Social prescribing in cardiology : rediscovering the nature of and within us

Howarth, ML and Lister, C

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Social Prescribing in Cardiology: Rediscovering the nature of and within us:

Abstract:

Personalised care is integral to the delivery of the NHSE Long Term Plan. Enabling choice and supporting patients to make decisions predicated on what matters *to them*, rather than what is the matter *with them*, is a fundamental part of the NHS vision. Social prescribing uses non-medical, asset based, salutogenic approaches to promote this personalised paradigm, and places the patient central to decision making. We discuss how Personalised care can be used to help people with Cardiovascular Disease (CVD) using socially prescribed 'nature-based' interventions to support the prehabilitation and rehabilitation of patients with CVD. The concept of Personalised care outlined and the significance of salutogenic principles as complementary approach to the pathogenic model is discussed. We argue that this seemingly novel approach to using nature-based interventions can help promote wellbeing for people with CVD as part of the wider personalised agenda.

Health Challenges: Social Influences & Advent of Personalised Care.

The prevalence of Cardiovascular disease (CVD) continues to rise and is responsible for 17.9 million deaths annually which represents 31% of all global deaths (World Health Organisation 2019). As such, Cardiovascular disease remains the UK's single biggest killer despite all our progress (Public Health England 2019). Physical inactivity and unhealthy lifestyles can increase the risk of developing CVD, and it is estimated that there are approximately 7 million people living with heart and circulatory disease (British Heart Foundation 2018). Therefore, it is reasonable to state that most CVD are potentially avoidable, while recognising that this is not an easy goal. With advances in medicine, survival rates from CVD are likely to increase, but we must consider quality of life as opposed to just longevity. A total of 150,000 deaths, equal to one death every three minutes, results from CVD, with 42,000 people being under the age of 75. Worryingly, despite CVD causing the largest number of premature deaths, the rate of improvement has slowed. Arguably, many of the causal factors associated with heart disease are linked with health and social inequalities, thus, the need to explicate ways in which wellbeing can be promoted through upstream (preventative) approaches is essential if we are to stem the continued rise in the prevalence of CVD. Upstream methods can help prevent avoidable disease through personalised approaches that encourage smoking cessation, reduced inactivity, weight management and self-care strategies. Many of these targeted approaches are favoured as part of a comprehensive cardiac rehabilitation – which can also support an individual post discharge from cardiac care. Yet, Lima et al (2018) report that supportive rehabilitation, such as cardiac rehab, remains underutilised in the community. Moreover, Travis (2014) stated that whilst modern medicine has done much to prevent disease and treat ill-health, the public's expectations has exceeded the public's ability, capacity (and perhaps desire) to help themselves.

The recent launch of the NHS Long Term Plan (DHS 2019) heralded a new approach to supporting people with long terms conditions through a new Personalised Care Model, which

will empower people to have more control over their health and wellbeing. The Personalised model reflects many of the 'Person Centred' principles described by Cormack & McCance (2006) and is advocated by NHSE as an inter-disciplinary approach. Personalised Care is based on the premise of 'what matters to me' and will be delivered through Primary Care Networks (PCNs) that will work with community groups and forums to promote wellbeing and resilience. Patients will be encouraged to work in partnership to facilitate shared decision making. The model is being rolled out and it is estimated that 2.5 million people will be supported by the plan by 2023/24. This ambitious target is set to double within a decade (DHS 2019). As a non-medical approach, social prescribing, as part of the larger NHS Long Term Plan, Personalised Care model, can help individuals navigate services post-discharge and address the wider determinants of health. It is envisaged that social prescribing can be used as a prescription for change as part of the wider NHSE comprehensive Personalised Care Model to support people with long term conditions to be involved in their own personalised solutions to health and wellbeing.

Social Prescribing:

Predicated on 6 key principles, and similar to that of 'Person Centred Care (McCormack & McCance 2006), Personalised Care will be provided to people with long term conditions to enable choice and participation in care decision making. This has required a whole systems transformation, that enables collaboration across a range of organisations from primary, secondary and third sectors. Personalised care includes the principles of person-centred care with support planning that is based on an equal conversation between the individual and the professional. Supporting this, is the use of personalised care budgets providing greater choice and flexibility about care. The whole systems transformation is built on an asset rather than a needs-based approach, and as a fundamental aspect, social prescribing presents a unique, non-medical, asset- based philosophy that embeds personalised care to facilitate the support of individuals and communities. For those people with CVD, this means the potential of a more streamlined, personalised rehabilitation approach that builds on the persons strengths and not just physical limitations as a result of disease. Future cardiac services, therefore, could focus on the needs of the individual rather than the service, through facilitating choice, self-determination and self-directed care. They could also seek to enhance the person's optimism and feeling of self-worth, increasing the potential for a healthier lifestyle to be viewed as a positive outcome.

Social prescribing has been described as a means of enabling GPs and other frontline healthcare professionals to refer patients to a link worker – to provide them with a face to face conversation during which they can learn about the possibilities and design their own personalised solutions, i.e. 'co-produce' their 'social prescription'. The social prescribing process is designed as a process empower people with social, emotional or practical needs to find solutions which will improve their health and wellbeing, often using services provided by the voluntary, community and social enterprise sector (Polley et al, 2017). It is anticipated that the range of support offered to people through social prescribing will increase and diversify, through the employment of over 1000 trained link workers by the end of 2020/21.

There is an expectation that this investment will lead to over 900,000 people being referred to social prescribing schemes (DHS 2019). The way in which social prescribing has been operationalised across the UK differs significantly, resulting in an array of models and referral systems. Bickerdike et al's (2017) systematic review highlighted ambiguity about the effectiveness of social prescribing, which maybe, in part due to diversity within the implementation of social prescribing systems that are difficult to replicate, and therefore undertake research that explicates causality. For example, Kimberlee (2015) identified 4 types of social prescribing models ranging from 'sign posting' where an individual is provided with a very basic referral to a relevant organisation, through to holistic where the system is wrapped around the individual, and where all sectors involved, communicate through established partnership working. The divergent models and systems reflect the complexity of the populations needs and often co-morbid conditions experienced by people with long term ill health.

Social Prescribing: Salutogenic 'v' pathogenic model.

As a non-medical intervention (while potentially supporting compliance and efficacy of prescribed medication), social prescribing aims to promote person centred and asset-based approaches for people with diverse needs. In principle, the asset-based approach resonates with a salutogenic paradigm that views health as a positive state of well-being, rather than just 'being well' and deterring health (Antonovsky 1979). The asset-based approach used, focuses on the strengths rather than the needs of the patient and represents the antithesis of the pathogenic 'medical model'. As such, the impact of social prescribing on those with CVD, particularly those patients being discharged from hospital following cardiac care, is significant. There is scope to embed the salutogenic principles within cardiac rehabilitation to promote personalised approaches that can help reduce patient dependence and promote independence. The salutogenic model represents a social model of health that can complement the medical model and empower people with CVD to have more control, experience a good life and relinquish reliance on health care. According to Parkinson & Buttrick (2015) it is estimated that 20% of patients seeks advise from their GP for social rather than health related problems. Social prescribing can help reduce inappropriate GP & A&E attendance, for example, the Polley et al (2017) identified that on average, there were 28% less GP consultations, 24% less A&E attendance for those places where the local social prescribing service was embedded.

Types of Socially Prescribed Interventions

Several socially prescribed interventions are available, ranging from Yoga on prescription, opportunities for physical activity and even knit & natter groups. Services are typically located within the third sector and delivered by charities, local social enterprises or small businesses. One significant intervention provided across the UK and abroad, originate within the Nature, Health and Wellbeing Sector which includes a range of nature-based organisations that offer a range of evidence-based, asset- based approaches. National organisations such as The Conservation Volunteers (TCV), who run Green Gym™. Other nature-based organisations such as Social Farms & Gardens, the RHS and Thrive UK also provide nature-based interventions that promote health and wellbeing. Nature-based interventions include arranged forest

walks, volunteering with The Conservation Volunteers, Forrest schools and more structured activities using therapeutic horticulture (Howarth et al 2018).

There is evidence of the positive impacts that group-based activity in green spaces has on improving mental health, an important step in empowering people to make better life choices. Cook, Howarth & Wheater's (2019) chapter on the impact of biodiversity on wellbeing provides useful insight on the evidence base for nature- based approaches and the positive impact on mental health. Equally, TCV's Green Gym™ for example, identifies as "group-based activity with a purpose", combining the positive impacts of social cohesion (reduced isolation), physical activity and purposeful work (i.e. planting trees, improving local green spaces for community use). Working with the BBC programme *Trust me, I'm a Doctor* and University of Westminster, participants on an eight-week programme working in a London park were shown to have meaningful changes to cortisol awakening response (CAR - an important metabolic marker) and have since formed new social groups. However, it is recognised that further research is needed to support the use of CAR as a biomarker (Anderson and Wideman 2017). Participants of Green Gym also consistently report improved feelings of self-worth and optimism, both important in "enabling" a person to accept positive lifestyle messages.

In 1860, Florence Nightingale remarked "*I shall never forget the rapture of fever patients over a bright-coloured bunch of flowers…..people say the effect is on the mind. It is no such thing. The effect is on the body too".* Hence, whilst these approaches are not new, they represent innovative ways in which health and social care professionals can capitalise on the natural environment. Historically, the Victorians who first invented the public park to promote health and wellbeing (Wheater et al 2007) built hospitals with large windows, to enable a view of a vista that was thought to help an individual recover. The environment is thought to complement medical approaches (Hickman 2009), and a mere view, can help alleviate pain. For example, a seminal study by Ulrich (1984) highlighted how patients in a room with a view, received from a cholecystectomy, and required less analgesics than those without a view. Pretty et al (2005) report that there are different levels of nature including viewing, being in the presence of and then participating in nature. The latter is a more prescribed approach that can help treat or alleviate symptoms. All levels of nature can be 'socially prescribed' and can offer patients with CVD a personalised approach to weight management, reduced social isolation and improved physical activity. This year the Department for Environment, Food and Rural Affairs (DEFRA 2019) has launched the 'year of the environment', of which a significant proponent is dedicated to social prescribing with a view to working with people from all backgrounds to engage with nature to improve the environment and health & well-being.

Physiological Impact of Nature Based Interventions:

The benefits of cardiac rehabilitation (CR) participation for those with CVD are well established and include reduced cardiovascular mortality, reduced risk of hospital admissions, improved exercise capacity and health-related quality of life (Dibben et al 2018). However,

the standard gym is frequently perceived as a threatening environment (evident by the low levels of participation nationally), has a cost attached and has limited alignment with activities of daily living (ADL). Over the past several hundred thousand years we evolved with daily obligatory physical activity (PA), fluctuations in temperature and gaps in food availability. We adapted to this to a point where muscle is an important myokine system, creating a wide range of protective chemicals, naturally engineered for us as an individual, managing levels of inflammation, cognition, and many other processes (Hoffman & Weigert 2017, Kaji 2016) Therefore, where the "referral" can be a joint decision to a local place where group based meaningful activity takes place in green spaces, there is clear reason to expect similar outcomes, but with sustained change and lower cost. There is an added outcome of locally enhanced green spaces which have previously been shown to decrease antisocial behaviour and increase local levels of PA. Moreover, the impact of nature- based interventions, such as the Green Gym or Social Farms can help reduce social isolation (Howarth et al 2017). Equally, it is argued by the WHO (2017) that people who live nearer to green spaces such as parks, are more likely to use the space and improve overall physical activity which are associated with a reduction in cardiovascular disease (Richardson et al 2013).

The Significance of Social Prescribing for Cardiac Care.

According the Kitwood (1997) person centred care is predicated on personhood which is "*a standing or status that is bestowed on one human being, by another in the context of relationship and social being*". However, the medical ethicists, Pellegrino (1976) argued that *the ill become homo patiens, or a patient or a person bearing a burden or distress, pain or anxiety, a person wounded*, which ultimately, compromises the relationship dynamic between the patient and the health professional. Compounding this, it is argued that *Illness creates an alien world for its citizens. Maps of the person's previous homeland are useless for understanding and navigating the new worlds strange terrain and ones compass spins out of control*" (Hess 2003). Hence, many people, when entering hospital, particularly into an acute medical care context such as a cardiac unit, may adopt what Talcott Parsons refers to as the 'sick role'. Arguably, personhood is compromised through illness resulting in reliance on others, ambiguity about choices and loss of autonomy (Howarth 2012) - the antithesis to the ethos of personalised care. Equally, this could be further exacerbated through the way in which health professionals are governed by the Professional Regulatory Bodies and the requirement for non-maleficence and beneficence. Hence, the proliferation of the medical model to override personalised care, has taken place since the birth of the clinic and was duly observed by Foucault (1963) when he coined the term "*medical gaze*" to denote the dehumanizing medical separation of the patient's body from the patient's person (identity). Arguably, this can result in care led by 'diagnosis' and (perceived) need, rather than a persons assets, i.e. what is the matter *with them* rather than what *matters to them*. Discharging patients home provides an opportunity for the cardiac nurse to instigate a well-being conversation, to facilitate a personalised discharge with possible links to the social prescribing system through partnership and collaboration with the link worker.

The personalised approaches embedded with social prescribing provide an opportunity to dilute the medical gaze and encourage nurses to work in partnership with patients during discharge planning – and once in the community. The philosophical principles of salutogenesis focus on wellbeing rather than disease, hence present a unique opportunity for the nurse to promote wellbeing for people with CVD. By explicating an asset-based approach, nurses can work with patients to understand what matters to them (perhaps what is impeding improvement such as debt, relationship issues, no perceived opportunity to be active), and to fully facilitate an empowering approach to full independence. Antonovsky's (1979) asset-based approach help individuals to develop a sense of purpose and can help enable medicine, and wellbeing to coalesce.

Thinking Differently….Implications for Cardiology, Beginning Rehab Early

The use of nature-based interventions and other socially prescribed services offer an evidence-based potential to compliment cardiac rehabilitation through understanding and utilising 'what matters' to the patient. It is accepted that cardiac rehabilitation can help minimise further risk to the heart (Hald et al 2018), however, nature based interventions used as a social prescription can help promote a healthier , more active lifestyle and thus also be part of a pre-habilitation approaches that can influence post discharge behaviours. Equally, utilising lifestyle interventions, such as those described in this paper, in a pre-habilitation context, could help reduce post-operative complications (CR) and has been shown to reduce cardiovascular risk (Hald et al 2018). Exercise referral schemes in particular are known to have positive impact on physical activities for patients who are sedentary (Williams et al 2007), and Mythen at al (2017) report that although social prescribing is a new concept in health care, there is a need to optimise services that promote activity and wellbeing, should be considered to prevent the current public health burden and reduce peri-operative mortality and morbidity. Prehabilitative services that promote sustained increases in physical activity, can be accessed 2-4 weeks prior to surgery and still have a positive effect on post-operative outcomes (Moran et al 2016). Hence, there is potential to improve compliance and efficacy of prescribed medication by enhancing the patient's feeling of self-worth, optimism and metabolic processes (i.e. improved myokine function), while the patient is still under consultant care.

The use of non-medical approaches as a social prescription for people facing cardiac surgery – and those post-discharge, can help reduce the reported 'unmet' needs – particularly, for the older population (Kamenov et al 2018). There is scope within cardiac rehabilitation programmes, and the advice and support provided by cardiac nurses, to better utilise interventions that promote physical activity predicated on a personalised care approach. In doing so, the likelihood that the individual will comply with and make a positive behaviour change is increased. Focusing on wellbeing within the discharge conversation can help dilute the medical gaze and promote a person centred, salutogenic approach to empower patients to be more involved in shared decisions and ultimately reduce cardiac risk factors.

Conclusion

We suggest that nature-based interventions are an effective method that can be used as a social prescription to promote wellbeing. In determining 'what matters to a person', the use

of nature-based interventions can offer a personalised approach within both the prehabilitative and rehabilitative processes. Whilst the evidence base for the social prescribing processes *per se* is still developing, there is a consistent message emerging from the nature-based literature that people with CVD could benefit from being outdoors and engaging with nature. The NHSE Long Term Plan offers nursing a unique opportunity to integrate the Personalised approach to care, to enable salutogenic principles to compliment traditional pathogenic approaches fort the benefit of the person.

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