**Abstract:**

This paper discusses social prescribing as part of the wider NHSE Universal Personalised model and describes how community nurses can engage with social prescribing systems to support community resilience. A case study based on example of gardening, as a nature-based social prescription provided by the RHS Bridgewater Wellbeing Garden, is provided to illustrate the scope, reach and impact of non-medical, salutogenic approaches for community practitioners. We argue that social prescribing and in particular, nature-based solutions, such as gardening, can be used as a non-medical asset-based approach by all health practitioners working in the community as a way to promote health and wellbeing. We consider how the negative impact of social distancing resulting from Covid19 restrictions could be diluted through collaboration between a holistic social prescribing system and community staff. The paper presents a unique perspective on how community nurses can collaborate with link workers through social prescribing to help combat social isolation, anxiety and support resilience.

**Background**

It is acknowledged that community nurses have employed non-medical prescribing as a specialist clinical intervention since 1994 (Luker & McHugh 2002). Whilst non-medical prescribing is described as being an activity *undertaken by specially trained nurses, working within their clinical competence as either independent and/or supplementary prescribers* (RPS 2016), to prescribe pharmacological products, conversely, social prescribing refers to a non-medical asset-based process that *"supports people, via social prescribing link workers, to make community connections and discover new opportunities, building on individual strengths and preferences, to improve health and wellbeing"* (National Academy for Social Prescribing 2020) which does not include a clinical intervention. Historically, community nurses have been engaged in 'social prescribing' activities through the process of 'community referral' which signpost patients to non-clinical solutions that improve wellbeing. However, contemporary social prescribing is thought to provide a conduit for a more comprehensive personalised approach as part of the wider NHSE 'Universal Personalised Care' model. Using asset-based approaches, rather than traditional deficit based medical models, social prescribing is considered to be effective in supporting the resilience of individuals and communities (Henry & Howarth 2019). The universal personalised care model has been operationalised through six key standard components: *shared decision making; personalised care and support planning;*

*enabling choice; social prescribing and community-based support; supported self-management; and personal health budgets and integrated personal budgets* – across the NHS and the wider health and care system (NHSE 2019).

Since 2016, the social prescribing movement has grown rapidly, resulting in the adoption of an array of models, processes and approaches by the health and voluntary sectors. Predicated on '*what matters to the person'* as opposed to '*what's the matter with them*' (NHSE 2019), the process of social prescribing initiates personalised care through a referral to a link worker, who utilises a wellbeing conversation with the beneficiary/patient to understand '*what matters to them'*. Invariably, the link worker meets with a beneficiary on a number of occasions to develop a rapport and determine the most suitable social prescription. Evoking a wellbeing conversation is typically acknowledged to form the basis of an 'holistic' model, which encompasses active listening, through time spent with the patients and, where needed, collaboration with other agencies and services. (Kimberlee 2015). However, other approaches may simply 'sign post' an individual to an asset in the community, or hold a single conversation that facilitates a social prescription. These latter approaches are commonly referred to as 'light', and 'medium' social prescriptions (Kimberlee 2015). The wellbeing conversation in these latter examples is limited and thus, opportunities for personalised approaches that support shared decision making are often curtailed.

**Social Prescribing Models.**

Since its inception, holistic social prescribing has influenced a paradigm shift from a pathogenic, medical model, towards a salutogenic model that embraces '*what makes people healthy*' rather than focussing on disease (Antonovosky 1987). Significantly, salutogensis facilitates personalised care by ensuring that the person is placed at the centre of decision making and wrapping service provision around their needs, rather than service demands. This juxtaposed perspective gives greater credence to an individual's *capacity*, rather than *incapacity* through facilitating access to resources that promote health and wellbeing (Lindstro¨m and Eriksson 2005). Archetypal salutogenic approaches have buoyed asset-based community development (ABCD) which has bolstered community resilience and helped dilute traditional deficit-based models (Henry & Howarth 2019). It is reported that ABCD approaches are effective as part of the public health strategies because they can target specific communities or groups (Cook *et al* 2019). The symbiotic relationship between ABCD approaches and holistic social prescribing models provide unique opportunities to use

salutogenic methods to promote health and wellbeing to diverse communities. Hence, social prescribing is understood to be a key process that has facilitated the growth of personalised care across the UK. The holistic model described by Kimberlee (2015) is the preferred choice across many organisations and offers a salutogenic approach which ultimately support a person decision about their wellbeing – and not just the illness. This asset-based, sautogenic approach contrasts with the medical deficit approach and places the person in control of the decision making.

Ironically, there are no 'standard' or 'common' social prescriptions, as each offer is personalised, based on the wellbeing conversation with the link worker. The universal personalised approach means that any asset-based solution which meets the needs of the individual can be utilised. This may include, for example, exercise classes, yoga, knit & natter groups, gardening or arts-based activities. The range of services reflects the wider community assets available and are typically provided through the Voluntary Community and Social Enterprise (VCSE) sector involving charities, social enterprises, private businesses and the voluntary sector. Generally, socially prescribed services are not funded centrally and are reliant upon donations, grants and funding awards. More recently, Clinical Commissioning Groups (CCG's) have started to fund socially prescribed services where there is a developing evidence base of effect and the needs of the local population.

**Natural Solutions as A Social Prescription.**

The use of nature-based has been increasingly been embraced as a social prescription (Howarth & Lister 2019). Historically, nature has been used to aid healing as far back as the 1600's, where, during the Crimean war, Florence Nightingale observed the impact of flowers on soldiers physical and mental wellbeing.

> *I shall never forget the rapture of fever patients over a bunch of brightly coloured flowers….people say the effect is only on the mind. It is no such thing. The effect is on the body too*!"

More contemporary evidence reports that access to nature can increase longevity (Takano et al., 2002), dietary intake (Christian *et al* 2014), mental health (Bragg & Atkins 2016), and reduce the incidence of diabetes (Dalton *et al*., 2016). The growing evidence base presents a compelling case for the use of nature-based solutions as a social prescription because of its ability to engage a diverse population (Cook *et al* 2019) and benefit social and community cohesion (Gonzalez *et al* 2010). Van den Bosch & Bird (2019) argue that being exposed to

nature and engaging with nature-based activities such as gardening, walking or more structured therapeutic horticulture can reduce the inflammatory response pathology and subsequently help prevent the development of long-term chronic conditions.

Access and use of nature can take place on different 'levels', each of which can be used as a social prescription. In 2005, Jules Pretty proposed that there are three levels of nature: '*viewing*', '*being*' and '*participating*'. For example, a view of nature can help improve mood, anxiety and promote wellbeing, which was illustrated in Ulrichs infamous study in 1984 of people recovering in hospital from cholecystectomy, in which it was reported that patients who had a view from their hospital room needed less analgesics, recovered quicker and were politer to their carers than those without a view. Even the colour of nature helps; the human eye is designed to respond quickly to colour, for example, it is acknowledged that blues relax us and induces a sense of calm and green is understood to help us rest and heal (Kurt 2014). Equally, being outdoors in nature can help improve our wellbeing and our senses such as sight, smell and touch allow us to seek out nature and in coniferous forests phytoncides emitted by evergreen scents from trees, increasing serotonin and help to combat stress (Li 2009). Moreover, Bakolis *et al* (2018) found that bird song can boost mental wellbeing and is a great antidote to stress and anxiety. Finally, participating in nature through structured activities, such as gardening impacts in all our sense fostering a beneficial impact on physical and mental wellbeing. The following case study based on research with the RHS Wellbeing Garden revealed how the different levels of nature through gardening can help support people with complex, co-morbid conditions as part of a social prescription.

**Case study from the RHS – how nature can help as part of a social prescription**

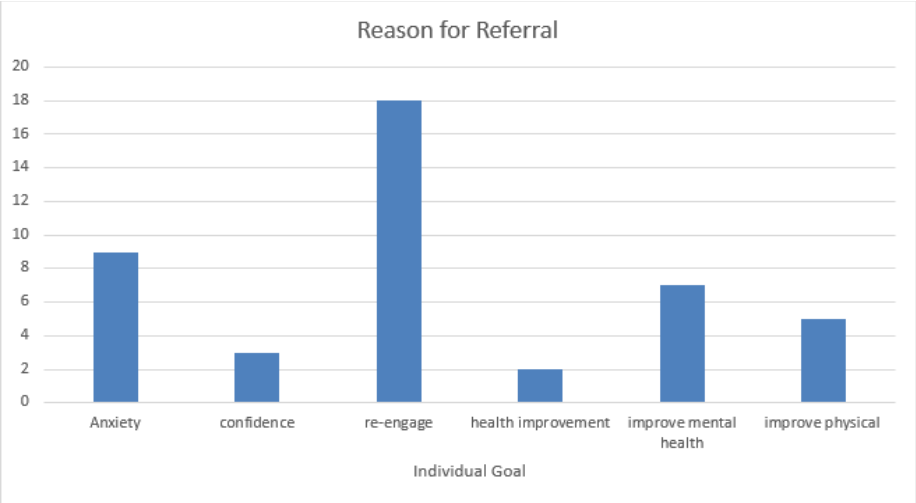
The Bridgewater Therapeutic Garden is being created within the Walled Garden, a key part of the 154-acre RHS Garden Bridgewater. The new design by Ben Brace, RHS Horticultural Project Manager is the result of over six months' consultation with more than 20 organisations, including health and social care providers and charities working with people who have mental and physical health conditions. The garden aims to be a place to nurture mental, physical and social health through gardening as evidenced by recent studies (Soga *et al*., 2017). The idea is to create a sanctuary that offers space to grow, space to reflect and space to meet others and get moving.

The Wellbeing Garden at Bridgewater includes distinct rooms, with distinct typologies. This helps to reach users at all levels, and plays on the kaleidoscope of personal preferences for scent, including lavender plants, which are known to have physiological effects interacting with brain receptors and neurotransmitters to promote relaxation (Lopez et al., 2017) colours taking into consideration the ecological valence theory of human colour preference and different hues, saturation and brightness to link with emotional responses to colour (Wilms and Oberfield, 2018) plant choices and gardening styles (Taylor, 2008). Also, the transitional spaces between the rooms, can be seen as journeys from one life stage or level of treatment to the next. Rooms can also aid contemplation. The garden will feature areas that help to bring people into the present moment, a form of mindfulness and the act of gardening within it hopes to hold people in the present moment as described by the Flow Theory, Csikszentmihalyi, (2014) and creating awesome moments through gardening activities, plants, colour, scent and touch. This could be simply giving life by germinating seedlings. It is hoped that these experiences help people to heal whilst reversing the challenges and potential negative health and environmental impacts of the philosophical challenge of the Nature Deficit Disorder (Louv 2005). Reflective spaces, planted with woodland glade plants such as birch, hazel, and evergreen ferns which incorporate fractals can have positive psychophysiological effects (Van Den Berg, 2011). Growing spaces, including raised planters in which users will be encouraged to take over to grow and care for plants of their choosing will enable people to meet and socially reconnect with other people. Studies have shown that loneliness can have negative effects on physical and mental health, even affecting life expectancy (Yang et al., 2013). This garden hopes to provide a place of belonging to reverse the challenges of social isolation. A series of circular paths will invite exploration, encourage exercise and provide positive distractions. The provision of more solitary spaces will allow for contemplation and reflection by visitors who prefer greater seclusion. It will also be a space for activities such as music, crafts, nature watching, yoga and meditation.

**Results Section**

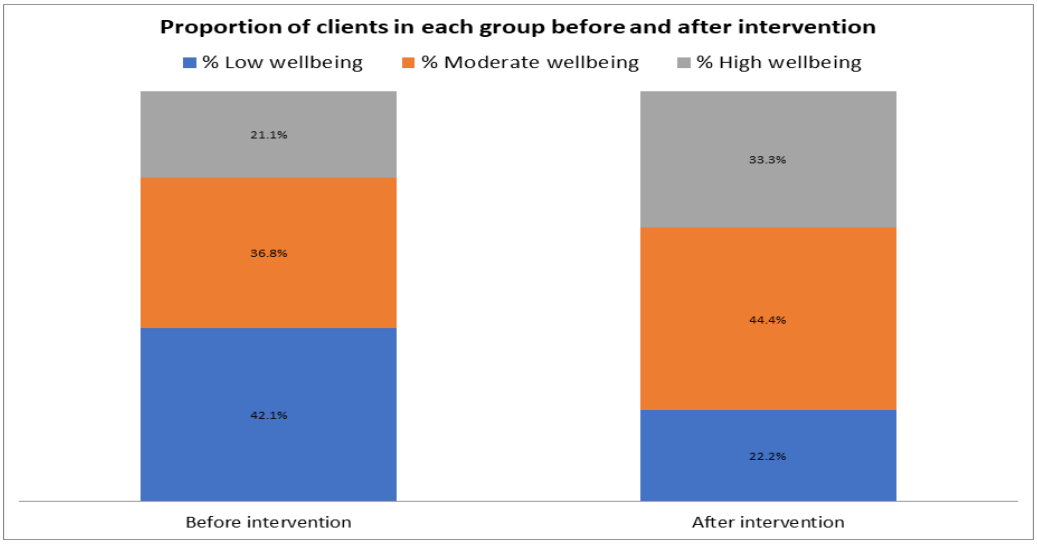
A total of 47 people were referred to the Wellbeing Garden for a number of reasons, including; anxiety reduction, to develop confidence and improve physical and/or mental wellbeing (see figure 1). There ages of those who attended ranged between 30 – 85, although the majority of people were above 60 years of age and there was an even split between male and females. Of the 47 referred, 9 people completed the full pilot 12 week programme, others were unable to complete the programme due to ill health.

**Figure 1: Reasons for Referral**




The participants mental wellbeing was scored and recorded before and after attending the Wellbeing Garden using SWEMWBS which is a short version of the validated Warwick-Edinburgh Mental Well-being Scale. The scale enables the monitoring of mental wellbeing and uses positively worded statements relating to how often they have been feeling in relation to optimism, usefulness, relationships, personal clarity and decision making. There are five response categories ranged from '*none*' – '*all of the time'* for each of the statements. The SWENWBS scores indicated that participants wellbeing scores improved and 'low wellbeing' scores in particular improved by 20% (see table 1).

**Table: Proportion of Clients in Each Group Before and After Intervention**




The positive outcomes observed for the participants of the pilot 2019 Bridgewater Wellbeing Garden programme indicated that those who joined in the gardening activities had improved

mental wellbeing scores, improved confidence and reduced social isolation. In addition, we collected qualitative feedback through focus groups with those who attended the Wellbeing Garden. The qualitative responses were thematically analysed and highlighted the positive impact, for example, one participant spoke about the positive impact this experience has had, which has motivated him to improve his mobility through the use of a mobility scooter:

> *"…it just takes me out my shell and really made me … positive; I'm a lot more positive now. As I said - just before I came down here - I'd given up, really. That's why I got the scooter. I thought, now, I'm going to get myself a scooter and I'm going to get myself out. This is just like the icing on the cake." (Participant 1)*

> *I can't begin to say. It's done me the world of good. I'd say it's saved me. … I don't know where I'd have gone if there hadn't have been this. I'm so grateful I agreed to the Enhanced Care Team, because I wouldn't have been able to do it otherwise." (Participant 3)*

When triangulated the SWENWBS data and qualitative findings a clear case for gardening as nature-based social prescriptions at RHS Bridgewater. Thus, the future programme for the Community Wellbeing garden will incorporate a varied daily programme of user-led activities for participants from a variety of local organisations. In order to provide access to the three levels of nature, this will include therapeutic gardening activities within the Community Wellbeing garden as well as a range of other interventions such nature walks and craft-based activities. The Wellbeing Garden represents one example of how nature-based interventions can be used as a social prescription. Community Nurses in the locality will be able to refer patients to the link worker and help promote this asset based, salutogenic approach to wellbeing.

**Implications for Community Nurses: Getting Involved.**

The concept of utilising non-medical approaches is not new to community nursing, for example, the need to promote a more salutogenic approach was espoused over 14 years ago by Cowley & Billings (1999), who advised that the prevalent '*illness perspective'* in the NHS diluted awareness of the socioeconomic influences of wellness. In doing so, there is a risk that the pathogenic model prevails in an era where the divide between health and social inequalities continues to evade public health. Community nurses have significant experience of salutogenic approaches and could provide added value through working with link workers to help communities reconnect, engage and participate in communities through social prescription

services to non-medical interventions, such as RHS Bridgewater. This expertise places community nurses in a unique position to support this social movement and promoting self-care and autonomy through social prescribing. Simply raising awareness of non-medical interventions, collaborating across the inter-agency interface and promoting cross-sectional working with the third sector could help support and empower communities and individuals. However, it has been recently acknowledged that personal autonomy has been impacted by the introduction of Covid 19 restrictions, resulting in mass population social distancing, and presenting significant health and wellbeing challenges. Social prescribing services have responded by '*repurposing*' social prescriptions and the link worker role to facilitate leaflet drops, food bank deliveries, online safeguarding and the development of '*resilience teams*' designed to support communities in this time of crisis. Community nurses could use holistic social prescribing to offer a solution and help prevent social isolation caused by distancing and promote community resilience.

Arguably, nature is "naturally" a great healer, and during crises such as Covid 19, can offer respite to anyone able to look outside, take their (once a day exercise) walk or where possible, participate in nature through gardens and gardening. Paradoxically, promoting a nature-based activity could help limit the negative emotional and mental impact of social distancing through supporting ways to engage with nature that enhance mood and reduce anxiety. Litleskare *et al* (2020) point out that exposure to natural environments, especially in times of struggles, can help reduce stress and promote feelings of 'being away'. Thus, promoting nature as a multisensory intervention that could help alleviate stress and promote a sense of calm and wellbeing (Litleskare *et al* 2020). Using nature-based solutions like gardening as part of a social prescription to combat these social distancing could reach out to people who may not typically go outside to exercise, view or be in nature.

Collaborating with link workers will facilitate involvement with local mutual aid groups that could help support those who are self-isolating through the social prescription offer. Connecting people to the wider community assets, including nature, through gardening can support community cohesion, and forge a stronger connection between the voluntary sector. Community nurses have an opportunity to engage with link workers to reach out through webinars and work together to sustain personalised, salutogenic approaches to health and wellbeing, promote the use of nature and get involved in wider asset-based activities.

## Conclusion

Now is the time for collaboration and support across the statutory and third sectors to use an evidence-based approach that can help some of our most vulnerable in society, during and after the Covid19 crisis. Supporting individuals and communities using traditional ABCD approaches can help the community recover from the onslaught of Covid19 and help reduce patient anxiety. Through working alongside link workers, community nurses could help to assess and identify those who may benefit from a salutogenic response. Being aware of the social prescribing network in the locality can promote collaboration and inter-professional care during and post crisis, equally, supporting individuals to access nature (where possible) through the three levels, can have significant benefits and aid community recovery and make a difference to our communities.

## References.


Antonovosky A. (1987) *Unravelling the Mystery of Health. How People Manage Stress and Stay Well.* San Francisco: Jossey-Bass.

Bragg, R., Atkins, G. (2016). *A Review of Nature-Based Interventions For Mental Health Care*. Report No. 204.

Christian, MS., Evans, CEL., Cade, JE. (2014). Public Health Research. Does the Royal Horticultural Society Campaign for School Gardening increase intake of fruit and vegetables in children? Results from two randomised controlled trials. Southampton (UK): *NIHR Journals Library*.

Cook P., Howarth M., Wheater P. (2019) Biodiversity and Health in the Face of Climate Change: Implications for Public Health. in Marselle M.R., Stadler J., Korn H., Irvine K.N., Bonn A. (2019) *Biodiversity and Health in the Face of Climate Change: Challenges, Opportunities and Evidence Gaps*. Springer, Cham.

Cowley, S., Billings, JR. (1999) Resources revisited: salutogensis from a lay perspective. *Journal of Advanced Nursing.* 29 (4) 994 – 1004.

Csikszentmihalyi, M. (2014). *Flow and the Foundations of Positive Psychology: The Collected Works of Mihaly Csikszentmihalyi*. Dordrecht: Springer, 2014. ISBN 978-94-017-9087-1

Dalton, A.M., Jones, A.P., Sharp, S.J., Cooper, A.J., Griffin, S., Wareham, N.J., (2016). Residential neighbourhood greenspace is associated with reduced risk of incident diabetes in older people: a prospective cohort study. *BMC Public Health* 16 (1), 1171.

Gonzalez, M.T., Hartig, T., Patil, G.G., Martinsen, E.W., & Kirkevold, M. (2010) Therapeutic horticulture in clinical depression: A prospective study of active components. *Journal of Advanced Nursing*. 66, 2002-2013 doi: 10.1111/j.1365-2648.2010.05383.x.

Henry, H., Howarth, M. (2018) An overview of using an asset-based approach to nursing. *General Practice Nursing*: Vol 4. No 4. P 53-59.

Howarth, M., Lister, C. (2019) Social prescribing in cardiology: rediscovering the nature within us. *British Journal of Cardiac Nursing* Vol. 14, No. 8.

Bakolis, I., Hammoud, R., Smythe, M., Gibbons, J., Davidson, N., Tognin, S., Mechelli, A. (2018) Urban Mind: Using Smartphone Technologies to Investigate the Impact of Nature on Mental Well-Being in Real Time, *BioScience*, Volume 68, Issue 2, p. 134–145, https://doi.org/10.1093/biosci/bix149.

Kimberlee, R. (2015). What is social prescribing? *Advances in Social Sciences Research Journal*, *2*(1), 102–110. https://doi.org/10.14738/assrj.21.808.

Kurt, S., & Osueke, K. K. (2014). The Effects of Colour on the Moods of College Students. *SAGE Open*. https://doi.org/10.1177/2158244014525423.

Li, Q. (2009) Effect of phytoncide from trees on human natural killer cell function. *International Journal of Immunopathology and Pharmacology*. Vol. 22: 4, p 951-59.

Lindstro¨m, B., Eriksson, M. (2005) Salutogenesis. *J Epidemiol Community Health*; 59: p.440–442.

Litleskare, S., MacIntyre, TE., Calogiuri, G. (2020) Enable, Reconnect and Augment: A New ERA of virtual nature research and application. *Int. J. Environ. Res. Public Health* 17, 1738; doi:10.3390/ijerph17051738.

Luker, KA., McHugh, GA. (2002) Nurse prescribing from the community nurse perspective/ *International Journal of Pharmacy Practice*. Vol 10, issue 4, 273 – 280.

National Academy for Social Prescribing (2020) *A Social Revolution in Wellbeing*. NASP: London.

NHSE. (2019) *The Long Term Plan*. HMSO: London.

Pretty, J., Peacock, J., Sellens, M., & Griffin, M. (2005) The mental and physical outcomes of green exercise. *International Journal of Environmental Health Research,* 15, 319-337 doi: 10.1080/09603120500155963.

Royal Pharmaceutical Society. (2016) *A Competency Framework for All Prescribers.* RPS: London.

Soga, M., Gaston, KJ., & Yamaura, Y. (2017) Gardening is beneficial for health: A meta-analysis. *Preventative Medicine Reports*. 92-99.

Takano, T., Nakamura, K., Watanabe, M., 2002. Urban residential environments and senior citizens' longevity in megacity areas: the importance of walkable green spaces. *J. Epidemiol. Community Health* 56 (12), 913–918.

Taylor, L. (2008) *A Taste for Gardening Classed and Gendered Practices*. Routledge: London.

Ulrich, RS. (1984). View through a window may influence recovery from surgery. *Science* 224, 420-21.

Van den Bosch, M,. Bird,W. (2019) *Oxford Textbook of Nature and Public Health: The Role of Nature in Improving the Health of a Population*. Oxford Textbooks.

Wilms, L., Oberfeld, D .(2018) Color and emotion: effects of hue, saturation, and brightness. Psychological Research. 82(5):896-914. doi: 10.1007/s00426-017-0880-8.

World Health Organization. (2010) *Global Recommendations on Physical Activity for Health*; WHO: Geneva, Switzerland.

Yang, YC., McClintock,MK., Kozloski, M., & Li, T. (2013) Social isolation and adult mortality: the role of chronic inflammation and sex differences. *Journal of Health & Social Behavour.* 54(2):183-203. doi: 10.1177/0022146513485244. Epub 2013.