare for work required at various stages. While these coordination-related issues led to much frustration on the researcher's part, this criticism is not intended to be disparaging but to identify a potentially important hindrance to the process. Under the circumstances, it is clear that steering group members had many other responsibilities, in common with many PublicOrg employees, and this project was yet another.

The majority of the aforementioned individual meetings called by the researcher were held with one particularly proactive and supportive senior member of the steering group; this steering group member had been the initial instigator of the project after the researcher's approach to PublicOrg. These meetings were valuable in informing the evaluation and keeping the researcher updated on project progress within PublicOrg. However, from a project perspective they performed a further crucial function – particularly during the periods where progress or communication from PublicOrg appeared to stall. They allowed the researcher to raise concerns – generally about the lack of progress at several points – which were then taken up internally (e.g. to relevant steering group members). This often seemed to prompt action or a response and, based on the number of times their

involvement was required to kick-start the process, it is considered highly unlikely the project would have reached fruition within the allotted timescale without them.

This underlines the potential role of 'drivers of change' (i.e. key personnel), which is noted by Nielsen and Randall (2013) alongside a cautionary note. They warn that over-reliance on particular individuals to drive a project may present a risk should they step away for any reason (e.g. Dahl-Jørgensen & Saksvik, 2005). Since the follow-up survey, a new chair of the steering group has been installed due to a change in responsibilities of the former chair; this did not have any effect on the process or outcomes discussed here as these had already taken place, and this may not have any effect on future work. However, the former chair was influential and particularly enthusiastic about the project so it is noted as an illustration that such changes take place.

Nielsen and Randall (2013) call for detail on the role of external consultants in the process, and in this case this could be considered as the researcher. The thesis has already made reference to the role of the researcher in the process at several points (e.g. pressing for progress on agreed actions). Because the research was based around the two surveys, it was the researcher who conducted these, and the baseline assessment in particular was a core component of the project because the planning and implementation of interventions were founded on it. Therefore the issues faced by the researcher in interpreting the data were of importance to the process and is explored further on in the discussion.

g) Sample characteristics

In conjunction with some of the practical challenges of interpreting MSI data for risk assessment purposes, there were also notable issues for PublicOrg in obtaining survey participation. The reasons have already been discussed, and have implications for

representativeness; 31% of workforce took part at baseline and 27% at follow-up, and the matched sample of 552 represents only 15% of the workforce at the time of the second survey. In terms of demographic characteristics, for example, it was noted that the proportion of part-time staff, in particular, was lower than the overall population at baseline, and so were less represented here. Although part-time employment has been associated with lower psychological strain (e.g. Quinlan, Mayhew, & Bohle, 2001) this is not clear-cut (Bartoll, Cortes, & Artazcoz, 2014) and NICE (2009a) guidance advises that all employees should have sufficient opportunities to access intervention information and activities, citing part-time staff as a particular group that may be missed out of well-being related activity.

The risk assessment and the research were carried out at the organisational level, but it was also shown that participation in the survey varied by department (from 16% to 50%). Information was not available to provide definitive conclusions about this, but the department with the lowest rate tended to include roles that were less likely to access IT facilities as part of their duties (e.g. waste management, or maintenance). Paper copies with pre-paid and university-addressed envelopes were available, but given that the majority of survey promotion seemed to occur via PublicOrg's intranet or email, this suggests that either there was a comparative lack of interest in participating, or that information on the survey was not forthcoming via their line managers. Regardless of the reasons it does suggest the need for more systematic promotion to ensure the views of under-represented groups are included.

In terms of study variables, there were no significant differences between employees who completed both surveys (n = 552) and those who 'dropped out' (i.e. completed the T1 survey only), with the exception being *control*. Employees with lower *control* could have

more trouble arranging their work-time to complete the survey, but then one might expect *demands* to have a similar effect yet that was unrelated to attrition. Moreover, PublicOrg allowed staff time during work to take part during work time and, to the best of the researcher's knowledge, this was adhered to. Nonetheless, whether all line managers ensured employees were granted this time is also unknown. Tellingly, the comparison of T2-only responders and those completing both surveys showed a similar pattern, for *control*, with T2-only having a lower (poorer) mean score. This lends support to the assertion that lower control over work was connected with allocation of time to complete survey completion itself, rather than it being linked to 'dropping out'.

A further, related, possibility could have been that because lack of control is characteristic of lower occupational levels (Marmot et al., 1997), it could be related to seniority; with more junior roles having less discretion to choose if or when to participate, reliant on line manager's permission. However, a post hoc χ^2 test showed that the proportion of participants at the three levels of management captured by the survey (non-manager, manager, middle/senior manager) at both time-points were not significantly different (χ^2 (2) = 1.82, *p* = .40). Information regarding line managers' role in the project was limited, but there were indications that they were not systematically involved in the intervention process; their support for intervention activity has been shown to be influential (e.g. Nielsen & Randall, 2009) and so is worthy of further exploration.

The trend for employees who completed both surveys, compared to T2-only respondents, was for the latter to be 'better off' on all psychosocial variables (e.g. with significant differences in *demands*, *role clarity*, POS, and *job insecurity*); with the exception of *control*, described previously. This could indicate a degree of motivation to take part among less satisfied employees. Rogelberg, SpitzmÜEller, Little, and Reeve (2006)

suggest that employees may have few avenues to voice dissatisfaction, so may therefore see surveys as such an opportunity, and their study found dissatisfaction with a topic covered by a survey was a significant predictor of subsequent survey participation (i.e. less satisfied, higher participation). On that basis, the PublicOrg employees taking part in these surveys, and particularly at both time-points, may be more negative than the workforce as a whole.

Review of process evaluation framework

The challenges inherent in this type of research have been highlighted throughout the thesis, and will be discussed further in the following section. However, having reviewed the intervention process, it is also relevant to reflect on the efficacy of the process evaluation theoretical framework itself.

Nielsen & Abildgaard's (2013) framework fits well with relevant stress-management and intervention implementation frameworks recommended in the literature (e.g. HSE, 2007; Kompier et al., 1998). It also offered a practical model of process evaluation; specifically its conceptualisation of each phase as an outcome of the previous one, to isolate where in the process issues may have manifested themselves. By framing the phases in this way, it enabled a way of identifying how well each phase fulfilled its main aims, as described at the beginning of this chapter; there were issues at each phase, with communication before and after the 'screening' a particular issue. Nonetheless, Fridrich, Jenny, and Bauer (2015) offer some criticism of this framework's inclusion of 'effect evaluation' as a separate concluding phase. Fridrich et al. (2015) instead advocate ongoing observation and measurement at multiple points and stages of the process; in other words, having some form of 'effect evaluation' after *each* phase, to enable findings to be fed back *during* the process to further improve it. This aspect is more comprehensive and ambitious in scope

than Nielsen and Abildgaard's framework, and would surely be beneficial, but the dearth of longitudinal organisational intervention research and challenges of obtaining even a single follow-up measurement suggests this could be difficult to achieve.

Moreover, although the phases are viewed in this framework as discrete steps, Nielsen and Abildgaard's framework also acknowledges the range of other factors that can manifest themselves throughout the intervention process; i.e. the 'drivers' of the process, such as management support, and contextual factors such as concurrent organisational changes or the general organisational and economic backdrop to the project. However, a related critique by Fridrich et al. (2015) suggests that although evaluation frameworks such as this represent significant progress, that they are too broad to allow direct comparison between evaluation studies. This is an issue, and such is the complexity there is only so far an evaluation such as this can go in *precisely* identifying and evaluating these contextual factors and 'drivers' that influenced the process. For example, in the present study it is possible to trace back the crucial communication-related issues to the context (austerity) via the ensuing reduction in the time and resources available to the steering group, and the consequent lack of coordination of steering group activity. However, it is recognised that this cannot tell the whole story, and there is currently no 'neat' model that can sum it up. This is to be expected if '*the most that can be expected from any model is that it can supply a useful approximation to reality*' (Box, Hunter, & Hunter, 2005, p. 440), particularly given the current evidence-base.

With the field in its infancy, definitive standards on what exactly should be included and how they are defined are perhaps unrealistic at this stage. Highly detailed and comprehensive models may offer too much complexity for a field that currently lacks clarity (Havermans et al., 2016), so Nielsen and Abildgaard's approach provides a broad

outline framework of the process which can be adapted and is suitable for building the evidence. A more recent framework from Biron et al. (2014) has strong parallels with Nielsen and Abildgaard's, and follows a similar stage-based approach, drawing on Nielsen and Randall (2013) to provide guidance on the specific questions researchers should ask of each phase. This too may be useful in guiding future process evaluations, and as research and knowledge develops, more specific and prescriptive models such as those called for by Fridrich et al. (2015) may be more appropriate. However, even then, gathering all the data they might prescribe is no small task.

There has been very little research utilising Nielsen and Abildgaard's framework, but in light of Fridrich et al's critique, it is interesting to note the slight differences in process evaluation factors considered by the other study that has employed it (i.e. Muuraiskangas, Harjumaa, Kaipainen, & Ermes, 2016). For example, Muuraiskangas et al. (2016) report the specific motivation of participants, in their individually-focused intervention study (a digitally delivered mental health intervention), but were unable to document senior management support. However, the focus on the phases and how they contributed to the process was incorporated and suggests the applicability of this element of the framework in different contexts. It is difficult to consider all process-related eventualities (Nielsen & Abildgaard, 2013), but this framework was useful in the present study in focusing attention on specific phases of the process, which more comprehensive overarching frameworks without that temporal element were less suited to (e.g. Nielsen & Randall, 2013).

Process evaluation conclusion

This section has highlighted the key factors and findings from a complex and dynamic process, utilising Nielsen and Abildgaard's (2013) process evaluation framework. Overall, follow-up survey findings indicated relatively little change from baseline during the

project, but there were effects detected related to employees' exposure and ratings of PublicOrg's actions. Furthermore, the turbulent backdrop posed a challenging context in which to introduce such initiatives but was also a key driver in the initiation of the project. There are many lessons for PublicOrg, and other organisations looking to take similar steps; for example, the poor communication of the baseline assessment limited awareness and survey participation, but also affected employees' awareness of what had been done as a result. This underlined the importance of coordination and effective communication throughout. But in taking lessons away from this study it is also relevant to consider how widely applicable these findings are; there are methodological factors that affect the strength and confidence that can be placed in such conclusions. The preceding chapters detailed the process and contextual factors involved in the intervention project; the following section discusses how well-placed the study was to be *able* to evaluate its efficacy.

Methodological discussion and future research

Study design

This type of research is notoriously fraught with methodological pitfalls and challenges (Griffiths, 1999; Olsen et al., 2008) so it is important to consider relevant limitations. Giga, Cooper, et al. (2003) highlight the 'extreme difficulty' of implementing systematic evaluation of organisational interventions. Based on the work of Cook and Campbell (1979), Cox, Griffiths, Barlow, et al. (2000) argue for pragmatism when researching such complex and dynamic environments and that the ability to draw 'good enough' conclusions should be the goal. This is entirely in accord with calls for more focus on process (Biron & Karanika-Murray, 2014; Nielsen & Abildgaard, 2013; Pawson & Tilley, 1997) and was the approach taken by the present research. Absolute precision,

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or an evaluation of complex interventions that can answer all questions, is simply unrealistic (Cronbach, 1982, cited in Pawson & Tilley, 1997; Shadish, Cook, & Leviton, 1991).

However, it is still important to ensure the study design is as robust as it can be within the constraints of such a complex environment (Semmer, 2006). Campbell and Stanley (1963) identify several potential threats to the causal validity of pre- post-intervention designs without pre-allocation to control groups. Hunter and Schmidt (2014) affirm the potential for these threats to affect validity should be considered and addressed, but only where they are plausible risks. It is unlikely, for example, that the potential threats that Campbell and Stanley term 'maturation',' testing effects',' instrumentation', or' regression to the mean' are plausible threats to external validity here. That is, there are no strong grounds to assume that ageing over the intervention period ('maturation'), or that practice effects ('testing effects') would be an issue in the way it would be in the repeated administration of IQ tests, for example. Furthermore, because participants were not allocated to groups on the basis of extreme scores at T1, 'regression to the mean' should not be relevant here either. Regarding 'instrumentation', the study used the same outcome measures in the survey at both time-points in the repeated-measures analysis.

However, there are three potential threats to external validity (generalisability), termed 'history', 'reactive situations' and 'interaction between selection and treatment' (Hunter & Schmidt, 2014). 'History', where uncontrolled external events may influence the outcomes appears to be a fact of organisational life and featured in the study. It was not possible to control for events that may have affected intervention(s), but ongoing documentation of the process has enabled at least some of these to be made explicit (e.g. the announcement of further budget cuts between baseline and follow-up surveys). This

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provides some context and perspective when interpreting the findings. Meanwhile, the possibility of unintended consequences from the way an intervention is administered may have been a further threat to validity (i.e. 'reactive situations'; Campbell & Stanley, 1963). A telling example from the present study was the delay to the survey feedback, which some respondents indicated their unhappiness with in the follow-up survey, while similar issues related to unfulfilled expectations have been seen in other research (Aust et al., 2010; Biron et al., 2010). The final 'threat' concerns the potential 'interaction between selection and treatment' (Hunter & Schmidt, 2014); in other words, is there something about the selection process that affects the efficacy of the treatment? In fact, this has already been introduced earlier in the discussion as it represents the tendency here for employees who were 'better off' at baseline to be more likely to access interventions and benefit from them. So this was present. For an outcome-only evaluation, these threats to validity would be particularly problematic, and are undoubtedly factors in the inconsistent evidence-base, as discussed in the literature review.

However, because one of the key aims of this research has been to explicitly highlight some of these issues, these are not so much 'threats' but actually a justification for its approach (e.g. Pawson & Tilley, 1997). The goal was not to ensure homogenous groups or partial out extraneous factors, but rather to attempt to acknowledge and evaluate them. Moreover, in terms of generalisability, the ubiquity of major change during organisational research (Olsen et al., 2008; Sørensen, 2015) indicates that in some sense this setting could be considered more representative than one where no changes took place – or where their effects have been statistically stripped away (Pawson & Tilley, 1997). The question of generalisability is still valid and caution is warranted when attempting to extrapolate these findings from what is a single study. But this is largely true of any individual study,

particularly of processes that are lengthy and complex, so many studies are needed to reach conclusions of generalisability (Nielsen, Randall, et al., 2010).

The project followed a theory-based process (e.g. Cox, Griffiths, Barlow, et al., 2000; Kompier et al., 1998), and although the key process-related factors considered by this thesis were drawn from the literature, this is an emerging field and consensus on which variables should be prioritised has yet to be reached (Nielsen & Abildgaard, 2013). It was notable, therefore, that the issues that manifested themselves here were highlighted by the literature review and evident in many previous studies (Montano et al., 2014). Therefore, although there are many elements that are likely to be unique to PublicOrg and this project, this does suggest that the findings – and particularly the lessons – may be applicable to other work settings; particularly those undergoing large-scale change.

Nevertheless, in such a complex environment there are likely to be unknown factors that were not identified by the study. Moreover, even some of those factors that were known of could not be measured directly; for example, it was known that restructuring was ongoing, but details of exactly where and what this entailed was unavailable to the researcher; even where this was known and could be reported it was not necessarily possible to discern their effect (e.g. the restructuring event whereby 400 staff in one department transferred to an external organisation). The researcher was external to PublicOrg, and although able to document many aspects of the process was not privy to all that may have occurred internally.

Furthermore, information on the interventions themselves was provided by PublicOrg, but it was not possible to determine the extent to which they had been implemented across the organisation. Quantitative data from the T2 survey was able to confirm that the majority

of employees had experienced the interventions that had been open to all (ChangeComms and PDF; with the mental health awareness session initially targeted only at managers). However, because PDF was carried out by individual managers, it was not clear how widespread or how regularly these were held. ChangeComms sessions were held across different departments on a rolling basis, and information on how frequent these were was also not available to the researcher. Anecdotally, monthly sessions were indicated by one steering group member, but whether or how this varied across the organisation was not clear.

Despite the considerable challenges inherent in organisational-level intervention research, and inevitable limitations regarding the generalisability of the current study, there are strengths to the design and the conclusions that can be drawn from it. The quasi-experimental adapted study design, where participants were partitioned on the basis of their experience of the intervention components greatly strengthens its internal validity (Cook & Campbell, 1979, p. 128). The approach taken here followed that of Randall et al. (2005, p. 26) who propose it as "*a constructive use of the manipulation check [whereby] the study design is adapted to reflect actual exposure patterns*". Internal validity is further strengthened by the analyses showing exposure to/rating of interventions was associated with significant interactions restricted only to variables relevant to the interventions, and rules out 'Hawthorne'/halo effects (Holman et al., 2010; Nielsen & Abildgaard, 2013).

Baseline stress-risk assessment and Management Standards Indicator

Background and description of the process was provided in the 'screening' chapter, while this section summarises more general issues. Quantitative surveys are commonly used in intervention research and form a core element of the HSE's Management Standards approach in the form of the MSI questionnaire. However, there was some inconsistency in

the quantitative data it yielded, which posed a challenge to identifying particular issues for action and ambiguity regarding how data might be translated into actionable insight. For example, MSI subscale mean scores are not standardised and cannot be used to prioritise issues, while there are uncertainties and statistical concerns regarding other methods of analysis. Therefore, it was the qualitative data from T1 that seemed most useful – or at least, most accessible – to PublicOrg in identifying priority issues and guiding action, notwithstanding the lack of activity to address workloads. It should be recognised that the qualitative data may also be prone to issues, such as the potential for more dissatisfied employees to respond to open-text questions (e.g. Poncheri, Lindberg, Thompson, & Surface, 2008), but the comments were intended to be used more for identifying which issues were problematic to employees and in what way, as much as the scale of them. Furthermore, its overall accuracy cannot be objectively validated, but this is a limitation also shared with quantitative data and neither is that exclusive to this study. However, the number of comments for each issue was easier to interpret for the steering group than the quantitative data, providing a clearer basis for action compared to the quantitative analysis. This was in addition to the detail provided by the comments themselves, which allowed more in-depth exploration of what was meant by each category.

From that perspective, it would be easy to dismiss quantitative survey data as a tool in this context; however, it was at follow-up that the quantitative data suggested its value. In conjunction with the process evaluation measures, it enabled the identification of relationships between employees' exposure and perception of intervention components and subsequent changes in psychosocial work environment. Meanwhile, the potential for insight provided by even brief quantitative process evaluation measures (e.g. Hasson et al., 2014; Nielsen et al., 2007; Randall et al., 2005) was supported by the process evaluation

measures added to the T2 survey; for example, they showed the lack of employee awareness of the findings of the baseline survey. In conjunction with this, the qualitative data provided by respondents indicated why many staff had not seen these findings, which corroborated the researcher's observations based on steering group and informal meetings (i.e. the delays and poor promotion).

Although greater employee involvement in the process was desirable, the baseline assessment showed that the addition of open-text questions to the survey may provide insight into the specific nature of psychosocial stressors in a workplace, and assist in the interpretation of MSI results. For example, *manager support* appeared to be inconsequential based on multiple regression using the MSI subscales and GHQ-12 (β = -.03, p = .36), yet the number of comments made about managers (both positive and negative) strongly suggested it was a psychosocial factor that should be investigated further in the organisation. That is not to say that including open-text questions in a survey can replace focus/discussion groups, but does support their use as an expedient method where it is impractical to hold them. Furthermore, these can play a valuable role, such as enabling employees to expand on topics covered by the closed questions as well as raising new ones (O'Cathain & Thomas, 2004). Indeed, the additional detail provided by these questions could also provide the basis for even more fruitful focus group sessions, due to the added information the organisation would have to feedback and discuss with staff.

Turning more specifically to the MSI itself, at the beginning of the millennium there were calls to improve risk assessment instruments (e.g. Rick et al., 2001); a call heeded by the HSE (Cousins et al., 2004; Mackay et al., 2004). However, now there are measures such as the HSE's MSI that address many of the psychometric and conceptual concerns raised by researchers such as Rick et al. (2001), it is vital to ensure their practical utility. Cox et

al. (2009) pointed to the lack of published evidence regarding the efficacy of the MSI for the selection of interventions and in spite of numerous published studies on its psychometric properties, Cox and colleagues' point remains unanswered. The MSI was developed to help make stress-risk assessment more accessible to employers and is the result of an extensive and well-documented development process from a reputable source: the HSE. It is brief, easy to administer, and provides quantifiable information about stress-risks in an organisation, so it is therefore understandable that it is an attractive option for employers (Mellor et al., 2011). But does it actually do what it was designed for? The HSE themselves recognised the need for longitudinal research assessing its efficacy for prioritising interventions (Cousins et al., 2004); yet, to the best of the author's knowledge this is the first study that has used the MSI with the aim of guiding the selection of interventions and, on this basis, the MSI requires further work or guidance. This may mean modifying the questionnaire itself, and/or how the data is analysed and interpreted.

The fact that previous research using the MSI has consistently found almost identical rank ordering of stressors, based on mean scores, across diverse sectors and environments (e.g. Edwards & Webster, 2012; Guidi, Bagnara, & Fichera, 2012; Houdmont, Kerr, & Addley, 2012; Ravalier, McVicar, & Munn-Giddings, 2014) emphasises a lack of sensitivity to 'local' contexts. Given the importance of a risk assessment phase (e.g. Cox et al., 2000; Kompier et al., 1998; NICE, 2009) to identify the most salient stressors for each setting/organisation and help to tailor appropriate interventions, this lack of sensitivity appears to be a serious flaw. In essence, this means that if employers were planning to use the rank order of mean subscale scores to prioritise stress risks, they could effectively skip the administration of the MSI altogether without altering the substantive findings, because

it is almost certain their 'rankings' will show them that *change* and *demands* were the two lowest scoring ('poorest') psychosocial features of the work environment.

That said, it is important to acknowledge that the HSE do not specify that employers select the stress-risk priorities based on the rank order of mean scores, and the MSI user manual suggests that scores could be compared between areas/functions within an organisation to identify problematic areas, which the current study did not undertake due to the organisation-wide approach that was taken (and is recognised as a clear limitation of the present project). However, since the removal of the benchmarking facility from the HSE's spreadsheet-based analysis tool (discussed on page 134) – and in the absence of more specific guidance on how to interpret data – it could certainly appear a plausible strategy to a potentially naïve employer; because there is a lack of more specific guidance in the user manual about conducting such a comparison between departments, or what type of score or difference would constitute a 'problem'.

Of course, identifying definitive cut-off points at which a stressor (or a difference between departments) could be considered problematic is perhaps unrealistic, or inappropriate, given the complexity of psychosocial stressors and the lack of data to support such cut-offs (Mackay et al., 2004); not to mention the differences in job roles. Accordingly, the assessment of 'generic' stressors has been criticised as they may not apply across all roles, and consequently miss out on important contextual aspects of different work (e.g. Bakker & Demerouti, 2007). For example, lower levels of control are inherent to some occupations, such as call-centre operatives, compared to upper management (Vidal, 2013), in terms of being able to choose when to take a break, or how to go about their job (included in the MSI *control* subscale). Therefore, a large difference in *control* scores

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between departments/functions could indicate an issue, but that is far from certain and may just be a function of the differing roles.

Another important and related avenue to improve the utility of the MSI is to assess how to help employers to interpret their data. Research to support this would be of tremendous value. There is no clarity on this currently, and at this point the HSE's spreadsheet-based 'analysis tool' provides only descriptive statistics, which – as discussed in the 'screening' chapter – was inadequate. This may stem in part from the use of a frequency-based response format that does not capture the extent to which a particular stressor is problematic for an individual, and therefore fails to account for the transactional nature of the stress process (Cooper et al., 2001; Dewe, 2000, cited in Nielsen, 2003). Consequently, the MSI's frequency-based response format means it does not capture the extent to which the potential stress-risks are actually problematic for respondents; after all, the frequency of exposure to stressors tells us nothing about their intensity or impact so response formats taking the latter approach may therefore be better suited to capturing the potential 'harm'.

This only underscores Rick et al's (2001) caution that organisations should not assess only stressors and infer that these are equivalent to 'harm'. The present study added other measures to assess psychological health, perceived stress, and job satisfaction, among others, so it was able to assess both stressors and potential outcomes. However, employers using the MSI would have to locate appropriate outcome measures; this is likely to require both expertise in order to select appropriately, and possibly resources to purchase them. Therefore the development or selection of relevant outcome measure(s) to include as part of the MSI survey package should also be considered. This could have the added research-related benefit of allowing consistency and greater comparability between studies utilising

the MSI across different environments. Indeed this could facilitate potential benchmarking, and may therefore contribute to efforts for developing a tool/guidance to assist employers with analysing and interpreting their data.

On the basis that the frequency-based response format of the MSI remains as it is, whether outcome measures are developed for inclusion with the MSI or existing scales are required to supplement it, methods such as that proposed by Clarke and Cooper (2000; 2004) are worthy of further exploration and could make a valuable contribution to the risk assessment 'toolbox'. These consider the interaction between the perceived frequency of exposure *and* the association with potential harm in order to determine the overall risk. However, more research is needed to evaluate these.

A further limitation concerns the MSI subscales and items themselves, *manager support* covers positive management behaviours but the qualitative data showed both positive and negative aspects of management were prominent. It is appropriate to capture this in any risk assessment, and a similar point could be made regarding quantitative and qualitative demands, of which only the former is covered by the MSI. Furthermore, given the particular relevance of 'change' to the present study the brief three-item MSI *change* subscale may have been too narrow to capture its multifaceted nature and its management (Randall, Houdmont, Kerr, Wilson, & Addley, 2014). Nonetheless**,** the MSI was designed as a practical tool and its brevity was a key feature, perhaps limiting scope for the addition of new items; indeed researchers have attempted to improve its appeal to employers by *reducing* the number of questions in the existing version (Houdmont et al., 2013).

The MSI was designed for risk assessment purposes; however, to be a practical tool it cannot cover all potential stressors and was developed with extensive consultation, piloting

and refinement, so does represent the majority of the key stressors derived from an extensive evidence base. Furthermore, the recognition that surveys have limitations – as with any method – is why the HSE recommend the use of additional sources of information (e.g. Mellor et al., 2011). This is where speaking to staff and exploring further is important, as strongly advocated by the HSE: -

> "*It is important to appreciate that the results of the survey alone can only provide an indication of performance in managing work-related stress, and you will need to share and discuss the outcomes of the survey with employees, and explore any issues raised in more detail, for example using focus groups*" - MSI user manual (HSE, n.d.)

Being able to identify the key issues in a particular workplace is crucial and clearly has implications for developing subsequent interventions. However, the seven factors considered by the MSI have well-established links to a range of health and psychological well-being-related outcomes. Nonetheless, without at least some development or either the instrument, its response format, or a method of analysing and interpreting MSI data, it appears limited in its ability to help employers identify stress-risks.

Self-report & CMV

Self-report surveys are the most commonly used instrument in social science research (Bryman, 2006), and although they have limitations, steps were taken to address potential issues such as common method variance (CMV). It is recognised, however, that it was not possible to take all possible steps. For example, the process evaluation measures would ideally have been administered separately from the follow-up survey in order to eliminate CMV and this was the original intention; a brief survey including only the

process evaluation variables (e.g. intervention exposure, perceptions) was requested by the researcher to be administered separately, three months prior to the follow-up survey. Unfortunately, PublicOrg were unable to accommodate this. However, the process evaluation measures were included at the end of the follow-up survey, so questions asking about participation and rating of interventions could not have influenced participants' responses to questions about the preceding work characteristics/well-being questions (Podsakoff et al., 2003). Moreover, the post hoc Harman's (1976) single-factor test provided further support that CMV was not problematic in this case.

Effect size and measurement issues

The correspondence between the focus of the interventions and changes to variables they targeted is a particular strength, but the magnitude of effects from these analyses were 'small', based on Cohen's (1992) effect size rules of thumb (partial η^2 .01 to .05 = small; .06 to .13 = medium; > .14 = large). The largest effect size based on either exposure or rating of the initiatives was partial η^2 = .04. However, it has been suggested that organisation-wide preventative approaches such as those in the present study are theoretically less likely to obtain significant effects than those specifically targeting participants with strain-related issues (Brough & Biggs, 2015). In organisational-level studies the target population also contains individuals who are experiencing optimal, or at least acceptable, levels of well-being and so have less scope for improvement (Biggs, 2011). Similarly, Randall and colleagues (2009) also suggest that small effects in this type of research should be expected, reflecting the complexity of the setting. It is therefore encouraging that any statistical effects were detected, in light of the project and methodological challenges. It is particularly encouraging that these were linked to psychosocial features that related to the interventions, which provides support for their

potential effects, but given those methodological challenges and the research design caution is warranted in proclaiming with any certainty that it was the interventions that were responsible for these. Litschge, Vaughn, and McCrea (2010) further advance that small effects may still be of particular value where they affect large numbers, and are relatively inexpensive and easy to implement; PublicOrg's intervention activity would fit those criteria.

More generally, Paterson, Harms, Steel, and Credé's (2016) meta-analysis of effect sizes (in the field of organisational behaviour and human resources) found the large majority of study findings would be categorised as 'small' effects. It is likely this reflects both the methodological challenges of organisational-level research as well as the nature of what is being studied. Sue-Chan, Wood, and Latham (2012) defend the practical and theoretical significance small effect sizes, suggesting that – quite apart from the *very* small effect sizes that may be considered important in medicine – they may still contribute to 'scientific' progress in the behavioural sciences. From that perspective, these small effects can contribute, with quantitative analyses suggesting that interventions did have an effect, and particularly on outcomes that they were aimed at addressing.

Similarly, Biggs et al. (2014) also found small significant effect sizes ($r^2 = .01$) for employee outcomes (e.g. work culture support, work engagement, & job satisfaction) in their manager-focused intervention. It could be argued that effects such as these are below practical significance, but they are still worth noting and add to our understanding of where and how they work, as well as supporting the assertion that improving interventions based on lessons learnt would yield larger, more meaningful effects. For example, using a design/analysis similar to the present one, Randall et al. (2005) found partial η^2 of .16 and .17 (i.e. large effects) in their two intervention studies. These were based on changes

introduced within small work units (n = 37 and n = 31), so could reflect the fact that these were localised solutions meeting specific needs of those units, in comparison with the more general organisational-level solutions covered here.

Scope and depth of the evaluation

If larger 'effects' could be expected with more successful implementation, then more sensitive quantitative measures of process and potential intervention effects could improve things from a methodological perspective. This study has discussed the importance of implementation and provided in-depth commentary and discussion of implementation of the project as a whole. The quantitative process evaluation measures allowed some determination of the effects of exposure to and perception of interventions, which are informative, but the measures used here are naturally limited in their scope as they had to be brief. This section considers some additional methodological factors and limitations regarding the evaluation measures, as well as some of the gaps in what could be assessed by the present study and how this might be addressed in future research.

The literature discussed previously suggested a plausible theoretical explanation for the lack of relationship between employee rating of ChangeComms and changes to targeted variables; i.e. Randall et al's, (2005), distinction between active and passive interventions. However, there is an alternative methodological explanation; Cooper et al. (2001) pose the question as to whether measures are actually measuring what they purport to, and this reflects a limitation of the survey question asking for employees rating of ChangeComms. The unpalatable news ChangeComms was charged with delivering means that employee ratings could have related to the *content* it had to share as much as the concept or its delivery. Respondents could therefore interpret their 'rating' differently, which is a potential source of measurement error (Krosnick & Presser, 2010). The distinction is

relevant because the intervention was the delivery method, not the content. Nonetheless, the results do suggest it conferred some benefit, which in essence was the aim – i.e. that people who took part would benefit.

A further measurement-related point concerns the extent of employees' exposure to interventions. The quantitative process evaluation measures in this study assessed exposure to and rating of interventions, but not the *amount* of the intervention they received: i.e. the dose (Murta et al., 2007). Consequently, employees could have indicated exposure to PDF, for example, on the basis of a single PDF supervision session, or many. In other words, the measure of exposure did not capture a potentially relevant element. It is possible that rating may capture some of that, from the point of view that inadequate exposure might be rated negatively, but of course that still leaves open the possibility that some employees who had poor perceptions of it also had several PDF sessions. Therefore, the dichotomous measure of exposure used here and in other studies (e.g. Randall et al., 2005) could be considered a conservative measure, being less sensitive than one that had assessed extent of exposure to interventions (Biron, Ivers, & Brun, 2016).

Accordingly, it is recognised that implementation efficacy cannot be captured by only assessing whether or not employees were exposed to an intervention, or how they rated it. Nonetheless, based on the literature, these are still two important components. Brief measures such as these have been utilised previously (e.g. Biron et al., 2016; Hasson et al., 2014; Randall et al., 2005) and supported as expedient approaches to determining the effect of both exposure (Nielsen & Randall, 2013), and perceptions (Hasson et al, 2014), particularly across large groups (Randall et al., 2009). However, integrating more comprehensive quantitative measures of employees' experience of interventions such as those proposed by Randall et al. (2009) might have provided a more detailed picture of the

elements that contributed to their overall perceptions. Randall et al's scale covers topics such as the amount and type of information they received, opportunities for involvement, the role of line managers, and readiness for change, all of which would have been relevant and of great interest here. Qualitative survey data and notes collected throughout the project provided some indications of how effective these elements were but did not allow more detailed quantitative analysis of their effects.

It should, however, be remembered that brevity was a necessity here so although it is appropriate to identify alternatives or additional measures that would have been informative, it was unlikely to be feasible. Nonetheless, what the quantitative data does indicate is that (a) not everyone was exposed to intervention activities, (b) exposure to interventions and perceptions of them were relevant and associated with differential effects, and (c) that those with poorer perceptions of the psychosocial environment were less likely to access interventions or perceive them positively.

There were a number of factors not accounted for in the present study that could conceivably have influenced well-being; life events, lifestyle (e.g. smoking, diet and alcohol intake) or personality, for example, are acknowledged but omitted from the study as they were not a primary focus of the research, and to ensure the questionnaire was not too burdensome for participants. A further reason for their non-inclusion regarded concerns about how employees might perceive such items in a survey supported by their employer. However, there were some potentially influential factors that were more strongly related to the focus of the research, whose absence or limited coverage could be considered more relevant.

The documentation of organisational changes is a particular example. The budget cuts faced by *PublicOrg* formed a challenging backdrop to the intervention and research, and it was almost inevitable that this would have an effect on the organisation and their employees. Research frequently highlights organisational changes as a confounding factor in the delivery and efficacy of organisational-level interventions (e.g. Olsen et al., 2008) and the need to attend to such information before and during the process (e.g. Biron et al., 2012a; Karanika-Murray & Biron, 2015; Nielsen & Abildgaard, 2013). Unlike many previous studies, where it appears major organisational changes came as a surprise to researchers (e.g. Petterson & Arnetz, 1998), it was known beforehand here that changes were likely. Yet even armed with this knowledge these proved to be numerous and were potentially sensitive so it was not possible to systematically explore or document them within PublicOrg, or to consider how these specifically affected the process or outcomes. Therefore, the study can only indicate there was a general backdrop of upheaval and change, which was clearly indicated by steering group members, and that also came through from employee comments.

Alternatively, the inclusion of survey measures to account for the type and number of work-related changes respondents were actually exposed could have helped to account for their effect (e.g. Loretto et al., 2010). Bamberger and colleagues' (2012) findings suggest such a measure of organisational changes might not be necessary; their systematic review into the effects of organisational changes on employee mental health and well-being found the effects of organisational change were not conclusive. Nonetheless, there are numerous examples in the literature to suggest organisational changes can affect the implementation of organisational level interventions (e.g. Aust et al., 2010; Olsen et al., 2008), as well as the psychosocial environment (Smollan, 2015).

Despite communication by the organisation being an important issue during this process, it was not explicitly measured at T1; it was anticipated as a potentially relevant factor from the literature review, but not to the extent it ultimately was. Due to the need to balance survey length and coverage (Hinkin, 1995), the PSC scale – selected due to its role as a potential indicator of intervention effects – was considered sufficient. The full 12-item PSC scale (Dollard & Bakker, 2010) includes specific reference to communication, but the four-item version used here does not; however, Dollard and Bakker (2010) propose (of the aspects covered by the four-item scale), that '*together, these principles embody management commitment, communication, involvement, and participation*'. In fact, even the follow-up survey references to communication were limited, in hindsight. Again, there were practical reasons related to survey length, so measures that asked about awareness of survey feedback, and exposure to interventions were used as a gauge of awareness.

Notwithstanding the earlier concerns about the feasibility of fitting more measures into the survey, future research would ideally use broader, multifaceted scales (e.g. Randall et al., 2009; Wanberg & Banas, 2000) that explicitly ask about the timeliness, adequacy, and usefulness of project-related communication. However, because the interventions themselves were to be predicated on the baseline survey, it provided an additional challenge to pre-emptively select the most relevant measures to assess the effects of hitherto unknown interventions. Parkes and Sparkes (1998, p. 26) recognise that "*choosing the most appropriate measures to assess effects of the change process at the start of the study may not be possible*". The literature provided guidance, but circumstances and practicalities meant that compromises were necessary. An additional practical barrier regarding the line manager-directed component – mental health awareness sessions – was not being able to match employees' surveys to those of their line manager in order to

facilitate subgroup analyses and determine whether attendance did benefit their subordinates' willingness to discuss stress and mental health issues with them.

The lack of focus groups has been raised from a risk assessment perspective but, from a research perspective, this was also a limitation. In common with Aust et al. (2010), the process evaluation was founded predominantly on the survey data, researcher observations, organisational documents, and meeting notes. Consequently, this has to be understood as a limitation when seeking to understand employee perceptions of interventions and the process in general. Nielsen and Randall (2013) recognise that in-depth qualitative approaches utilising focus groups or interviews can be resource intensive, for researcher and organisation alike, and the inclusion of process measures with quantitative surveys can provide insight into intervention progress. Open-text survey questions allowed elaboration and provided some valuable insights into the baseline issues as well as the process itself, but did not enable the researcher to probe into emerging issues or questions (Hayhow & Stewart, 2006). For example, the absence of comments referencing PDF or ChangeComms in response to the T2 question about PublicOrg's actions since the previous survey would have been particularly useful to address.

At T2, the survey asked an open-text question asking for any comments about the survey findings and actions taken by PublicOrg since that survey. The researcher's decision to ask a single overall question about survey findings and actions was taken to minimise the burden on respondents (although a question to assess the mental health awareness session was also added to provide PublicOrg with feedback about these sessions). This is a limitation when seeking to evaluate employees' views of the individual interventions, so a question for each of them would have been beneficial. Those comments that were

provided predominantly focused on the (delayed) survey findings, with very few comments about the specific actions themselves.

This thesis has endeavoured to look into the 'black box' of interventions, and some elements were better illuminated than others. Some information and documentation about the translation of baseline assessment findings into actions was obtained by the researcher, but because much of this took place internally, away from steering group meetings, the decision-making process itself was obscured from the researcher's view. Baril-Gingras et al. (2012) note limitations of this element in the literature, and it illustrated the ongoing challenge to the researcher of obtaining information about the project and its implementation. However, clear links could be made between the baseline assessment and the selected interventions; excerpts from the survey report could be seen in PublicOrg's long-term organisational well-being strategy document. Nonetheless, knowledge of why one intervention was selected in preference to another intervention was relatively limited. Indeed, it is not clear if there were other options considered by PublicOrg. In some studies it is the researcher who determines and/or implements interventions (e.g. Biggs et al., 2014), but in this case – which perhaps more closely represents the way things are done by employers – it was PublicOrg who were responsible for planning and implementation. Consequently, these elements were not as clear to the researcher. This does not undermine other aspects of the research, but does acknowledge a limitation and brings into focus one of the challenges of this type of research.

In relation to these other sources of information used in the process evaluation, Johns (2006) acknowledges that the documentation of organisational events and contextual factors can be subjective and may not be amenable to precise measurement, but argues there are bigger downsides to omitting it. Such detail is seldom integrated within the

evaluation (Bambra et al., 2007), something that this thesis has endeavoured to address. So, there are limitations to the collection and reporting of this contextual information, but it is important to do so and without this detail, researchers and practitioners may be deprived of information that can be used to interpret findings (Johns, 2006).

Despite the frequent omission of detailed process evaluation, the literature has identified several recurring factors influential in the outcome of organisational intervention programmes. This is still relatively young field (Nielsen & Abildgaard, 2013), at least regarding organisational interventions, so there is more work to be done in confirming exactly which factors are most important, and under what circumstances. Nonetheless, there is clearly a good awareness now of many influential factors, and future research could also begin to incorporate theory testing, alongside the necessary theory building in relation to process and contextual factors' influence on organisational interventions. Therefore, Durand, Decker, and Kirkman's (2014) suggestion that process evaluation research should begin to look beyond post hoc or even concurrent evaluation methods is an interesting one. They suggest *prospectively* estimating the likelihood of 'failure' using existing knowledge of barriers and pre-programme assessments of them to predict their likely effects. Moreover, knowing about some of the potential pitfalls and addressing them in advance, if possible, would provide a more important benefit; that of being able to identify salient barriers early on in the process and putting plans in place to minimise them (Durand et al., 2014).

Research timescale

It was beyond the scope of this project to include more than a single follow-up, but is certainly something that future research should aim for. On the one hand, it is still unclear when interventions can be expected to begin to show effects on distal outcomes, such as

health and well-being (Parkes & Sparkes, 1998), although research does suggest it would take a longer period than that allowed here (Taris & Kompier, 2014). In line with theory and previous research, it was considered realistic to expect any changes to first manifest themselves in proximal outcomes targeted by the interventions. This was supported by the quantitative analyses, with effects tending to occur in proximal measures; particularly those that were targeted by interventions. However, there were some signs that intervention activity had begun to affect downstream outcomes such as *job satisfaction* and JRWB, although this is tentative. Therefore, it is also important to examine if and how such effects are sustained (LaMontagne et al., 2007), while Bourbonnais et al. (2006) and Bourbonnais et al. (2011) show that further changes to distal outcomes could be anticipated in the longer-term – with the caveat that process and implementation of interventions are conducted effectively.

An additional disadvantage from the use of a single follow-up is that interventions may be seen as one-off efforts: successes, or failures (e.g. Biron et al., 2010). Yet evaluation should be cautious about proclaiming success or failure of a project, but should instead prioritise drawing lessons to inform the next cycle. Therefore, as an epilogue to the present project it was notable that PublicOrg did heed many of the issues reported here (the researcher presented the steering group with an executive report following the baseline and follow-up surveys) and they have made amendments to the next stage as a result (for example, the T2 survey findings were released to staff four months after the close of that survey, but they also released some smaller bulletins in the interim period providing employees with some brief 'headline' findings). This in itself is a positive outcome but collecting further rounds of data would enable the effects of any learning to manifest itself. Perhaps most tellingly, the steering group itself – set up to coordinate activity around the

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research project – was to continue beyond the end of the research period. This type of learning is important for intervention success, yet although the need for ongoing learning and adapting has been advocated more generally (e.g. Argyris, 2008) application of this in the intervention research literature is difficult to find. So although PublicOrg's efforts to act on some of the lessons learned is encouraging, research that can provide evidence of applying knowledge gained from earlier cycles of a project to improve would be of great value. The organisational intervention process evaluation literature is predicated on learning lessons, so there is a real gap to be filled in terms of utilising this in practice. This is challenging in itself; the researcher was aware of the literature and the barriers to intervention 'success' from early on in the process, yet still they affected the process.

The role of the researcher

From both a process evaluation standpoint and methodological one, it is relevant to consider the role of the consultant (or researcher) in this process (Diemert Moch & Gates, 2000; Nielsen & Randall, 2013). One difficulty, demonstrated throughout, is that the researcher was external to the organisation and so relied on PublicOrg to act and follow-up on agreed actions. It also meant that the level of information available to detail all stages of the process was sometimes limited, as recognised previously, although this was not a limitation unique to this study (Baril-Gingras et al., 2012). In fact, Biron et al. (2016) note this same issue in organisational interventions, as researchers in their study also noted a lack of control and information regarding what was implemented. However, they also confirm the value in assessing the 'active' ingredients such as intervention exposure, in lending confidence to conclusions

This presented methodological challenges, but from a project perspective Dahl-Jørgensen and Saksvik (2005) indicate this could be to its advantage in the long-term. Interventions

driven wholly externally can leave stakeholders uninvolved and jeopardise future progress once the 'consultant's' involvement is over, and this intervention was set to continue beyond the research period. Despite challenges presented by the researcher's external status, the non-involvement in the selection and implementation of interventions themselves is a strength, from an evaluation perspective; i.e. Parkes and Sparkes (1998) highlight the challenge of researchers essentially 'evaluating' their own work and the difficulty of remaining 'neutral'. However, there are two related points that should be reflected on when interpreting the findings here.

Firstly, although not involved with planning and implementation of interventions, the researcher was responsible for the baseline assessment that informed that process. It was specifically for this reason that some of the issues and decisions in how the analysis was conducted were made explicit in the baseline assessment chapter. There was no other objective assessment of exactly how accurate the baseline findings were, but employee feedback from the follow-up survey in particular tended to suggest they were at least a fair representation. This cannot be considered as 'validation' of the baseline assessment, but does provide independent evidence to support it. At the time of this stage the researcher was new to the practicalities of stress-risk assessment and encountered the unanticipated challenges associated with the analysis and interpretation of the MSI data. However, this means the researcher was well-placed to view things from the perspective of an employer attempting to use the MSI for the task.

The second point is that the researcher cannot claim to be unaffected by involvement in the process, which may influence interpretation of the evidence gathered (Diemert Moch & Gates, 2000). Because of the time-window available to conduct the research there was pressure to ensure the research element of the project (i.e. principally the surveys) was

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completed within the allotted timescale. Therefore, the researcher was required to take a more active role in prompting for action than might otherwise have been the case if acting in a solely observational/evaluative capacity. I.e. the numerous instances prior to the baseline survey where the researcher had to repeatedly (and often unsuccessfully) contact two particular steering group members to obtain information or press for actions that had been promised weeks or months earlier. This was frustrating and made communication and lack of follow-up a particularly salient issue for the researcher from an early stage; because these issues are also reflected strongly throughout the findings, it is important to recognise the possibility that the researcher's own experiences may have affected the interpretation of events and the qualitative data. For example, because of these communication-related issues experienced by the researcher it was possible that some ambiguous comments could have been interpreted as communication-related simply because that difficulty was particularly salient. This cannot be entirely ruled out, but a selection of the qualitative data was shared with an experienced organisational psychology academic not involved in the data collection or analysis for cross-checking and no issues were identified. Furthermore, regarding the interpretation of the events that occurred during the project, there are many objective illustrations of where communication was problematic (e.g. promotion of the survey not occurring as planned, long delay sharing survey results with staff), as well as it being raised separately by other steering group members. The researcher's understanding and interpretation of events and meetings were also checked with at least one steering group member.

Conclusion

The initiatives introduced by the organisation did demonstrate some positive impact on relevant psychosocial conditions where these interventions were accessed. This would

appear to underline the potential for organisational interventions to influence the psychosocial environment, even in challenging times. Key to this is the commitment of all organisational stakeholders to the process of communication, whether of issues linked to the mental health of the workforce or of interventions designed to support their well-being. Such findings are of considerable practical relevance to organisations and those seeking to conduct research into the efficacy of organisation-wide psychological interventions.

One year is still relatively early in a long-term preventative stress-management strategy (e.g. Kompier et al., 1998; Taris & Kompier, 2014) so it is also important to recognise that the full benefits were unlikely to occur over this time period. Some actions were likely to take time to have effects and future evaluation of the actions/outcomes are more likely to see positive changes as the strategy develops (e.g. Bourbonnais et al., 2011), based on feedback and learning from this first 'cycle'. A recent CIPD report (2016) found that only 8% of organisations surveyed had a standalone well-being strategy feeding directly into wider organisational strategies; this was something that PublicOrg developed as a result of the present project and can be regarded as a positive outcome at the organisational-level, in line with NICE's (2009a; 2015) recommendation for organisations to take a strategic, organisation-wide approach addressing the mental well-being of employees.   This, alongside the work PublicOrg were undertaking to improve the process since the formal close of the research period, suggests evidence of wider changes which bode well for their future efforts.

In a large organisation there is no 'one-size-fits-all' for encouraging effective employee involvement: individuals are likely to differ in both the level of participation they actually desire (e.g. Nielsen et al., 2006), as well as the methods/avenues of involvement they

would respond to. For some staff, workloads may also be a factor – they may want to contribute, but some employees indicated it was difficult to take time away from their duties. It may be that different approaches/options are necessary to account for these factors. There were better outcomes reported for employees who reported experiencing the two organisation-wide interventions (PDF & ChangeComms), or who rated them positively, compared to those who did not. Improving awareness of initiatives and progress may be helpful, although it is probably simplistic to suggest that doing this by itself would improve perceptions of all staff because there may be other factors involved, e.g. cynicism about new initiatives.

In conclusion, this research aimed to assess the efficacy of a preventative, organisational-level programme to improve psychosocial conditions in a large public sector organisation, at a particularly turbulent time in the history of the UK public sector. Therefore the study firstly responds to repeated calls for more intervention research (e.g. Bhui et al., 2012; Cooper, 2012). But it goes beyond that by evaluating not only the outcomes, but also how context and process contributed to them. Awareness and consideration of process factors in organisational research has grown (Biron et al., 2012a; Karanika-Murray & Biron, 2015). From earlier calls to assess what was actually implemented and how (e.g. Murta et al., 2007), there is now a need to go beyond this and uncover the mechanisms by which changes occur (Biron & Karanika-Murray, 2014). Outcome-focused research has provided a mixed evidence-base without the means to pinpoint the sources of inconsistency in the findings, as would have been the case here had the study considered only pre- and post-intervention comparisons as a measure of intervention efficacy. These do not answer the question of whether flaws lie with the rationale for preventative organisational approaches or flawed intervention, or crucially, *where* these flaws might lie. Acknowledging some of

these elements is critical, because without them very different conclusions may be drawn (e.g. Nielsen et al., 2007; Randall et al., 2005).

Process evaluation cannot somehow turn a 'failure' into a 'success', but it does show that understanding of intervention success is more complex than a single statistic. The factors incorporated into the evaluation of this project were drawn from previous organisational-intervention studies and contemporary process evaluation research (Biron et al., 2010; Nielsen & Abildgaard, 2013; Nielsen & Randall, 2013). The thesis has attempted to address the lack of systematic consideration of process and context in intervention research (e.g. Biron & Karanika-Murray, 2014; Havermans et al., 2016; Murta et al., 2007; Nielsen & Randall, 2013) by applying a framework designed specifically to guide evaluation (e.g. Nielsen & Abildgaard, 2013). It is the first study to formally utilise it in an organisational intervention study of this scale, so it is therefore salient to note the very recent recommendation from Havermans et al. (2016) to utilise theoretical process evaluation frameworks when conducting intervention research of this kind. Although Fridrich et al. (2015) suggest that the framework used by the present study may be too broad, it is appropriate given the (im)maturity of the field of process evaluation in organisational interventions. The research has also aimed to provide *some* precision about where and how the process did not work as intended and therefore where remedial action might be directed in future; for example, communication has been highlighted as a relevant factor in interventions (Nielsen & Randall, 2009), but this evaluation suggests that it was pivotal in this context.

The thesis also provides both practitioners and researchers with lessons and understanding to apply to future organisational-intervention work (see summary overleaf). Furthermore, the intervention process was founded on the HSE's MSI questionnaire – the result of an

extensive research and development process, designed to be an accessible tool for employers to assist with the assessment of psychosocial stress risks for their workforce. It has been over a decade since its development, yet to the best of the author's knowledge published research applying it to its intended purpose, and with a follow-up, is non-existent.

Summary of lessons and recommendations

For practice

o Coordination and follow-up: ensure there is someone on the steering group (or decision-making committee) with explicit responsibility for ongoing monitoring of progress of agreed project actions.

o Poor communication of the baseline assessment limited awareness and survey participation, but also subsequently affected employees' awareness of what had been done as a result. Therefore: -

- Ensure effective communication of 'risk assessment' activities, using multiple organisational channels, and involving line managers in their promotion. From the outset of the project, provide employees at all levels with information about the proposed project, its rationale, scope, and *realistic* expectations.

- Given employees' comments about the process, it is recommended to prioritise identifying feasible ways of involving staff in the development and selection of interventions.

- Staff need to feel that any employee consultation or participation is meaningful; where input is invited, ensure these are followed-up and fed-back in a timely fashion, even (or especially) when it is not possible to implement them.

- Additionally, even the most well-founded initiatives may not be received as positively as intended if employees cannot see the links between their suggestions and subsequent actions, and so may be viewed by staff as too 'top-down'. Intervention activity needs to not only be linked to baseline findings, but clearly communicated as such.

- A risk assessment should be based on more than a single questionnaire, be it the MSI or any other. It is important to heed the HSE's own advice to use other sources of data, particularly corroborating this by speaking to employees. This is recommended from a risk assessment perspective, but can also play a part in promoting awareness and involvement in the intervention process.
- Supplementing a questionnaire such as the MSI with open-text questions may be an expedient method of gaining insight into quantitative survey findings, where it is not feasible to hold focus groups or similar.
- Consider analysis at the team/departmental level in order to facilitate more tailored localised solutions.

For policy
- Preventative, organisational-level approaches to stress-management have been highlighted as a priority, but they are likely to be complex in comparison with secondary and tertiary approaches. It is therefore important to ensure the evidence coming through from the emergent process evaluation literature is translated into accessible and practical advice for employers.
- From a policy perspective, there is a need to consider the MSI, what it contributes, and how the data can be analysed to provide actionable insights. Therefore the development or selection of relevant outcome measure(s) to include as part of the MSI survey package should also be considered, and may have the added research-related benefit of allowing comparison between different environments using the same outcome measures with the MSI

For theory and future research
- This research confirms the necessity of go beyond asking 'did it work?' and to consider process evaluation, as well as the importance of context, which had implications for the time and resources available for the project.
- Frameworks, such as Nielsen and Abildgaard's (2013) provide a useful way of guiding process evaluation, and particularly in focusing attention on where in the process issues have arisen, enabling the field to build knowledge of not only what, but *where* particular hurdles may be encountered.

- o The phases of Nielsen and Abildgaard's framework are linked sequentially, but because earlier phases have implications for later ones, they could be viewed as successive layers upon which the others are built.
- o The potential relationship between negative experience of previous change initiatives (i.e. CAOC) on employees' 'uptake' and perception of interventions was suggested by the present research. However, this is tentative and future research considering this more explicitly would be of value in understanding its effects and, crucially, what may be done to mitigate it.
- o Evidence of applying lessons learned from a process evaluation to address the issues it identified and improve the process is exceptionally rare. Studies that continued beyond the first 'cycle' of the process and assessed the effects of any learning from it would be of enormous value.

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Finally, while it is appropriate to focus on elements of the process and workplace that may be improved, the project took place amidst a challenging context of ongoing change and uncertainty. The latter had naturally brought about particular pressures on both the organisation and staff; wider research evidence suggests that – at best – these are unlikely to be beneficial for working conditions or psychological health (e.g. Kiefer et al., 2015; Smollan, 2015). So although there were clearly still issues to be addressed, it is relevant to acknowledge the context when interpreting the findings; for example, that awareness of ChangeComms was only associated with maintaining – rather than improving on – employee perceptions of how change was managed (i.e. *change* subscale of the MSI). This suggests that some of the actions did seem to make a difference to some groups of staff and offers some cause for optimism that if actions can be developed to focus more closely on these issues, and are more clearly communicated as such, they could make a difference to employees' experiences of work and therefore, ultimately, their well-being.

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APPENDICES

Appendix A: PublicOrg staff survey

All employees at PublicOrg are invited to take part in a stress and well-being at work survey. This is a follow-up to last year's survey being delivered by researchers from the University of Salford, as part of research into employee well-being being carried out by the university. It focuses on your general experience and opinions about different aspects of work, as well as your views on some of the actions taken in response to last year's survey. There are also questions about your overall well-being and feelings about work. Most of the questions are quite general so there is also a chance for you to give some written comments, if you want to.

It is important to make it clear that **your individual responses to this survey are confidential and cannot be traced to you**. We want you to feel safe and comfortable providing honest answers to these questions, and further information on the survey and what will happen to your responses is provided below.

The questionnaire will take about 15-25 minutes and PublicOrg have given permission for this to be completed during working hours. Your time and effort completing the survey is really appreciated and helps give us a better understanding of the key issues.

What and why?
There has been a great deal of change at PublicOrg over the last few years, which has been extremely challenging for staff at all levels. Although much of this is outside our control, we want to support the well-being of our employees as well as we can. A survey cannot do everything but last year's helped us to get a better understanding of the key issues, although this was only the first step. Action plans were developed following the 2014 survey and some of these actions have started to be implemented, but this is a long-term process and more will be done

What will happen to the results?
Survey responses will be combined and summarised by the researchers at the University of Salford. These results will then be communicated to staff, and used to help PublicOrg identify which aspects of the workplace to focus on over the next year. We can't make any big promises about what will happen, but we don't want staff well-being to be a 'one-off' and this is part of a long-term effort.

Confidentiality and anonymity
Key points:
- The survey is run by University of Salford - we will not ask for any information that could be used to personally identify you and your responses will be treated in the utmost confidence.
- **Your employer <u>will not</u> have access to any individual questionnaires** and they will only be shown the overall results.
- Your participation is voluntary and your choice to participate will not affect your employment in any way, neither will any of your answers. You are also free to withdraw from the study at any point. Should you wish to withdraw from the study, please contact the researchers.

Many thanks,
Principal researcher: John Hudson (e-mail: j.h.hudson@edu.salford.ac.uk)
Research supervisor: Dr Ashley Weinberg (e-mail: a.weinberg@salford.ac.uk)

Approval for this project has been granted by the ethics committee for the College of Health and Social Care at the University of Salford (ethical approval reference: HSCR13-19)

Section 1: Protecting your anonymity

This survey does not ask any information that can be used to identify you personally: the responses you provide on the survey go only to the researchers at the University of Salford. This data will then be combined with all other responses and summarised for [organisation], to help them to identify the areas of staff well-being that need to be prioritised.

Because this is part of a longer-term effort to improve the well-being of employees, this survey will be repeated over the next year to assess progress. To do this, the researchers need to link the responses from this survey to the responses on the next one; but we want to do this without asking you for any personally identifiable information, like names or full dates of birth, so you can be sure that your responses are completely anonymous. We want you to feel comfortable answering the questions on this survey honestly, without having to worry whether your answers can be identified. So, your answers to the next two questions will be combined by the researchers to form a unique code which ensures that your responses to this questionnaire and the follow up survey next year can be linked, but **without** identifying you individually.

Therefore, please provide the following information…

Question column (*answer these questions by filling in the blanks in the answer column on the right*)	Answer column
What day of the month is your birthday? (For example 1st, 2nd, 30th). *Please <u>do not</u> write the month or year.*	_ _ /MM/YY
What are the first three letters of your mother's <u>first</u> name?	_ _ _

Section 1: Basic information about you and your job

Question column (*circle/write your answers to the questions in the answer column on the right*)	Answer column	
1. **What is your age?**	_____ years old	
2. **Gender**?	**Female**	**Male**
3. **Roughly, how long have you been employed by [organisation]?**	__ years**,** __ months	
4. **On average, how many hours do you usually work per week**?	_____ hours per week	
5. **Are you responsible for managing any staff?**	**Yes**	**No** (if no, *go straight to question 7*)
6. (*If you answered 'Yes' to the last question*) **Do any staff you manage also have management responsibilities?**	**Yes**	**No**

7. **Which directorate and service/team to you work in?** (*Just circle the department below*)					
Social care	Business	Environment	Community	Buildings	Health

During this survey, if you change your mind about any answers, please put a cross over your original answer and circle the new one.

You and your workplace

The questions on this page ask about your general feelings about your job, and working here.
***There are no right or wrong answers**, just answer as honestly as possible.*

In general, how do you find your job?	Not at all stressful	Mildly stressful	Moderately stressful	Very stressful	Extremely stressful

Please answer the above question by circling the option that most applies to you:

For each of the statements below, please circle the answer that applies to you…

All in all, I am satisfied with my job	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
In general, I do not like my job	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
In general, I like working here	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I feel that my job is secure here	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I worry about my job security	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

Working conditions

The next two sections are about you and your working conditions.

For each of the statements below, please circle the answer that most applies to you, **based on the last 6 months**.

I am clear what is expected of me at work	Never	Seldom	Sometimes	Often	Always
I can decide when to take a break	Never	Seldom	Sometimes	Often	Always
Different groups at work demand things from me that are hard to combine	Never	Seldom	Sometimes	Often	Always
I know how to go about getting my job done	Never	Seldom	Sometimes	Often	Always
I am subject to personal harassment in the form of unkind words or behaviour	Never	Seldom	Sometimes	Often	Always
I have unachievable deadlines	Never	Seldom	Sometimes	Often	Always
If work gets difficult, my colleagues will help me	Never	Seldom	Sometimes	Often	Always
I am given supportive feedback on the work I do	Never	Seldom	Sometimes	Often	Always
I have to work very intensively	Never	Seldom	Sometimes	Often	Always
I have a say in my own work speed	Never	Seldom	Sometimes	Often	Always
I am clear what my duties and responsibilities are	Never	Seldom	Sometimes	Often	Always
I have to neglect some tasks because I have too much to do	Never	Seldom	Sometimes	Often	Always
I am clear about the goals and objectives for my department	Never	Seldom	Sometimes	Often	Always
There is friction or anger between colleagues	Never	Seldom	Sometimes	Often	Always
I have a choice in deciding how I do my work	Never	Seldom	Sometimes	Often	Always
I am unable to take sufficient breaks	Never	Seldom	Sometimes	Often	Always
I understand how my work fits into the overall aim of the organisation	Never	Seldom	Sometimes	Often	Always
I am pressured to work long hours	Never	Seldom	Sometimes	Often	Always
I have a choice in deciding what I do at work	Never	Seldom	Sometimes	Often	Always
I have to work very fast	Never	Seldom	Sometimes	Often	Always
I am subject to bullying at work	Never	Seldom	Sometimes	Often	Always
I have unrealistic time pressures	Never	Seldom	Sometimes	Often	Always
I can rely on my line manager to help me out with a work problem	Never	Seldom	Sometimes	Often	Always

For each of the statements below, please circle the answer that most applies to you, **based on the last 6 months.**

I get help and support I need from colleagues	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I have some say over the way I work	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I have sufficient opportunities to question managers about change at work	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I receive the respect at work I deserve from my colleagues	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Staff are always consulted about change at work	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I can talk to my line manager about something that has upset or annoyed me about work	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My working time can be flexible	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My colleagues are willing to listen to my work-related problems	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
When changes are made at work, I am clear how they will work out in practice	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am supported through emotionally demanding work	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Relationships at work are strained	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My line manager encourages me at work	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

Support and recognition

This section asks about your general feelings about the support and recognition your receive at work

Please read the statements below and circle the option that most applies to you for each one...

Senior management show support for stress prevention through involvement and commitment	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Participation and consultation in work health and safety issues happens with employees and unions.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
In practice, the prevention of stress involves employees at all levels of the organisation	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My contributions in solving work health and safety concerns in the organisation are listened to.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

Please read the statements below and circle the option that most applies to you for each one...

My employer values my contribution	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My employer fails to appreciate any extra effort from me	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My employer would ignore any complaint from me	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My employer really cares about my well-being.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Even if I did the best job possible, my employer would fail to notice	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My employer cares about my general satisfaction at work	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My employer shows very little concern for me	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

- **Thinking of the <u>past month</u>, how much of the time has <u>your job</u> made you feel each of the following…** *(circle the answer that applies to you, for* ***all*** *of the 12 words below)*

1. Tense	Never	Occasionally	Some of the time	Most of the time	All of the time
2. Miserable	Never	Occasionally	Some of the time	Most of the time	All of the time
3. Depressed	Never	Occasionally	Some of the time	Most of the time	All of the time
4. Optimistic	Never	Occasionally	Some of the time	Most of the time	All of the time
5. Calm	Never	Occasionally	Some of the time	Most of the time	All of the time
6. Relaxed	Never	Occasionally	Some of the time	Most of the time	All of the time
7. Worried	Never	Occasionally	Some of the time	Most of the time	All of the time
8. Enthusiastic	Never	Occasionally	Some of the time	Most of the time	All of the time
9. Uneasy	Never	Occasionally	Some of the time	Most of the time	All of the time
10. Contented	Never	Occasionally	Some of the time	Most of the time	All of the time
11. Gloomy	Never	Occasionally	Some of the time	Most of the time	All of the time
12. Cheerful	Never	Occasionally	Some of the time	Most of the time	All of the time

Your general well-being

The next questions ask about <u>your health in general, over the past month</u>.
- **Remember to concentrate on present and recent complaints, not those you have had in the distant past**
    - *There are no right or wrong answers, just answer as honestly as possible*
    - *(circle the answer that most applies to you, for each of the statements below)*

- In the past month, have you…

1. …been able to concentrate on whatever you're doing?	Better than usual	Same as usual	Less than usual	Much less than usual
2. …lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
3. …felt that you are playing a useful part in things?	More so than usual	Same as usual	Less than usual	Much less than usual
4. …felt capable of making decisions about things?	More so than usual	Same as usual	Less than usual	Much less than usual
5. …felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
6. …felt that you couldn't overcome your difficulties?	Not at all	No more than usual	Rather more than usual	Much more than usual
7. …been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less than usual	Much less than usual
8. …been able to face up to your problems?	More so than usual	Same as usual	Less than usual	Much less than usual
9. …been feeling unhappy or depressed?	Not at all	No more than usual	Rather more than usual	Much more than usual
10. …been losing confidence in yourself?	Not at all	No more than usual	Rather more than usual	Much more than usual
11. …been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
12. …been feeling reasonably happy, all things considered?	More so than usual	Same as usual	Less than usual	Much less than usual

Attempts to improve things at work

Many employers try and improve things for staff, but your opinion of these attempts to make things better may be different from what was actually intended. So this section asks for your feelings about such attempts to make improvements at work.

There are no right or wrong answers, just answer as honestly as possible

Please indicate how much you agree or disagree with the following statements.
(circle the answer that most applies to you, for each of the statements below)

Most of the programmes that are supposed to solve problems around here will not do much good	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Attempts to make things better around here will not produce good results	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Suggestions on how to solve problems will not produce much real change	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Plans for future improvement will not amount to much	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

Getting support at work

the following people? **(**for each one**,** circle the answer that most applies to you**)**

If you felt that your health might be suffering as a result of stress or strain in your life, how likely is it that you would raise the issue with your line manager?	Very unlikely	Somewhat unlikely	Neutral	Somewhat likely	Very likely

How much do you agree or disagree with the 2 statements below?

I would feel confident disclosing stress or mental health problems to my manager.	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
My manager would be supportive if I disclosed stress or mental health problems	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

How confident would you be in the situation described below?

If you thought someone you worked with was experiencing stress or mental health problems, how confident would you feel in discussing it with them?	Not at all confident	Slightly confident	Moderately confident	Confident	Very confident

Your views on the results of last year's survey and actions taken by your employer to support staff well-being

1. Did you see the summary of results from the last staff well-being survey? (the summary of results from last year's work and wellbeing survey was released by [PublicOrg] to staff in April 2015)	Yes	No (go to question 3)	Not sure (go to question 3)

2. The survey results show the main issues experienced by staff...	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

3. Do you have any comments about the results of the last survey, or the actions taken by [PublicOrg] since the last survey?]

4. **In the last year, a number of actions and changes have been put in place to support staff well-being. If you have experienced/taken part in these activities or changes, how do you rate them? (listed below)**

Mental health awareness sessions for managers	Have not taken part/ not aware of this		Positive	Neither positive nor negative	Negative
ChangeComms	Have not taken part/ not aware of this		Positive	Neither positive nor negative	Negative
The new Performance & Development Framework scheme (PDF), which replaced the existing supervision & appraisal process	Have not taken part/ not aware of this		Positive	Neither positive nor negative	Negative

5. If you attended a mental health awareness session, do you have any further comments, or example of how it has been useful?

Your comments and feedback

The main purpose of this final section is to provide an opportunity for all employees to provide additional **feedback to your employer** ([organisation]) about aspects of the workplace. This is optional and any feedback you provide will also help [organisation] gaining a better understanding of staff views about the workplace. Any comments you provide will still be treated anonymously and will go to your employer only after they have been combined with all feedback given by other employees.

Although your comments are still anonymous, **please take care to ensure you do not refer to any named individuals or provide any personally identifiable information**.

In your opinion, what is the most stressful aspect of your job? (Optional question)

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In your opinion, what could [PublicOrg] do to improve staff well-being? (Optional question)

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In your opinion, is there anything that [PublicOrg] has done well with regard to the well-being of staff? (Optional question)

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Although your comments will only be used for research purposes and to help [organisation] as described above, you can still choose whether or not these comments are included with those provided for your employer.

If you <u>DO NOT</u> want your comments being gathered together with the comments of other staff and forwarded to your employer, please tick the box. If you tick the box below, your comments will still be used for research purposes, but not forwarded to your employer.

☐ I do <u>NOT</u> want my comments to go to my employer

Thank you for completing the survey

Your responses are appreciated and will help [organisation] to identify and tackle the most important stress-related issues experienced by staff. It will also help with research looking at the links between work and well-being.

Further information and support

We often don't realise how common stress and mental health issues are, and according to Mind (the mental health charity) approximately one person in six is suffering from some form of stress or mental health issue **at any one time**. They can affect absolutely **anyone.**

This survey is the first step of a process which aims to improve the well-being of all staff. However, we know that changes don't happen overnight and that working in these uncertain times can be challenging.

If you think you might be affected by any of the issues raised in this survey, or feel that your health might be suffering as a result of unmanageable stress or strain in your life there are several sources of support available.

As [PublicOrg] employees you have access to confidential support, such as these: -

Occupational Health: referrals to the staff Occupational Health service can be made via the '**HR**' link on the staff intranet

Staff counselling service: you can access the staff counselling service on [phone number]

More information on work, stress and mental health is also available online…

Time to change: ending mental health stigma: -

www.time-to-change.org.uk/what-are-mental-health-problems

Mind: taking care of yourself at work: -

www.mind.org.uk/for-business/mental-health-at-work/taking-care-of-yourself

Appendix B: survey promotion, and completion rates by day

Survey responses by day (online only)

Final total: 1291

1146

1015

755

0

Monday: Survey launch. Survey featured on intranet and email sent to all staff. Survey feature in weekly PublicOrg online newsletter

Email reminder sent to all staff

Survey info on pay-slips

Decision to extend the survey extended for a further week

2nd email reminder sent to all staff

Survey promoted again on intranet homepage

3rd email reminder to all staff

Daily total

Running total

Number of responses

Week 1   Week 2   Week 3   Week 4

Week number

Appendix C: chi-square tests comparing T1 sample to workforce

SPSS output

Age

	Observed N	Expected N	Residual
16-24	19	53.9	-35.9
25-34	232	277.6	-44.6
35-44	328	358.5	-30.5
45-54	564	482.3	81.7
55-64	252	220.7	31.3
66+	30	30.0	0.0

Test Statistics

	Age
Chi-Square	51.663[a]
df	5
Asymp. Sig.	.000

Gender

	Observed N	Expected N	Residual
Female	986	1009.2	-23.2
Male	435	411.8	23.2

Test Statistics

	Gender
Chi-Square	1.834[a]
df	1
Asymp. Sig.	.176

Full/part-time

	Observed N	Expected N	Residual
Part-time (<36hrs)	294	498.6	-204.6
Full-time (36hrs+)	1130	925.4	204.6

Test Statistics

	FT_PT_status
Chi-Square	129.250[a]
df	1
Asymp. Sig.	.000

Departments

	Observed N	Expected N	Residual
Social care	502	342.9	159.1
Business	355	320.1	34.9
Environment	187	350.8	-163.8
Community	282	323.8	-41.8
Buildings	66	62.1	3.9
Health	20	12.3	7.7

Test Statistics

	Directorate
Chi-Square	164.670[a]
df	5
Asymp. Sig.	.000

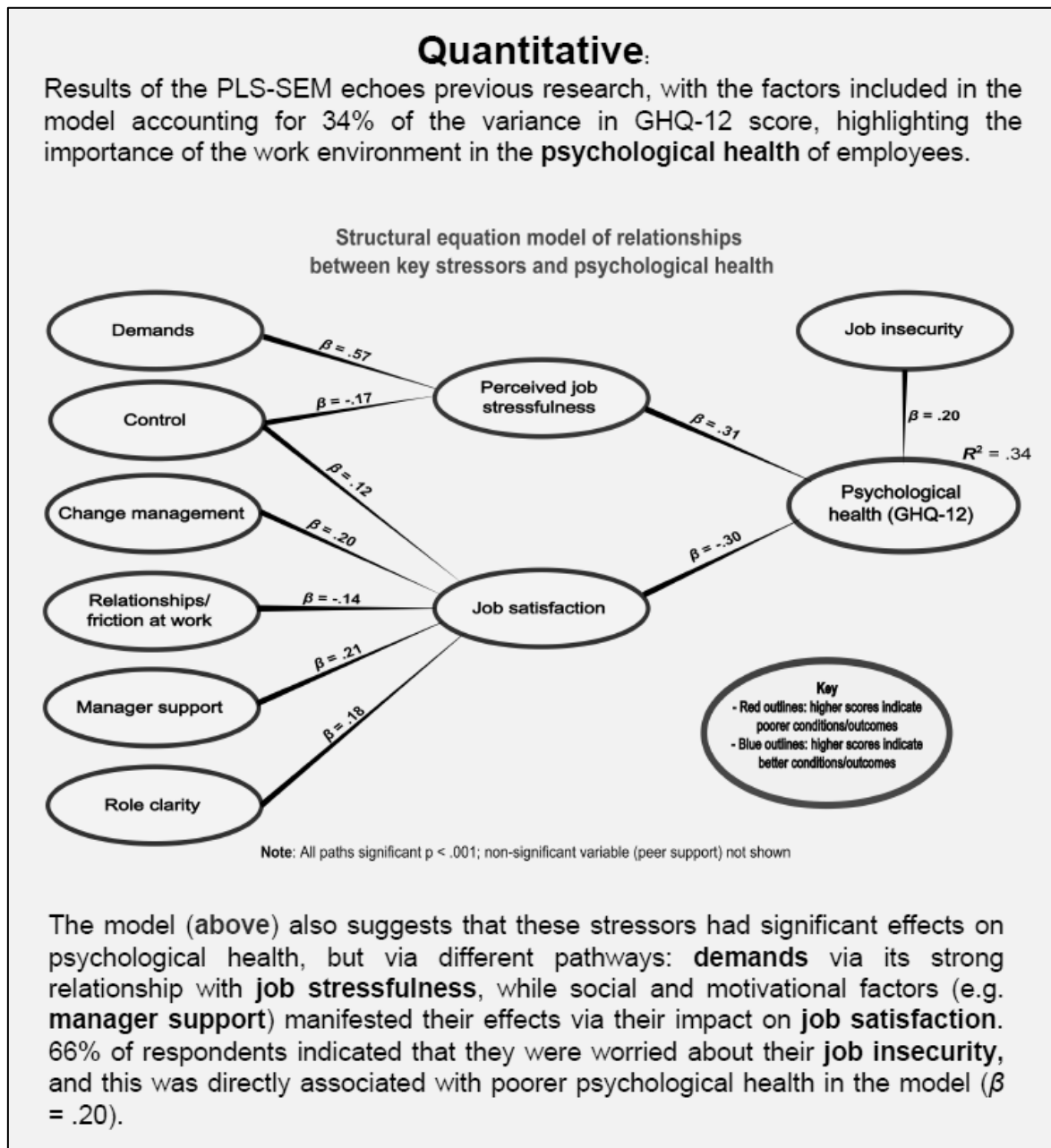## Appendix D: mediated model of work stressors and psychological health

Figure from Hudson (2015): poster presented at the 2015 British Psychological Society annual conference (DOI: 10.13140/RG.2.1.3969.1928)

Appendix E: independent *t*-test of difference between T1-only & 'T1+T2' sample

Mean scores for study variables for participants completing T1 survey only, and those completing both surveys (based on independent t-tests of difference between groups)

T1 variable		Mean	SD	Significance
GHQ	Completed both	13.87	6.27	
	T1 only	13.73	6.49	
JRWB	Completed both	3.11	0.75	
	T1 only	3.05	0.79	
Job stress	Completed both	2.91	0.92	
	T1 only	2.97	0.93	
Job Satisfaction	Completed both	3.58	0.86	
	T1 only	3.55	0.92	
Demands	Completed both	3.13	0.70	
	T1 only	3.16	0.69	
Control	Completed both	3.62	0.70	$p < .001$
	T1 only	3.45	0.76	
Manager support	Completed both	3.56	0.90	
	T1 only	3.52	0.93	
Peer support	Completed both	3.85	0.68	
	T1 only	3.83	0.71	
Relationships	Completed both	3.90	0.70	
	T1 only	3.84	0.75	
Role clarity	Completed both	4.04	0.69	
	T1 only	4.09	0.70	
Change	Completed both	3.01	0.87	
	T1 only	3.02	0.90	
POS	Completed both	3.18	0.88	
	T1 only	3.20	0.91	
PSC	Completed both	2.90	0.82	
	T1 only	2.92	0.82	
Job Insecurity	Completed both	3.67	0.89	
	T1 only	3.61	0.96	
CAOC	Completed both	3.05	0.81	
	T1 only	3.03	0.84	
Age	Completed both	44.90	9.4	
	T1 only	44.81	10.0	
Gender	Completed both	1.29	0.46	
	T1 only	1.31	0.46	
Hours	Completed both	35.73	6.24	
	T1 only	35.22	7.20	

Appendix F: independent *t*-test of difference between T2-only & 'T1+T2' sample

Mean scores for study variables for participants completing T1 survey only, and those completing both surveys (based on independent t-tests of difference between groups)

T2 variable		Mean	SD	Significance
GHQ	Completed both	13.87	6.39	
	T2 only	13.65	6.92	
JRWB	Completed both	3.11	0.76	
	T2 only	3.19	0.80	
Job stress	Completed both	2.99	0.92	
	T2 only	2.92	0.97	
Job satisfaction	Completed both	3.56	0.88	$p < .05$
	T2 only	3.71	0.89	
Demands	Completed both	3.10	0.68	$p < .01$
	T2 only	3.25	0.75	
Control	Completed both	3.55	0.70	$p < .001$
	T2 only	3.39	0.75	
Manager support	Completed both	3.50	0.89	
	T2 only	3.56	0.97	
Peer support	Completed both	3.78	0.71	
	T2 only	3.86	0.75	
Relationships	Completed both	3.88	0.73	
	T2 only	3.96	0.77	
Role clarity	Completed both	4.04	0.66	$p < .01$
	T2 only	4.16	0.67	
Change	Completed both	2.91	0.88	$p < .01$
	T2 only	3.08	0.90	
POS	Completed both	3.16	0.85	$p < .01$
	T2 only	3.32	0.90	
PSC	Completed both	2.89	0.81	$p < .05$
	T2 only	3.02	0.80	
Job insecurity	Completed both	3.59	0.92	$p < .01$
	T2 only	3.39	0.99	
CAOC	Completed both	3.06	0.82	
	T2 only	2.96	0.79	
Age	Completed both	45.07	9.39	$p < .05$
	T2 only	43.73	10.43	
Gender	Completed both	1.29	0.46	
	T2 only	1.27	0.45	
Hours	Completed both	35.84	6.10	$p < .001$
	T2 only	33.92	7.84	

Appendix G: independent *t*-test of full T1 and T2 samples for all study variables

Comparison of mean scores for study variables of full T1 and T2 samples (based on independent *t*-tests of difference between groups)

Variable	Time	Mean	SD	Significance
GHQ	T1 (*n* = 1,425)	13.77	6.41	
	T2 (*n* = 1,008)	13.76	6.62	
JRWB	T1	3.08	0.78	*p* < .05
	T2	3.14	0.78	
Job stress	T1	2.94	0.93	
	T2	2.96	0.95	
Job Satisfaction	T1	3.56	0.90	
	T2	3.63	0.89	
Demands	T1	3.15	0.70	
	T2	3.16	0.72	
Control	T1	3.51	0.75	
	T2	3.48	0.73	
Manager support	T1	3.53	0.91	
	T2	3.52	0.93	
Peer support	T1	3.84	0.70	
	T2	3.82	0.73	
Relationships	T1	3.87	0.74	
	T2	3.92	0.75	
Role	T1	4.08	0.70	
	T2	4.09	0.67	
Change	T1	3.02	0.89	
	T2	2.99	0.89	
POS	T1	3.19	0.90	
	T2	3.23	0.87	
PSC	T1	2.91	0.82	
	T2	2.95	0.81	
Job Insecurity	T1	3.62	0.95	*p* < .01
	T2	3.50	0.96	
COAC	T1	3.04	0.83	
	T2	3.01	0.81	

Appendix H: ethical approval

1 October 2013

Dear Ashley and John,

<u>RE: ETHICS APPLICATION HSCR13/19</u> – An assessment and intervention examining working experiences and well-being in an organisational setting

Based on the information you provided, I am pleased to inform you that application HSCR13/19 has now been approved on the condition that you provide the Panel with a copy of the organisational agreement for your second site once it is available.

If there are any changes to the project and/ or its methodology, please inform the Panel as soon as possible.

Yours sincerely,

Rachel Shuttleworth

Rachel Shuttleworth
College Support Officer (R&I)

Appendix I: thesis-related conference papers and presentations

- Hudson, J.H. & Weinberg, A. (2016), The best-laid plans: improving employee well-being in the midst of organisational change. Paper presented at the Institute of Work Psychology Conference, University of Sheffield, 22nd June 2016

- Hudson, J.H. (2016). What's the problem? Risk assessment using the HSE stress management standards indicator. Paper presented at the British Psychological Society Division of Occupational Conference, Nottingham, 6th January, 2016. DOI: 10.13140/RG.2.1.1216.6803

- Hudson, J.H. (2015). Psychosocial conditions in a large public sector organisation during 'austerity': what's the problem? Poster presented at the British Psychological Society Annual Conference, Liverpool, 7th May, 2015. DOI: 10.13140/RG.2.1.3969.1928

- Hudson, J.H. (2015). Work stressors in a large public sector organisation. Paper presented at the Salford Postgraduate Research Conference, University of Salford, 26th May, 2015.