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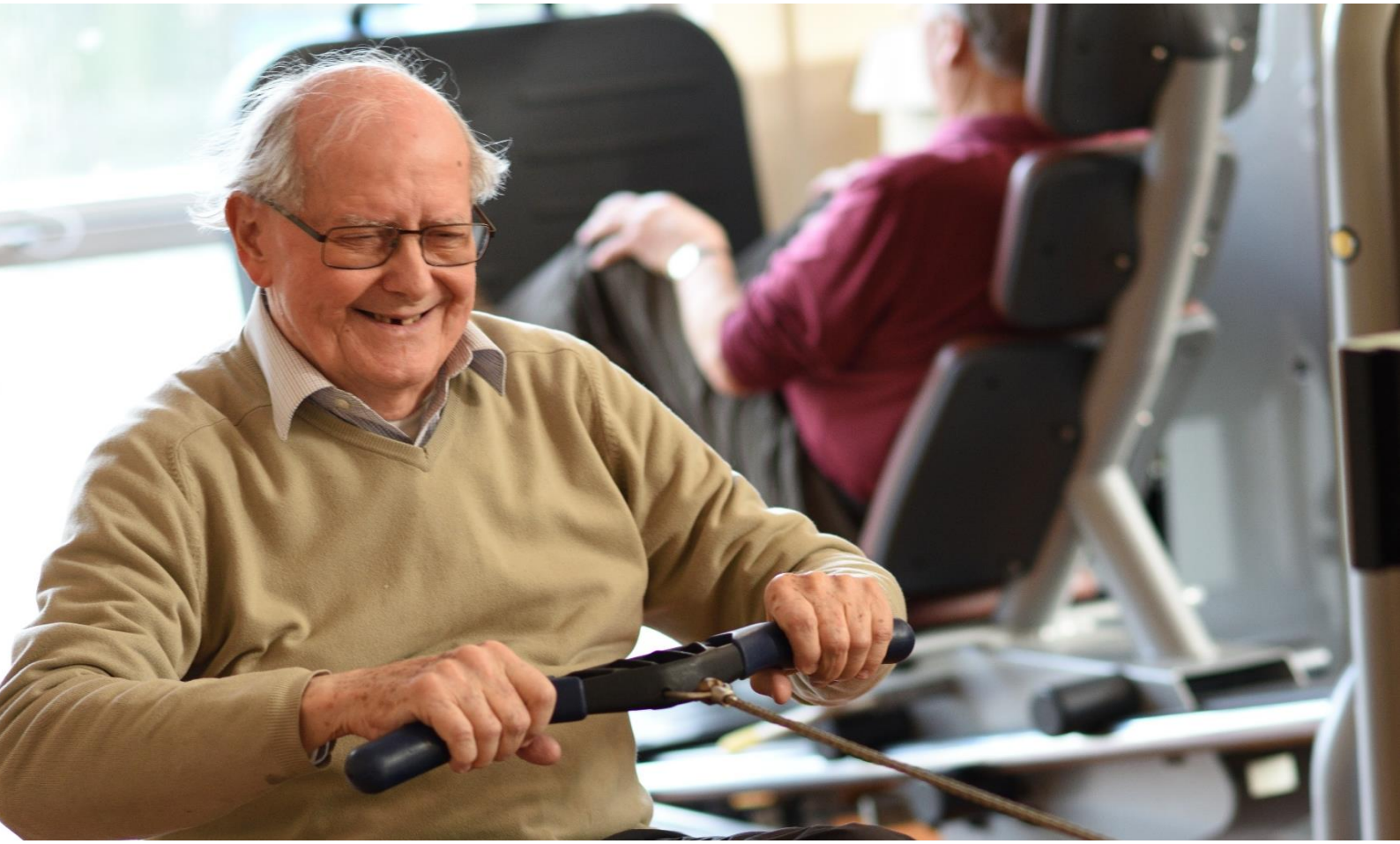

Delivering effective, networked social prescribing services

Desktop review: focus on non-medical, patient-focused Additional Roles Reimbursement Scheme (ARRS) roles related to social prescribing and their impact

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Executive Summary

Social Prescribing is a way of connecting patients to practical, community-based support, including access to advice on employment, housing and debt, as a means of addressing their social, health or economic needs, and promoting well-being and independence. The prescription can take many forms, depending on the community and resources available, and patients' needs.

Social prescribing using primary care-based link workers is increasingly promoted in the UK[1]. Despite a high level of support from policymakers, high-quality evidence on the effectiveness of the link worker model of social prescribing is scarce[2]. There is also limited knowledge on how best to implement the link worker approach so that link workers can be embedded and integrated into primary care settings to maximise their effectiveness and sustainability[3].

Implementing social prescribing and link workers within primary care at scale is unlikely to be a 'quick fix' not a panacea for mitigating health inequalities in deprived areas, but is a credible intervention for healthcare professionals and patients, and emerging evidence is promising (although complicated to capture in an empirically pure methodology).

Aims of this paper

The desktop review summarises the evidence of impact of three patient focused, non-medical Additional Roles Reimbursement Scheme (ARRS) roles. The three roles identified were;

1) Care Coordinators;
2) Social Prescribing Link Workers;
3) Health and Wellbeing Coaches

Due to the distinct lack of evaluations of Health and Wellbeing Coaching and the Care Coordinator roles in the context of supporting patients in primary care, and the fact that these are relatively new roles, this desktop review focused on the Social Prescribing Link Worker role.

[1] Local Government Association 2016, Public Health Wales, 2018 Scottish Parliament Health and Sports Committee, 2019; Department of Health NI, 2017
[2] Bickerdike *et al,* 2017; Mossabir *et al,* 2015; Gottleib *et al,* 2017; Husk *et al*, 2019; Mercer *et al*, 2019
[3] Gottlieb *et al,* 2018; Pescheny *et al,* 2018

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Desktop review methodology

The search strategy and review methodology is fully documented in appendix one.

One hundred and thirty-nine separate publications were reviewed. Of these twelve were systematic reviews (2015-2021) of previous SP studies conducted over the past fifteen years**,** seven were scoping reviews of the literature on SP all of which had been undertaken within the past six years, three provided research protocols for evaluations that are currently underway, and twenty-two were case study reports of SP initiatives across the UK published between 2011-2021.

Ten papers included in the review provided detailed qualitative evaluation reports of social prescribing initiatives, thirteen on cost implications and outcomes of SP and fifteen papers had a policy focus. The remaining publications focused on data modelling, theoretical underpinnings of SP and presenting logic models.

There was a distinct lack of evaluations of Health and Wellbeing Coaching and the Care Coordinator roles in the context of supporting patients in primary care. Papers that related to health and wellbeing coaching focused on sports performance and wellbeing were excluded. They tended to have a focus on functional movement for cyclists and swimmers or on how the use of Artificial Intelligence (AI) could enhance health and wellbeing coaching.

Additional search terms were used to see if more focused papers could be generated by exploring health promotion, self-care and health behaviours literature but yielded nothing that could be helpful to this review. Tierney *et al*. (2021) are currently undertaking an NIHR funded study to explore the Link Worker role recognising the gaps and challenges associated with its implementation.

What do we mean by Social Prescribing?

The Institute for Social Prescribing (SP) defines SP as "*a process that enables healthcare professionals to introduce people to a range of practical, social and emotional support to boost their health and wellbeing.*" The literature identifies a wide range of issues with clarity around the definition and it is used interchangeably with terms such as *community connecting*, *care navigating* or other similar terms. **Whatever terminology is used, at its heart SP is about person-centred relationships** – between patients, their carers and the professionals that support them, and between the organisations in the places we live and work. **When these relationships work well, social prescribing builds resilience – in individuals, in the health and care workforce and in communities**. NHS England describes social prescribing as "*a way for local agencies to refer people to a link worker. Link workers give people time, focusing on 'what matters to me' and taking a holistic approach to people's health and wellbeing. They connect people to community groups and statutory services for practical and emotional support*." **SP models of delivery differ significantly across the UK** in relation to the actual activities offered (health, social and economic), and with regard to the level of support given to patients following referral (Moffatt *et al.*, 2017).

SP aims to address social determinants of health. Psychosocial problems, such as debt, housing concerns, social isolation, domestic abuse, family problems, grief, and loss, can impact peoples' mental and physical health, wellbeing, and self-care. (Morris *et al* 2011; Manchester Alliance for Community Care 2010; Marmot *et al*., 2010). It is estimated that 20% of GP appointments have a social element (Parkinson and Buttrick 2015; Matthews-King, 2016) but GP capacity to address social problems that precipitate and perpetuate ill health are often limited (Popay *et al. 2007; Law Commission 2015*).

SP is a way of connecting patients to practical, community-based support, including access to advice on employment, housing and debt (NHS England, 2016a), as a means of addressing their social, health or economic needs, and promoting well-being and independence. **The prescription can take many forms, depending on the community and resources available, and patients' needs**. It may include a knitting circle, walking group, bereavement support group, or volunteering. In this way, it is also seen as a way of improving the integration of health and social care, improving patients' experience (Wilson and Booth, 2015) and reducing demand on primary and acute care service, as well as contributing to other government objectives in relation to employment, volunteering and learning (The King's Fund, 2018).

Summary and observations from the review

Recent evaluations of UK-based SP interventions are concerned with schemes that employ link workers or community navigators to signpost participants to community-based activities. The most frequently cited recent literature reviews on SP suggest that the evidence base is less well developed than UK policy documents may imply to support these assumptions. **The evidence base is still small, inconclusive and weak** (Bickerdike *et al.*, 2017; Moffatt *et al.,* 2017; Polley *et al.,* 2017). Many **studies are small scale, do not have a control group, focus on progress rather than outcomes, or relate to individual interventions rather than the social prescribing model**. Much of the evidence available is qualitative and **relies on self-reported outcomes** (The Kings Fund, 2018). There are **difficulties in conceptualising what social prescribing is** and what good evidence for a complex SP service might look like (Husk *et al*., 2019)

Although studies of SP generally showed positive results, with reports of improvements in health and well-being outcomes, some reductions in the use of primary and acute health care and a reduction in costs to the NHS or wider system, many results were not clinically or statistically significant and at a high risk of bias. Moffatt *et al.*'s review (2017) concluded that they had found little or no evidence of sustainable impact on physical health, patient activation, impact on frailty or use of outpatient, community and social care services or their associated costs.

The most rigorous systematic review of social prescribing (Bickerdike *et al.* 2017) included only 15 studies, of which only one was a randomised controlled trial, and this was conducted over 20 years ago (Grant *et al.* 2000). This review found the evidence to be of low quality, though most studies were positive about SP. Later descriptive reviews have reached similar conclusions (Chatterjee *et al.*, 2018; Pescheny *et al.*, 2018). A recent systematic review by Husk *et al*., (2020) explored the process of social prescribing synthesizing findings from 109 studies. This review highlighted the importance of context and capacity, but also that SP should be developed in line with complex intervention and behaviour change approaches. It is recognised that further high-quality research is required (Public Health England 2015; National Institute for Health and Care Excellence 2016), but approaches that shift the focus from individual to community wellbeing must be informed by relevant theory.

In Bickerdike *et a*l's systematic review (2017) only 15 studies were identified with some form of link-worker and these were limited by poor design and reporting (such as small numbers, lack of controls, use of validated measures, short follow-up) and encompassed a mix of delivery models, making them difficult to compare or synthesise (Social Prescribing Network, 2016). Furthermore, many studies failed to disentangle the processes of programme enrolment from the nature of link-worker engagement and adherence to referred activities (Husk *et al.*, 2016) when evaluating effectiveness, making it difficult to attribute causality to these differing components of SP (Husk *et al.*,2019).

A rationale for Social Prescribing

The need for social prescriptions in the current health and care sector is clear; 84% of general practitioners say they have an unmanageable workload (NHSE 2019 a, b, c, d) and approximately 20% of patients go to their general practitioner for primarily social problems (Jani and Gray 2019, Low Commission 2015).

Social prescriptions seem to be largely accepted by GPs in England as a possible intervention for their patients with 80% saying that social prescriptions should be available from general practitioner surgeries (The Work Foundation, 2017) and 59% acknowledging that social prescriptions could reduce workload (RCGP, 2018).

The use of social prescriptions is also on the rise. NHS England recently issued national guidance to support the more active rollout of social prescriptions nationally to build on the nearly 69,000 social prescriptions referrals in 2017/2018 (NHSE, 2019 d, e). However, the uptake and spread by commissioners, clinicians and patients have been limited and heterogeneous as evidenced by a recent analysis that shows that in London alone, there were approximately 250,000 patients who could have benefited from a social prescription but did not receive one – something that could have resulted in £90 million in savings to the NHS (Polley *et al.,* 2017).

If utilised properly, social prescriptions could help to deliver value-based primary care (Watson *et al.* 2017) by improving patient and population-level outcomes while optimising resource utilisation by:

i) **Addressing social determinants of health:** Reducing reliance on the biomedical model while also giving a route for health and care systems to address social determinants of health.
ii) **Promoting self-care:** Working with individuals with long-term physical and mental health conditions so they can build the knowledge, skills and confidence to manage their condition.
iii) **Creating jobs:** Because social prescriptions are largely delivered locally, their active use can help to support job creation by funnelling resources to local voluntary, community and social enterprises.
iv) **Building stronger communities:** The delivery of social prescriptions necessitates that the health and care sector must identify and actively work with and support local community assets, which will in turn help to establish and deepen community connections. (NHSE, 2019e).

Although a robust evidence base is lacking (Bickerdike *et al*., 2017) data is emerging that demonstrates positive effects on individuals through improvements in quality of life and emotional wellbeing as well as improvements in the use of primary care and other health services including: (NHSE 2019 e, Polley *et al.*, 2017).

- An average 28% reduction (range: 2–70%) reduction in demand for general practitioner services.

- An average 24% reduction (range 8–26.8%) in Accident and Emergency attendances.
- An average Social Return on Investment of £2.3 per £1 invested in the first year (Polley *et al*., 2017; Jani and Gray, 2019).

Personalised care roles as defined within the literature

There are a variety of roles such as: social prescribers, link workers, care coordinators, health advisers, health trainers, community navigators, well-being coordinators, care navigators, wellbeing coaches and health coaches. Tierney *et al*., (2019) conducted a survey to determine how care navigation is interpreted and implemented by CCGs in England. 90% of CCGs (n=147) had some form of care navigation running in their area but a total of 75 different titles were used to describe the role. SP can range from simple signposting to a non-medical local service or community group by a GP or member of the primary care team, to referral to a link worker. The link worker helps to determine the person's needs and connect them to an appropriate local service or resource (Kimberlee 2015; Husk *et al.*, 2016; Social Prescribing Network, 2016).

Descriptions of different personalised care roles

Role	Descriptor	Source
Health and wellbeing coach	Health and wellbeing coaches predominately use health coaching skills to support people with lower levels of patient activation to develop the knowledge, skills, and confidence to manage their health and wellbeing, whilst increasing their ability to access and utilise community support offers. They may also provide access to self-management education, peer support, and social prescribing.	https://www.healthierfutures.co.uk/primary-care-workforce/clinical/health-and-wellbeing-coach
Care Coordinators	Care coordinators provide extra time, capacity, and expertise to support patients in preparing for or in following-up clinical conversations they have with primary care professionals. They will work closely with the GPs and other primary care professionals within the PCN to identify and manage a caseload of identified patients, making sure that appropriate support is made available to them and their carers, and ensuring that their changing needs are addressed. They focus delivery of the comprehensive model to reflect local priorities, health inequalities or population health management risk stratification.	https://www.healthierfutures.co.uk/primary-care-workforce/clinical/care-co-ordinator
SP link worker (also referred to as care navigators[4]	Usually undertaken by practice receptionist staff or practice managers as an enhancement to their existing roles, with 'active signposting' as the foundation of the role. The role aims to achieve several goals: to free up GP consultations; make the most appropriate use of the non-GP workforce; increase receptionists' job satisfaction; and make it easier for patients who require a GP appointment to access one.	NHSE b, 2017

What they all have in common is their personalised coaching approach to support people's motivation for positive behaviour change. Health coaching skills enables social prescribers to hold conversations that engage people so that not only do they talk about what's important to them, increase their sense of resourcefulness and are motivated to change their behaviour. Skills in health coaching enable practitioners to have conversations with people that support them to take greater control of their own health and wellbeing. However, currently the evidence base for the impact of the personalised care roles outlined in this project is thin and emergent.

Models of Social Prescribing as defined within the literature

Pescheny *et al.* (2018) in a systematic review of facilitators and barriers to implementing SP services identify six SP models:

[4] While distinctions are made between SP link workers and receptionists undertaking CN there can be an overlap in the literature there is often the use of different titles in different settings/locations (Hamilton-West *et al.*, 2020). Currently whilst there is a national workforce competency framework for care navigators, at the time of writing this report there is no parallel frameworks for link workers, care coordinators or health and wellbeing coaches.

Model 1: Information service
This service is an information-only service, with advertising and directory access to SP in a primary care practice.
Model 2: Information service and telephone line
This service advertises SP on leaflets and notice boards in a primary care practice. Based on this information, patients can self-initiate a telephone discussion with a worker.
Model 3: Primary care referral
Primary health care professionals assess patients during consultation and refer them to SP services if appropriate, for example if patients have non-clinical issues and require psychosocial support. Referrals to SP services are opportunistic.
Model 4: Practice-based generic referral worker
Primary care patients can be referred by health workers or self-refer to an SP link worker. Clinics are held in the GP surgery, so that it can act as a "one-stop-shop".
Model 5: Practice-based specialist referral worker
A specialist worker works from primary care practice and patients can be referred through primary care referral or self-referral. Direct advice and specific services, such as Citizens Advice, may be offered, as well as referral or signposting onwards.
Model 6: Non-primary care based referral worker
Patients are referred to an external referral centre by primary care practice staff, offering one-to-one facilitation, for example an outreach service or set in the community.

Most models have three key elements:

Referral: A General Practitioner (GP), nurse or other health professional refers the patient to, typically, a link worker. Referrals can also be made by pharmacists, social care or local authority staff, and by other voluntary and community sector (VCS) services. Many schemes welcome referrals from community outreach and engagement workers too, and self-referrals and recommendations from family and friends may also be possible. The referral recognises that someone has underlying issues and would benefit from a different kind of intervention in addition to, or instead of, medical treatment.

Prescription: Working with the patient, the link worker identifies activities or services that can improve their health, wellbeing or personal situation. This is more than just signposting. There is a genuine partnership between the individual and the link worker: building rapport, exploring interests and barriers, and connecting patients with activities and services that build on their potential.

Activities: The individual takes part in "prescribed" activities and services, mostly provided by the local VCS. These vary from one-off activities and individual support to open ended specialist support services.

In addition to these six models, Kimberlee *et al.* (2014, 2015) identify that link workers roles can also vary from 'light-touch' (referring people to community assets, typically

voluntary transport, befriending, advocacy services) to 'holistic'- a more instrumental, person-centred approach that engages the individual to identify their needs, set well-being goals, and provide practice and emotional support to address these over a period of time, typically three months. The 'light-touch' approach (typically reported in UK studies), could increase dependency on primary care for addressing social problems and welfare needs (Cawston 2011), The 'holistic' model aims to improve a patient's self-efficacy and capacity to maintain or improve their health and well-being over the longer term. The key aspect of any social prescribing programme is this interaction between the link worker and the individual (or a carer) over the course of one's programme participation. This interaction distinguishes social prescribing from other community-based approaches to health promotion and disease prevention (Bickerdike *et al.* 2017). It is clear from the literature, that as of yet, different SP models exist. It is likely, that different models face different challenges during the implementation process and delivery of the service, due to the involvement of different pathways, organisations, and stakeholders.

NHSE Summary Guide for A Good Social Prescribing Model should

- See a person as a person, connecting them to practical and emotional support
- Recognise the needs of different parts of the local community – including having a specific offer for young people
- Support referrals from all local agencies (including GP, local authority, pharmacies, fire service, police, job centres, VCSE and self-referral)
- Commission VCSE services to receive referrals and deliver services.
- Be locally and collaboratively commissioned by partnerships of PCNs, CCG and LA commissioners, working with VCSE and people/family/carers
- Help to build a better voluntary and community sector, by identifying gaps in local provision and finding creative ways of encouraging (and funding!) community development alongside local commissioners and partners
- Involve VCSE from the start, ensuring ongoing support for community groups and organisations to help them to safely and sustainably manage referrals – this might mean supporting them with funding in the long term

*NHSE Summary Guide 2019 b

Characteristics of Social Prescribing schemes as defined within the literature

Morris *et al.,* (2020) conducted a systematic review of studies that described the characteristics of SP scheme. Of the 29 evaluations included in the review, the majority related to general social prescribing schemes/initiatives/programmes (69%) or social prescribing pilots (31%) that involved:

- Referral by a health or social care professional directly to an activity such as the arts (21%)
- Referral to a link worker or similar (79%)

Almost half of the schemes evaluated (41%) were targeted at people experiencing either social isolation, loneliness or both. The majority (59%) cited that they were targeting people who either had frequent primary or secondary healthcare presentations or had presented with some form of non-clinical need, such as support for self-management. Just over half of the evaluations (52%) stated they were targeting people with one or more long-term conditions. A total of 41% of the schemes involved the production of a personalised Wellbeing Plan, co-produced with service users to help them achieve their goals. Of those schemes that specifically mentioned a target age group, most were for those over 18, although some were for older people. Most of the schemes evaluated were England-specific (83%) and, of those, almost 30% were from Greater London.

Facilitators and barriers to implementing Social Prescribing services as identified within the literature

Previous research found that several common facilitators and barriers emerged across integrated care pilots in the UK (RAND Europe 2012, Ling *et al.,* 2012). Factors that appeared to be particularly relevant for integrated care include the existence of training for new staff, staff stability, physician involvement, and information technology systems (RAND Europe, 2012). In addition, many of the barriers and facilitators to the implementation of integrated care pilots were found to be those of any large-scale organisational change. Examples of such factors include quality of leadership at the top and within groups, flexibility of organisational culture, and the availability of resources.

Pescheny *et al.,* (2018) conducted a systematic literature review of studies assessing SP services based in general practice and involving a navigator role to identify the facilitators and barriers to implementing SP services in England. In total, the included studies comprised of one conference report (Polley *et al.* 2016) and seven evaluation reports (Brandling *et al.* 2011; ESRC 2013; Farenden *et al.,* 2012; The Health Foundation 2014; Age UK undated, Dayson, Bashir and Pearson 2013). Based on these studies the review identified 7 key facilitators for successful implementation as follows:

i) Implementation approach

Applying a phased rollout approach to implement SP interventions, i.e., changes are made over a period of time with a scheduled plan of steps. It has the potential to support the development of new and effective partnerships between GP surgeries, navigators, and the third sector and allows time to develop a shared understanding of the programme and expectations between involved partners. It is important to plan a realistic 'lead in' time for setting up SP services, considering that it can take several weeks to set up initial meetings with GP practices.

ii) Organisation and management

Organising a series of workshops to design and discuss an SP service prior to its implementation and standardised training for involved partners, briefings, and networking events to share best practice were identified as facilitators to implementation and delivery of SP services.

iii) Shared understanding and attitudes

Shared understanding among clinical and non-clinical staff of what can be expected by each partner, the scope of the SP service, which patients to refer, how patients can be helped, and the capacity and skills offered by a navigator facilitates the implementation and delivery of SP services. Shared understanding between partners from different sectors, commissioners, service users, and stakeholders, is crucial to manage expectations and to prevent tensions and disappointment during the implementation and delivery of SP services.

iv) Relationships and communication

Creating new relationships between partners based on reciprocity and trust may facilitate the implementation and delivery of SP services. A good relationship

between navigators and other partners (i.e., general practice staff and service providers), is particularly important, as it promotes effective communication. Feedback on service users' journeys and outcomes to GPs and practice staff, via the navigator e.g., during regular meetings or a short periodic report, helps general practice staff to understand how patients progress after their referral. In addition, structured contact and regular communication between navigators and practice staff served as a reminder for SP, encouraged a higher number of referrals, and ensured greater appropriateness of referrals.

v) Organisational readiness

Lessons learnt from the SP pilot in Brighton and Hove show that general practices need to be 'Navigator ready' before a navigator can start to work in a practice. The following is recommended by Farenden *et al.* (2012) for a GP surgery to become 'Navigator ready':

1. It is important that the SP team meets the whole practice team (clinical and non-clinical staff) before SP commences. This could happen during a training session or practice meeting. The SP team should ensure they work flexibly when arranging a visit.
2. A partnership agreement needs to be signed between the SP service and the GP surgery hosting it.
3. GPs agree to make regular referrals to the SP service. Numbers depend on navigators' capacity.
4. Navigators should be treated as a member of the primary care staff team. To ensure this happens, surgery staff need to understand the scope of the SP

programme and the navigator's role and skills, provide a room for the navigator, which are accessible for patients and allow meetings without interruptions, clarify how and when the navigator can contact the GP directly, and provide a lead staff member who can answer queries in relation to surgery systems and communications.

'Navigator ready' practices are crucial to facilitate the implementation of SP and to ensure that an effective and equitable service is delivered to service users (Farenden *et al*.,2012). A key lesson learnt from the SP programme in Maryfield is that GPs are more likely to make regular referrals to SP when the practice culture supports holistic and psychosocial approaches (The Health Foundation, 2014). Moving away from the biomedical model of health towards a biopsychosocial model of health, considering alternatives to traditional medical interventions, and addressing wider determinants of health, i.e., considering social, psychological, and environmental determinants of health instead of focusing solely on medical needs, facilitate the implementation and delivery of SP services (The Health Foundation, 2014).

vi) General practice staff engagement

Health professionals and practice staff engagement involving regular referrals to SP, is a facilitator and crucial for the implementation and delivery of SP services. Strategies that may encourage and maintain engagement of health professionals include feedback letters from navigators to prescribers, regular education events and training sessions, encouraging navigator attendance at surgery staff meetings, having information stalls within practice reception areas, and a brief and easy-to-complete referral form to reduce the workload for prescribers. Having SP champions based in general practice and Clinical Commissioning Groups (CCGs), fosters support, encourages regular referrals to the SP service, raises the profile, and perceived value of SP among general practice staff [28, 31, 34]. Support and supervision. The support of the practice manager is vital for arranging meetings with GPs, to build relationships between the SP team and the general practice, and to increase awareness about SP during the ' lead in' time, implementation, and delivery. A supportive structure for

navigators can facilitate the implementation and delivery of SP services; however, a diverse nature of the support structure may require the adherence to multiple different interests which may have felt conflicting for navigators at sometimes. A framework for the support that should be provided by navigators, facilitates the consistent delivery of SP services.

Finally, the review by Pescheney *et al.,* (2018) identified

vii) Infrastructure

A wide range of good quality third sector based services and activities, that are easily accessible with public transport, facilitate the implementation and delivery of SP services.

In a process evaluation published in 2021 Chng *et al*., found that successful implementation of SP programmes was associated with GP buy-in, collaborative leadership, good team dynamics, link worker support, and the absence of competing innovations. The study was the Deep End project evaluating the community link workers of seven GP practices in deprived areas of Glasgow over a 2 year period. They concluded that even in a well-resourced government-funded programme, the majority of practices involved had not fully integrated the link worker programme within the first 2 years.

Implementing social prescribing and link workers within primary care at scale is unlikely to be a 'quick fix' for mitigating health inequalities in deprived areas (Chng *et al*. 2021).

Service user perceptions of patient-focused, non-medical ARRS roles

Moffatt *et al*. (2017) undertook a qualitative evaluation of service user perceptions of the Link Worker social prescribing role in improving health and well-being for people with long-term conditions. The study was conducted in an inner-city area of West Newcastle Upon Tyne ranked 40th most socio-economically deprived in England. The intervention was a Link Worker social prescribing programme comprising personalised support to identify meaningful health and wellness goals, ongoing support to achieve agreed objectives and linkage into appropriate community services. Thirty adults with multimorbidity (mental health problems, low self-confidence and social isolation) and all adversely affected physically, emotionally and socially by their health problems. The intervention engendered feelings of control and self-confidence, reduced social isolation and had a positive impact on health-related behaviours including weight loss, healthier eating and increased physical activity. Management of long-term conditions and mental health in the face of multimorbidity improved and participants reported greater resilience and more effective problem-solving strategies. They concluded that tackling complex and long-term health problems requires an extensive holistic approach not possible in routine primary care. This model of social prescribing, which takes into account physical and mental health, and social and economic issues, was successful for patients who engaged with the service. Future research on a larger scale is required to assess when and for whom social prescribing is clinically effective and cost-effective.

Most importantly, it is the quality of this relationship that is argued to be the reason for choosing social prescribing as the person-centred approach to use and is cited as a key reason for some of the social prescribing programme successes (Wildman *et al.*, 2019; Hanlon *et al.,* 2019). Key elements of this relationship are an open, trusting, non-judgemental, long-term, person-centred relationship, whereby the link-worker acts as a flexible coach, facilitator and patient advocate for support and personal change (Moffatt *et al.*, 2017; Polley *et al.* 2017).

Effectiveness of Social Prescribing on patient outcomes

Much of the existing literature on SP focuses on whether it is effective or not in terms of patient outcomes, including its capacity to contribute to the reduction of deep-seated inequalities (Mackenzie, Skivington and Fergi, 2020; Bickerdike *et al*.,2017; Mossair *et al.,* 2015; Chatterjee *et al.,* 2017). However, there is both limited evidence of effectiveness (and cost-effectiveness) and a limited number of high-quality quantitative studies with suitable control groups (Local Government Association 2016; Public Health Wales, 2018, Scottish Parliament 2019; Department of Health NI 2017). There is also a significant knowledge gap regarding the process of implementation (Gottlieb *et al.,* 2018; Moore *et al.,* 2015; Chatterjee *et al.,* 2017).

Elston *et al*., (2019) undertook a before-and-after study to evaluate the impact of a 12-week holistic link-worker intervention on people over 50 years old with multiple long-term conditions, as part of an SP programme in South Devon. Most users achieved all their living-well goals set with Co-ordinators and showed a statistically significant, meaningful change in their health and social care outcomes over the following 12 weeks. The largest mean change was in the Outcomes Star™, which given the magnitude is likely to have increased scores on most of its seven dimensions (such as looking after yourself, social participation and feeling positive). This was corroborated by an increase in WEMWBS, indicating improvements in people's functioning, social relationships, sense of purpose as well as feelings of well-being and happiness (Fat *et al.*, 2017). These changes were supported by many qualitative case studies that documented significant changes to peoples' lives socially, physically and mentally, brought about by working with co-ordinators to address their social, physical and economic needs. However, these positive changes were not accompanied by a uniform decrease in health and social care use. Although just under half of the cohort saw a decrease or no change in activity, on average there was an overall increase in activity and costs, significant for in-patient, community and social care services. A significant proportion of this increase was accounted for by a rapid, escalation in morbidity and frailty in just over a dozen people. Given that most of this elderly cohort were referred by intermediate care, a rapid deterioration in health might not be unexpected. Elston *et al*., (2019) concluded their primary findings emphasise the importance of better understanding the types of people who would benefit most from SP. They infer that their results suggest that the majority of older people over 50 with long-term conditions stand to benefit from holistic SP irrespective of age, sex and levels of activation and frailty, including the frail elderly.

A systematic review of 51 studies by Vidovic *et al*., (2021) looked at SP initiatives conducted between 2014 and 2020 concerned with studies that examine the impact of social prescribing on four key concepts: loneliness, social isolation, well-being, and connectedness. The review by Vidovic *et al.,* (2021) identified *impact on the system* as the second most common level of impact identified, with studies on health care usage accounting for the majority of the 22 studies in this category. Most of the studies examine self-reported healthcare accident and emergency (A&E) visits and hospital admissions. Following SP programme implementation, eight studies reported a

reduction in health care appointments. Nine reported reduced A&E attendance and seven found reduced hospital admissions. Other studies report changes in the number of outpatient appointments, cost savings and effectiveness of referral pathways and hospital discharge rates. Only one of the studies was able to causally link social prescribing to a reduction in costs of social care (Elston *et al.,* 2019). Three other studies offer insight into the pathways through which impact can be achieved, the challenges social prescribing programmes are likely to face, and the views of health professionals on the value of social prescribing in reducing the demand on health care services (Whitelaw et al., 2017; Farenden *et al.,* 2015; Kellezi *et al*.,2019). They conclude that given the lack of conceptual and methodological clarity, future studies should focus on building and expanding theoretical frameworks and developing measures that could be used to capture the impact of a social prescribing intervention on a community.

A study by Polley *et al*.,(2019) aimed to investigate and collate all the outcomes that are being experienced in link worker-based social prescribing schemes. They concluded that the data from their study has clearly identified that social prescribing operates in a complex interconnected way, as opposed to a linear way associated with a biomedical and pharmaceutical paradigm. This complexity requires a holistic approach to be adopted by link workers to ensure a person's needs are fully met – in essence, a paradigm shift. Whilst a degree of measuring and monitoring of outcomes was seen as necessary, link workers noted that using an outcome measure in the consultation could at times be inappropriate and that referral reasons were not always the issue prioritised as in need of immediate support by the service users. All of these points raise the need to be pragmatic and flexible about approaches to data collection, measurement and monitoring. The relationship between the individual and the community was seen as crucial in the social prescribing journey. Many stakeholders explained how social prescribing supported the capacity to make connections and the number of human connections made. This led to more engagement in VCSE based organisations and improved wellbeing by service users. They recommend that as social prescribing is scaled up, the broad range of outcomes identified by stakeholders would map more appropriately onto a community capitals framework (Flora and Flora, 2013; Parsfield et al., 2015; Roseland 2012). This would enable the interconnected elements required to create sustainable communities to be incorporated and valued in research studies, particularly where the economic value of social prescribing is being determined at scale. Without sustainable communities and a VCSE sector that is appropriately and fairly valued for the contribution it makes, social prescribing at scale is at risk of failing.

Cost-Effectiveness of Social Prescribing programmes

From 2017, £45 million was made available over five years to Clinical Commissioning Groups (CCGs) to train receptionists and clerical staff to undertake enhanced roles in active signposting, by becoming CNs, and managing clinical correspondence (NHSE b, 2017). Whether the CN role is meeting these expressed aims is currently unclear. One small-scale peer reviewed study (Siddiqui *et al.,* 2017) and two case studies (NHSE, 2017a) suggest that care navigation can reduce the number of 'potentially avoidable'

(Siddiqui *et al.* 2017) or 'inappropriate' (NHSE,b 2017) GP appointments carried out by practices. For example, over a 7-month period, care navigation was calculated to have saved 1,685 GP appointments across an area in the North of England (NHSE,b 2017). Other evidence suggests that the signposting of patients who are judged not to require a GP appointment to allied health professionals, non-medical staff or alternative services has the potential to improve patients' access to care and enable their problems to be resolved more quickly (Siddiqui *et al*., 2017). However, more robust outcomes evidence is needed to see how the role is impacting the wider primary care system.

Polley *et al* .,(2017) undertook a systematic review of SP on health care demand and cost implications. They reviewed 14 papers which met their inclusion criteria. Seven papers looked at the effect on demand for General Practice, reporting an average 28% reduction in demand for GP services following referral. Results ranged from 2% (Kimberlee *et al.*, 2014) to 70% (Longwill, 2014). Five studies (Kimberlee, 2016; Dayson and Bashir, 2014; Bertotti *et al.*, 2015; Farenden *et al*., 2015; Kimberlee *et al.,* 2014) looked at the effect on Accident and Emergency (A&E) attendances reporting an average 24% fall in attendance following referral. Results ranged from 8% (Kimberlee *et al*., 2014) to 26.8% (Farenden *et al*, 2015). Five studies looked at the effect on demand for other secondary care services (Palmer *et al.,* 2017; Kimberlee, 2016; Dayson and Bashir, 2014; Farenden *et al.,* 2015; Brandling *et al.,* 2011). Three reported a fall in emergency hospital admissions in the months following referral (6% (Kimberlee, 2016), 7% (Dayson and Bashir, 2014) and 33.6% (Farenden *et al.,* 2015) and two studies measured secondary care referrals after social prescribing. One reported statistically significant drops in secondary care referrals at 12 months (55%) and 18 months (64%) (Brandling *et al.,* 2011) and the other projected reductions in demand of 0.1 consultant psychiatrists per annum per patient and 0.2 Community Mental Health Team nurse consultations per annum per patient (Longwill, 2014). However, in contrast, one study showed that the likelihood of referral to secondary mental health care more than doubled after referral (Grayer *et al*., 2008).

Eight studies calculated value for money assessments such as cost-benefit analysis (Burgess, 2014; Windle *et al*., 2016). None of the studies used the traditional cost-effectiveness or full cost-utility analysis. Estimates varied widely from an annual Return on Investment (ROI) of 0.11 (in the first year of operations) (Dayson and Bashir, 2014) to 0.43 (Kimberlee, 2016). The randomised controlled trial reported higher cost of care per patient in the intervention group than the control, though no value for money assessments were calculated (Grant *et al.,* 2000).

Four studies carried out broader Social Return on Investment (SROI) calculations. SROI puts an estimated monetary value on the sum of benefits accruing to all stakeholders, not just the NHS. Studies varied in the combination of stakeholders and benefits selected for inclusion in SROI calculations. Patients, Local Authorities (LAs) and the Department of Work and Pensions (DWP) were commonly cited stakeholders. Improved mental wellbeing outcomes and higher rates of employment were examples of positive

externalities considered in SROI but excluded from ROI analysis. The mean SROI (Weld *et al.,* 2015) was £2.3 per £1 invested in the first year (Kimberlee, 2016).

Polley et al. (2017) concluded that the evidence for social prescribing is broadly supportive of its potential to reduce demand for primary and secondary care. The quality of that evidence is weak, however, and without further evaluation, it would be premature to conclude that a proof of concept for demand reduction had been established. Similarly, the evidence that social prescribing delivers cost savings to the health service over and above operating costs is encouraging but by no means proven or fully quantified. Link worker social prescribing schemes often include several interventions, some of which are evidence-based and some of which are not. The success or otherwise of a link worker model will depend on the combined success of each intervention. It may be disingenuous, therefore, to conclude that paucity of evidence to support the effectiveness of a link worker model implies paucity of evidence for individual interventions. These interventions may still be worthwhile uses of healthcare resources and this could explain their persistence and growth in the UK. Equally, paucity of evidence to support the link worker model should not preclude further evaluation of it. It is more challenging to gain the standard of evidence for complex interventions than is routinely expected of simpler ones. In fact, the standard of evidence to date on the link worker social prescribing model is approximately the standard expected for a complex intervention at this stage in its development (Craig *et al*., 2008).

In an increasing proportion of projects, the cost of funding is shared with external stakeholders to the NHS (Kimberlee, 2016). Sharing the cost of social prescribing improves ROI and makes it a more affordable and worthwhile intervention for the health service to consider. It also makes sense to the non-NHS stakeholder, if sufficient benefits of social prescribing accrue to them too. Joint funding may thus make social prescribing link worker projects such as these more likely to proceed and become more embedded in local communities.

Final summary on impact

Overall, social prescribing interventions appear promising with strong political momentum and are widely accepted by healthcare professionals and patients.

There are emerging promising signs of impact for social prescribing, as Polley et al.'s 2017 review of 14 papers reported an average reduction in demand for GP services following referral of 28%. However, with a range of 2-70%, the issue with establishing causal links is apparent. With all 15 studies examined by Vidovic et al. (2021) failing to establish causal links, definitive evidence is still thin on the efficacy of social prescribing, and more needs to be done to identify why there is a such a wide range of impacts across different studies.

A similar line of reasoning applies to the cost-efficacy of social prescribing – despite the mean SROI of £2.3 per £1 spent (Kimberlee, 2016), more needs to be done to definitively identify the usefulness of social prescribing in terms of its demand-for-care, and thus cost, reduction.

In summary, implementing social prescribing and link workers within primary care at scale is unlikely to be a 'quick fix' not a panacea for mitigating health inequalities in deprived areas, but is a credible intervention for healthcare professionals and patients, and emerging evidence is promising (although complicated to capture in an empirically pure methodology).

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Appendix one: Search Strategy

The review focused on analysis of the evidence on social prescribing published over the last 10 years (2011-2021). A snowballing strategy was used to gather evidence from a broader timeline where papers were consistently referred to in recent publications[5].

Databases searched were EBSCOHost: CINAHL Complete; ASSIA (Applied SocialSciences Index& Abstracts), British Nursing Index, eBook Collection; E-Journals; MEDLINE with Full Text; Open Dissertations; PsycARTICLES; and PsycINFO. The two additional databases searched were the Web of Science Core Collection and the UK National Institute for Health and Care Excellence (NICE). EBSCOHost and Web of Science Core Collection include peer-reviewed scholarly journals published worldwide (including open access journals), as well as conference proceedings and books. NICE includes reports issued by think tanks, non-profit organisations, community health groups, and the government, as well as social science and medical journals such as *The BMJ* that have national and international reach. The databases were selected on the basis of their usage in social sciences literature (Web of Sciences, EBSCOHost) as well as social prescribing literature (NICE, CINAHL, and MEDLINE via EBSCOHost). Added to these included a search for grey literature on the Future NHS collaborative platform to capture reports published internally by research centres and shared online. The review also searched for grey literature from the Cochrane Library, Google and Google Scholar Open-Grey and reference lists for relevant studies published in peer-reviewed journals. To identify relevant evaluations in UK settings, the websites of the following organisations were searched: The Kings Fund; The Health Foundation; NESTA; Nuffield Trust; Department of Health and Social Care.

The Social Prescribing Observatory Data (RCGP) was reviewed to provide a slide deck of social prescribing referral rates across the East of England and this information was included in a slide deck. The institute for Social Prescribing and National Academy for Social Prescribing websites were also reviewed.

Search Terms

A Boolean search involving a combination of intervention and health keywords was used to explore the academic literature in the databases and grey literature.

Intervention keywords: ('social prescribing' OR 'social prescription' OR 'community navigator' OR 'link worker', OR 'social prescribing link worker' OR 'health

[5] This led to two papers being included by American authors applied to the UK context.(See Gottlieb)

and wellbeing coach' OR 'care coordinator') AND ('evaluation' OR 'intervention' OR 'trial' OR 'project' OR 'programme' OR 'initiative' OR 'scheme' OR 'case study')

Health keywords: AND ('primary health care ' OR 'primary care' OR 'primary healthcare' OR 'health' 'OR 'wellbeing' OR 'mental health' OR 'health inequalities').

To be included in the review the paper had to meet the following inclusion criteria below.

Inclusion Criteria

Identified reports and publications were screened to see if they fit the following criteria and included if they:

- Were written in English and were in the public domain
- Provided full text
- Focused on reviewing SP in the UK.
- Described an SP service or scheme that involved referral of a patient from primary care to a 'link worker' who would connect the patient with relevant non-medical interventions in the third sector
- Contained information about one or all of the three SP roles
- Reported primary data about SP
- Provided research protocols for evaluating SP, theories and logic models
- Discussed the link between SP and social determinants of health
- Measured impact and outcomes of SP interventions.
- Presented detailed systematic reviews of SP evidence in the UK.
- Reported either i) quantitative data on demand for healthcare services and/or ii) evaluation of social and economic impact of social prescribing.

Results were synthesized by identifying: (1) the extent of evidence about the three personalised care SP roles; (2) the type and quality of evidence used to demonstrate impact; and (3) the impact of social prescribing programmes that are designed to improve key outcome measures on public and preventive health challenges at the individual, system, and community levels.