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The impact of social prescribing services on service users: a systematic review of the evidence

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Background: Social prescribing initiatives are widely implemented in the UK National Health Service to integrate health and social care. Social prescribing is a service in primary care that links patients with non-medical needs to sources of support provided by the community and voluntary sector to help improve their health and wellbeing. Such programmes usually include navigators, who work with referred patients and issue onward referrals to sources of non-medical support. This systematic review aimed to assess the evidence of service user outcomes of social prescribing programmes based on primary care and involving navigators. **Methods:** We searched 11 databases, the grey literature, and the reference lists of relevant studies to identify the available evidence on the impact of social prescribing on service users. Searches were limited to literature written in English. No date restrictions were applied, and searches were conducted to June 2018. Findings were synthesized narratively, employing thematic analysis. The Mixed Methods Appraisal Tool Version 2011 was used to evaluate the methodological quality of included studies. **Results:** Sixteen studies met the inclusion criteria. The evidence base is mixed, some studies found improvements in health and wellbeing, health-related behaviours, self-concepts, feelings, social contacts and day-to-day functioning post-social prescribing, whereas others have not. The review also shows that the evaluation methodologies utilized were variable in quality. **Conclusion:** In order to assess the success of social prescribing services, more high quality and comparable evaluations need to be conducted in the future. International Prospective Register of Systematic Reviews number: CRD42017079664

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Introduction

The increasing proportion of the aging population and the resultant demographic and high prevalence of multiple long-term conditions (LTCs) present a public health challenge globally.¹ The major LTCs such as cardiovascular disease and type 2 diabetes have been demonstrably linked to life style.¹ Apart from physical ill health and complex medical needs, LTCs are often associated with increased psychosocial problems, impacting on peoples' mental and physical health and wellbeing, primary care attendance, social functioning and self-care.² Examples of psychosocial problems are social isolation, loneliness, housing issues, bereavement and poor wellbeing. However, it is clear that the relationship between psychosocial factors and health is bidirectional. Evidence that people's education, income, housing and other social issues have a major impact on their health and wellbeing is well established.³ Given this important relationship, there is growing international interest in the role of healthcare systems in addressing patients' social (i.e. non-medical) needs.⁴ Nevertheless, due to time pressure and the lack of available resources, responding to psychosocial problems can be a frustrating experience for general practitioners (GPs).⁵ The commonly available options for primary care patients presenting psychosocial problems are medical interventions, psychotherapy and counselling.⁶ Despite the potential benefits and recent policy attention, third sector support to address the psychosocial problems of primary care patients often remains underused due to existing gaps between the social and health sector. Research found that GPs rarely refer patients to local community groups or advice services, due to a lack of up-to-date knowledge of local resources.⁷

One approach to address patients' psychosocial needs in clinical settings more effectively and promote the prevention and self-management of LTC is social prescribing (SP). SP is a term used in England to describe the process of linking primary care patients with sources of non-medical support, typically provided by the third sector, to improve their health and wellbeing. A wide range of SP models exist, including various referral routes (e.g. self-referrals, referrals from health professionals), pathways, and cooperation types across the third and health sector.⁸ SP programmes are increasingly implemented across the UK and are included in policy documents, national, and local strategies, such as the London health inequality strategy, Sustainable Transformation Plans, NHS England's personalized care agenda, and the NHS Long Term Plan. Similar to SP in the UK, there are numerous international interventions aiming to address patients' non-medical needs in primary care to increase their wellbeing, promote healthy lifestyles, and enhance sustainable health improvements.^{9–12}

This review focussed on SP models in the UK based on general practice involving a navigator. In this model, general practice staff refer patients with non-medical needs to a navigator, who assesses their needs and refers, or signposts, them to sources of support within the third sector. Recognizing that simply giving information to patients about services results in low uptake, most SP schemes in the UK involve a navigator to provide personal support.¹³ Typically, the role of navigators involves: individual assessment to identify non-medical needs of service users and motivational interviewing, referring service users and helping to access non-medical sources of support, providing continuous personalized support and data collection for evaluations. Once a patient has been referred to SP, the term 'service user' is used. The intensity and frequency of support provided by navigators can vary between SP programmes. In addition, navigators can be either volunteers, or paid employees. Navigators usually have the option to refer service users to a wide range of sources of support in the third sector, including advice services (e.g. for debt, housing, and employment issues), and physical, social and creative activities.

There is evidence that SP has the potential to improve the health and wellbeing of service users, as well as their health-related behaviours.^{14–16} Beneficial changes in the ability to carry out

everyday activities, quality of life, anxiety, depression, and feelings of loneliness and social isolation were also observed.^{14,15,17} It is likely, that different SP models face different challenges during the implementation process and delivery of the service, due to the involvement of different pathways, organizations, and stakeholders. For instance, referred patients may be more likely to take up an activity when a supportive structure, i.e. a navigator, exists.¹³ Nevertheless, a limitation of most literature reviews on SP is that they did not differentiate between different SP models.^{18–20}

The objective of this review was to collect and synthesize evidence on the impact of SP services based on general practice and involving a navigator on service users, to inform policy, practice, and future research in this field.

Methods

This study is part of a larger mixed methods doctorate study (2015–18). The review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines.²¹

Search strategy and eligibility criteria

The development of the search strategy was guided by an initial review of the literature on SP, previous search strategies of related reviews and discussions among the authors. Initially, 11 electronic databases were searched from their start dates to July 2016. The searches were limited to literature written in English. No date restrictions were applied. The aforementioned searches were repeated in June 2018 (for the period between July 2016 and June 2018). Detail of the electronic databases and search strategy are provided in Supplementary file S1.

As SP is a relatively new field in the health and social care sectors, a limited number of studies are available in peer-reviewed journals. Thus, in addition to electronic databases, various sources of grey literature (Google, Google Scholar, OpenGrey) were searched. To identify evidence relevant to the UK setting, the websites of the following key organizations were searched for evaluations of SP programmes: the Kings Fund, the Health Foundation, NESTA, NICE, Nuffield Trust and the Department of Health. An initial grey literature search was conducted in June and July 2016, and repeated in June 2018. Finally, the reference lists of all relevant (included and not included) papers were searched.

In order to gather all existing evidence on service user outcomes of SP, this review was not limited to a specific study design or quality criteria. We included studies that assess SP programmes based on a primary care setting in the UK, in which primary care staff refers patients to a navigator. Any activities or interventions, usually provided by community organizations, to which the navigators referred service users as part of the SP programme, were included in the review. Any studies that met the inclusion criteria and referenced any service user outcome were included in the review. All studies that did not meet these criteria were excluded.

Selection of studies

An initial screening of titles, abstracts and summaries (if applicable) was performed by one reviewer (J.P.), with a random 25% of the sample checked by a second reviewer (Y.P.). In a second step, one reviewer (J.P.) conducted the full text assessment against the inclusion criteria, with a random 25% of the sample checked by a second reviewer (Y.P.). Any discrepancies were resolved through discussion between the first and second reviewers and, if consensus was not reached, with a third reviewer (G.R.).

Data extraction

Extracted data included the name of the first author, year of publication, details of the intervention, setting, and participants, type of

the paper (e.g. journal article, annual evaluation report), study design and service user outcomes of SP. Data extraction of the included studies was conducted by one reviewer and checked by a second reviewer, using data extraction forms tailored to the requirements of the review.

Quality assessment

The methodological quality of included studies was appraised independently by two reviewers using the Mixed Methods Appraisal Tool Version 2011 (MMAT-V 2011).²² This tool was used, as it is suitable to assess qualitative, quantitative and mixed methods studies. It contains two screening questions for all study designs, four criteria for qualitative studies or qualitative components of mixed methods studies, four criteria for four types of quantitative study designs or quantitative components of mixed methods studies, and three criteria for mixed methods components of mixed methods study designs.²² The MMAT can be used to calculate an overall quality score for studies.²² The quality of included studies and reports was assessed to ensure transparency in the process and to identify methodological limitations of previous studies, in order to improve future research in this field. As previously discussed, studies were not excluded from the review based on their quality score.

Data synthesis and analysis

Included studies used a wide range of study designs to evaluate the service user outcomes of SP. As there is no limited list of outcomes associated with SP, a wide range of service user outcomes were reported in the included studies. Hence, various quantitative tools and statistical methods were used to assess the various service user outcomes. The majority of quantitative tools were used by one study only and therefore the results could not be compared between studies. Given this significant heterogeneity, quantitative pooling (i.e. statistical meta-analysis), was not a feasible method to synthesize service user outcomes in this review. In addition, due to small sample sizes and incomplete data, studies using the same study design and outcome measure [e.g. the 14-item Warwick Edinburgh Mental Wellbeing Scale (WEMWBS)] only described data trends, preventing a statistical (meta-analytic) summary. To assess the service user outcomes of SP, we performed a narrative synthesis of the evidence, using thematic analysis. Thematic analysis allowed the categorization of data by service user outcomes and that the derived themes were reviewed and refined throughout the synthesis process.²³ The 'Guidance on the Conduct of Narrative Synthesis in Systematic Reviews' was used to advise the narrative synthesis in this study.²³

Results

In total, 7676 records were identified through databases and 800 through the grey literature search. After removing duplicates, the titles and abstracts/summaries of 7492 records were screened. Of these, 234 full text papers were assessed for inclusion. In total, 16 studies met the eligibility criteria and were included in the systematic review (figure 1).

The included evaluations were heterogeneous in study design, including: 1 randomized controlled trial (RCT),¹⁵ 1 controlled before after study (non-RCT),²⁵ 2 mixed methods studies,^{26,27} 1 uncontrolled before after study,²⁸ 1 qualitative study¹⁴ and 10 mixed methods reports.^{16,29–37} With 1 exception,¹⁵ all included evaluations were conducted in the past 10 years, indicating that SP is a relatively new concept in the social and health sectors in the UK. Descriptions of the included SP programmes, study designs, and data collection methods and tools can be found in table 1.

Service user outcomes of SP programmes are described by the following identified themes: health and wellbeing, health-related

behaviours, self-concepts and feelings, social interactions and day-to-day functioning.

Health and wellbeing

Qualitative research found that service users experienced improvements in their mental and physical health and wellbeing.^{14,16,30–32} Improvements in blood pressure, weight loss, reduced cholesterol and sugar levels were reported outcomes associated with improved physical health.^{14,16,30,32}

Although qualitative research consistently reported positive impacts on health and wellbeing, quantitative research found mixed results. The study by Friedli *et al.*³⁵ using the WEMWBS, Grant *et al.*¹⁵ using the Hospital Anxiety and Depression Scale (HADS) for anxiety, and Kimberlee *et al.*³² using the Patient Health Questionnaire 9 (PHQ9) and Generalized Anxiety Disorder 7 (GAD7) score, found a statistically significant improvement in mental health. In contrast, the study by Wigfield *et al.*³⁴ using the seven-item WEMWBS (SWEMWBS), The Health Foundation³¹ using the HADS, and Grant *et al.*¹⁵ using the HADS for depression, found no statistically significant improvement in mental health. Five evaluations used the SWEMWBS to assess a change in mental wellbeing, and one the Measure Yourself Medical Outcome Profile (MYMOP) but due to incomplete data and small sample sizes statistical analyses were not conducted.^{27,29,30,36,37}

The before and after study by Grayer *et al.*²⁸ found a significant improvement in general health, using the General Health Questionnaire 12 (GHQ-12). In line with this result, the RCT by Grant *et al.*¹⁵ found a statistically significant difference in the COOP/WONCA functional health assessment chart for pain and general health, but no statistically significant difference for physical fitness was observed. Moreover, the intervention group showed a statistically significant greater improvement on the delighted-terrible faces scale, measuring perceived quality of life, than the control group.¹⁵ Whereas the study by the Health Foundation³¹ found no statistically significant change in general wellbeing (tool not specified), the study by Dayson *et al.*¹⁶ found statistically significant improvements in wellbeing using the Rotherham Wellbeing Scale. The study by Loftus *et al.*²⁵ and Carnes *et al.*²⁶ found no statistically significant change in the number of prescribed medications before and after participating in SP programmes.

Health-related behaviours

Service users reported improvements in health-related behaviours, e.g. increased physical activity, reductions in alcohol, drug consumption and intake of unhealthy foods, due to participation in an SP programme.¹⁴ Qualitative studies found that SP helped service users to identify their needs and take actions to improve their health and wellbeing.^{29,33,35} Service users identified the meetings with navigators and the establishment of a supportive and trust relationship as major enablers to behaviour change.^{33,35} The study by Moffat *et al.*¹⁴ identified continuous and need driven support and motivation from navigators as a major facilitator to uptake and continuous engagement with referred services. Moreover, service users reported that they built their self-reliance, self-confidence and independence during the work with navigators, so that they felt ready to engage with the referred services.¹⁴ Two studies found that contact with navigators, and their help to identify non-medical needs, was enough for some service users to take actions to improve their health-related behaviours.^{29,30}

Consistent with the qualitative findings, the quantitative study by Kimberlee *et al.*³² found a statistically significant increase in the frequency of weekly walking and moderate exercise. In contrast to the qualitative findings, the study by Wigfield *et al.*³⁴ found no statistically significant changes in attitudes to healthy eating and

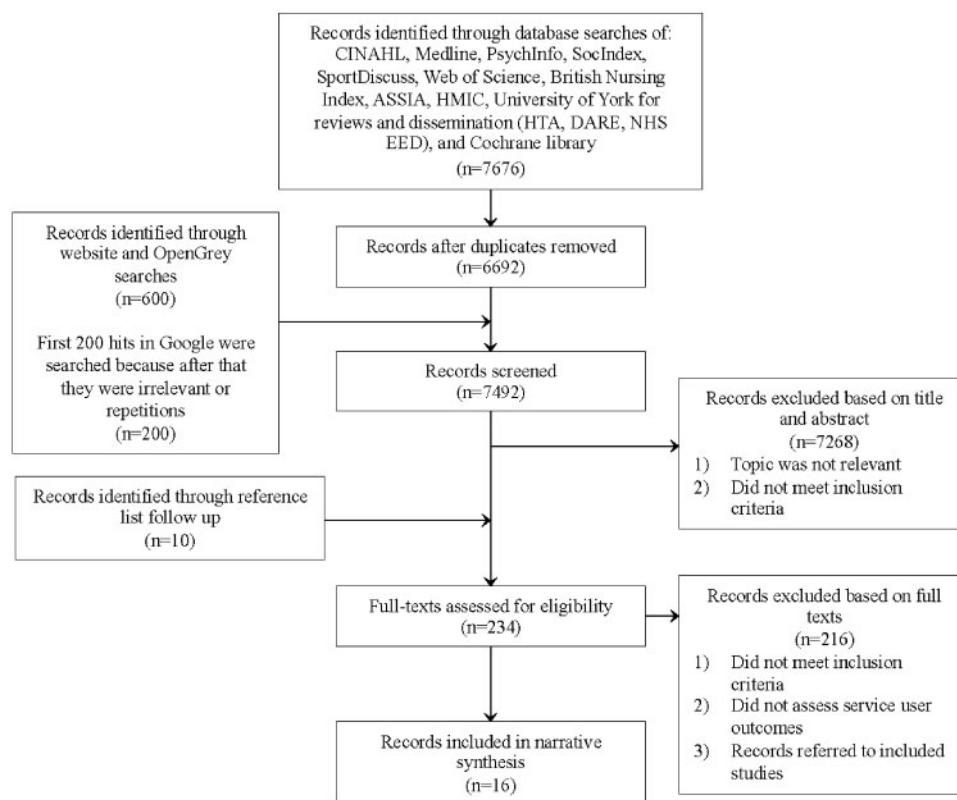


Figure 1 Adapted study selection flow diagram based on PRISMA²⁴

fruit and vegetable consumption at the end of the SP programme (compared with the baseline measures).

Self-concepts and feelings

The term self-concept refers to the mental representations that individuals use to reason about themselves. Self-concepts include self-beliefs, self-appraisal of abilities, behaviours and characteristics. In contrast to health, wellbeing and health-related behaviours, changes in perceived self-concepts and feelings were explored in qualitative and descriptive research exclusively. Multiple qualitative studies found that participating in SP improved the self-esteem, self-value, and hope of service users and made them feel useful and worthwhile.^{16,27,29–31,37} Another commonly reported outcome for service users is an improvement in self-confidence.^{14,16,27,29,30,32,35} Qualitative findings show that SP has the potential to develop and enhance self-confidence and independence of service users, so that they feel able to travel with public transport, leave their house, get involved in new activities in their community, take control over their health and to manage their conditions.^{16,29–31,33,35} However, one service user of the SP programme in Newcastle reported feeling less confident after participating in SP, as a result of not experiencing the expected health improvements.³⁰

In line with most qualitative findings, one descriptive study found an increase in confidence to manage LTCs in a small sample ($N=7$) of service users after participation in SP (compared with the baseline).³⁰

Social interactions

Social isolation and loneliness were commonly related to poor mental health and LTCs preventing social interactions, free time activities and engagement in the community.^{16,27,33} Results of the evaluation of the SP programme in Brighton and Hove showed that 60% of service users who were socially isolated felt more satisfied with the amount of time they spend with others as a result of

participating in SP.³³ Offering opportunities for activities, which allowed people to establish social links, new friendships, a sense of belonging, group cohesion, and to socialize and meet people in the community, reduced social isolation.^{14,16,27,29,31,32,35} Moreover, service users reported that SP programmes provided opportunities to learn new skills, e.g. art techniques, singing, how to use gym equipment, and play sports, and to revive old skills.^{14,16,27,32} Acquiring such skills promoted engagement in related local activities and interaction with people in the local community sector, beyond the SP programme.³⁵

In line with the qualitative findings, the study by Kimberlee *et al.*³² found a statistically significant increase in the Friendship Scale score compared with the baseline score, indicating reduced social isolation at the end of the SP programme. However, the RCT by Grant *et al.*¹⁵ found no significant difference in perceived social support on the Duke-UNC functional social support scale and on the COOP/WONCA functional health assessment charts for social activities between the intervention and control group. In addition, The uncontrolled before and after study by Wigfield *et al.*³⁴ found no statistical significant difference in any of the four indicators used to measure loneliness and isolation post-intervention, compared with baseline scores.

Day-to-day functioning

To address wider economic and social issues, navigators provided advice and information, or made referrals into services to address debt, welfare, employment and housing issues.^{14,32,37} Numerous qualitative studies found that SP helped service users to find a job or to go back to work after illness or accident, through employment assistance (e.g. curriculum vitae writing), motivation, and support from navigators and referred services.^{14,26,31,32} Another important aspect of SP services was to help service users to understand their situation and to access a range of welfare benefits they are entitled to but often not aware of.^{14,16,37} Moreover, navigators took practical

Table 1 Overview of studies included in the review

Author and date of publication	Name, location and description of social prescribing programme	Study design	Data collection methods and tools for service user outcomes
Brandling <i>et al.</i> (2011)	New Routes, Keynsham Primary care professionals refer patients with social disengagement or low mood leading to a loss of connection to other people and the community, to a Social Prescribing navigator. Navigators assess patients' non-medical needs in a one-hour appointment and connect them with appropriate sources of support, provided by third sector organizations, to meet their needs.	Mixed methods study	Interviews with service users, navigators, referring general practitioners, and notes of navigators' reflective diaries 14-item Warwick Edinburgh Mental Wellbeing Scale (WEMWBS), Adopted Measure Yourself Medical Outcome Profile 2 (MYMOP2)
Grayer <i>et al.</i> (2008)	GPCMHW Community Link scheme, London Boroughs of Camden and Islington Members of the primary health care team refer patients to graduate primary care mental health workers (GPCMHW) who carry out a semi-structures assessment of service user's psychosocial needs and advice service users about potential community resources which might help to meet their identified needs. The GPCMHW make the initial contact with the organizations and when required accompany service users to their initial meeting.	Quantitative study: uncontrolled before and after study	Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE-OM), General Health Questionnaire 12 (GHQ-12), Work and Social Adjustment Scale (WSAS)
Grant <i>et al.</i> (2000)	Amalthea Project, Avon General practitioners refer patients to a navigator who provides support and encourages attendance at recommended local and national voluntary organizations and support groups.	Quantitative study: randomized control trial	Hospital Anxiety and Depression scale (HADS), COOPWONCA functional health assessment charts, Delighted-Terrible Faces Scale (Quality of life), Duke-UNC functional social support questionnaire
Carnes <i>et al.</i> (2017)	Social Prescribing Service, London Boroughs of City and Hackney General practitioners refer patients who were frequent attenders and/or socially isolated to a social prescribing navigator. At the first meeting with the navigator, service users discuss their personal circumstances and a mutually determined well-being action plan is developed. To achieve the goals on the action plan, service users are referred to community organizations and services. Volunteers are trained by the navigators to assist the delivery of the service and provide additional support to service users.	Mixed methods study	Interviews with service users Questionnaires for patients [including General Health score, HADS, wellbeing in the past week (076), active engagement in life score (0720), number of regular activities (076)], number of medications prescribed (antidepressants, antipsychotics, anxiolytics, non-steroidal anti-inflammatory drugs and opioid analgesics)
Dayson <i>et al.</i> (2016)	The Rotherham Social Prescribing service, Rotherham General practitioners identify and refer primary care patients with complex long-term conditions and carers of case-managed patients to a navigator who assesses the non-clinical support needs of patients and carers before referring them to appropriate services in the voluntary and community sector.	Mixed methods study	Interviews with service users, public sector stakeholders, project staff, and voluntary and community organizations Rotherham wellbeing scale (consisting of eight measures associated with aspects of self-management: feeling positive, lifestyle, looking after yourself, managing symptoms, work, volunteering and other activities, money, where you live, and family and friends. For each measure a five point scale was used 1: Not thinking about it to 5: As good as it can be)
Farenden <i>et al.</i> (2015)	Community Navigation Programme, Brighton and Hove General practitioners identify and refer patients with psychosocial needs to a navigator who assesses the psychosocial needs of patients and refers them to activities and services in the third sector. Once a service user is referred to an activity, the navigator follows-up the process, and if needed, offers further support.	Mixed methods study	Interviews with service users, general practitioners, and the practice manager Questions to measure enhanced wellbeing and quality of life (indicators: reduced isolation, increased social activity, community links, improvement in wellbeing)
Vogelpoel and Jarrold (2014)	Social Prescribing programme, Rotherham General practitioners identify and refer older patients who have single or multi-sensory impairment and experience social isolation and associated health problems to a navigator. The navigator contacts the service users and signpost them to a practical workshop programme. Transportation and communication needs are discussed at this stage. Regular contact is maintained with the navigator throughout the process, with reminders for transport arrangements and upcoming developments signposted to service users throughout the process.	Mixed methods study	Interviews with service users, family members, and staff (arts facilitators, support staff, and resource centre manager) 14-item WEMWBS

(continued)

Table 1 Continued

Author and date of publication	Name, location and description of social prescribing programme	Study design	Data collection methods and tools for service user outcomes
Kimberlee <i>et al.</i> (2014)	Wellspring Healthy Living Centre's social prescribing wellbeing programme, Bristol General practitioners refer patients with psychosocial needs to a navigator. With the navigator's support, service users set health and wellbeing goals in an action plan. Navigators support service users to access sources of support in the community (e.g. peer-support groups, creative activities, physical activities) to achieve their health and wellbeing goals.	Mixed methods study	Interviews with service users, staff at the Wellbeing Healthy Living Centre, referring primary care professionals, funder of the intervention, community service manager, practice managers, social workers, mental health workers, city council officials Patient Health Questionnaire 9 (PHQ9) Scale for depression, Generalised Anxiety Disorder-7 (GAD7), Office for National Statistics (ONS) Wellbeing Scale (four indicators: satisfaction with life, feeling happy, feeling anxious, feeling doing worthwhile things in life), International Physical Activity Questionnaire (IPAQ), Friendship Scale for Isolation
Wigfield <i>et al.</i> (2015)	Fit for future programme, Nottinghamshire, Newcastle and West Cumbria Primary healthcare professionals refer older patients with at least one long-term condition and declining health and/or mental wellbeing to a navigator of the social prescribing programme. The navigators develop an action plan with patients and refer them to sources of support in the community to meet their needs.	Mixed methods study	Interviews with referring general practitioners Seven-item Warwick Edinburgh Mental Wellbeing Scale (WEMWBS), question about fruit and vegetables consumption, questions about minutes walking per week and hard breathing activities, four indicators (companionship, feeling isolated, left out, in tune with others around) to measure social isolation and loneliness (no specified tool)
Moffat <i>et al.</i> (2017)	Link worker social prescribing programme, Newcastle upon Tyne Primary care professionals refer patients aged 40–74 years with one or more of the following long-term conditions: diabetes (types 1 and 2), chronic obstructive pulmonary disease, asthma, coronary heart disease, heart failure, epilepsy, osteoporosis, with or without anxiety or depression, to a navigator of the social prescribing programme. The navigators assess the psychosocial needs of the referred service users and jointly identify their health and wellness goals. Navigators connect service users to community and voluntary groups and activities (e.g. welfare rights advice, walking groups, physical activity classes, arts groups, continuing education) to help to achieve their goals. Social prescribing programme, Northern Ireland General practitioners refer patients over 65 years of age with a chronic condition (including falls, social isolation, depression/anxiety) and either evidence of polypharmacy (defined as five or more repeat medications) or viewed by the general practitioner as a frequent attender, to a social prescribing navigator. The navigator and the service user agree on a 12-week programme, including, e.g. social clubs, Men's Shed, counselling, arts programme, falls prevention, exercises classes, crochet classes, personal development, craft classes, befriending and computer courses, to improve the health and wellbeing of the service user.	Qualitative study	Interviews with service users Number of prescribed medications
Loftus <i>et al.</i> (2017)	Sources of Support (SOS), Dundee General practice staff refers patients with psychosocial and/or practical support needs to a navigator. The navigators assess the psychosocial needs of patients and refer them to appropriate sources of support in the third sector, to meet their non-clinical needs. Shine, London Boroughs of City and Hackney General practice staff refers patients to a social prescribing navigator. The navigator assesses the service users' non-clinical needs and connects them with community services delivered by 85 statutory and voluntary groups.	Quantitative study: controlled before and after study (non-RCT)	Interviews with service users, referring primary care professionals, navigators 14-item WEMWBS, Work and Social Adjustment Scale (WSAS)
Friedli <i>et al.</i> (2012)		Mixed methods study	Interviews with service users, navigators, referring general practitioners, community organizations, staff from City and Hackney Clinical Commissioning group Hospital Anxiety and Depression scale (HADS), General Health Score (tool not specified), General Wellbeing Scale (tool not specified), Positive and active engagement in life (tool not specified)
The Health Foundation (2015)		Mixed methods study	

(continued)

Table 1 Continued

Author and date of publication	Name, location and description of social prescribing programme	Study design	Data collection methods and tools for service user outcomes
ERS Research and Consultancy (2013)	Newcastle Social Prescribing project, Newcastle Healthcare professionals refer patients with psychosocial needs to one of the five collaborating Linkwork Organizations (Age UK, HealthWorks, Newcastle Carers, Search and West End Befrienders). Navigators from the Linkwork Organization assess the non-clinical needs of referred service users and either refer them to activities provided by their organization or refer them to other activities in the third sector to meet their non-clinical needs.	Mixed methods study	Interviews with service users, referring healthcare practitioners, steering group members Seven-item Warwick Edinburgh Mental Wellbeing Scale (WEMWBS), Confidence scale (Unspecified tool)
Baines (2015)	Rugby Social Prescribing Project, Warwickshire General practitioners refer patients who had experienced a recent change in their circumstances, such as a diagnosis of a chronic condition or bereavement, to a navigator. The navigator assess the patient's non-clinical needs and signpost them to sources of support in the community.	Mixed methods study	Interviews with social prescribing staff, project partners, and service users 14-item WEMWBS
Age UK (2012)	Social Prescribing, Yorkshire and Humber General practitioners refer patients aged 55 years or older who have mild-to-moderate depression or were lonely and socially isolated to a navigator based on a local Age UK side. The navigator completes an in-depth assessment of the service users' social, emotional and practical support needs. Service users are then signposted to Age UK services to meet their identified non-clinical needs.	Mixed methods	Qualitative data collection methods are not stated in the report 14-item WEMWBS

action to solve daily problems and worries of service users.¹⁶ Service users reported that due to SP they felt able to better cope with day-to-day activities.¹⁶

In line with the qualitative findings, the study by Grayer *et al.*²⁸ and Friedli *et al.*³⁵ found a significant decrease in the WSAS score after the SP programme, indicating a reduction in impaired functioning (i.e. an improvement). The RCT by Grant *et al.*¹⁵ found that the intervention group, in contrast to the control group, showed a significant improvement on the COOP/WONCA functional health assessment charts for being able to perform daily activities post-intervention.¹⁵ In contrast to these results, the study by the Health Foundation³¹ found no statistically significant change in 'positive and active engagement in life' (tool not specified) between the intervention and control group.

Quality appraisal

Most of the included evaluation reports did not provide detailed information on data collection tools, recruitment and sampling strategies, data analysis methods, uptake, adherence and results. Methodological information and results tend to be spread over evaluation reports and can be found, e.g. in footnotes and the Appendix. Hence, there is a lack of a structured and detailed methodology section and detailed reporting of results in most evaluation reports of SP in the UK, which creates a challenge to quality appraisal. In addition, many included quantitative evaluations used non-validated tools, had small sample sizes, significant losses to follow-up, no control group and short follow-up periods. The quality scores of each included evaluation are presented in table 2.

Discussion

This systematic review has examined the evidence on service user outcomes of SP programmes, to inform policy, practice and future research in this field. Consistent with the findings of other reviews, this review found that the quality of the majority of included studies was poor.^{17–19,38} The methodologies were often poorly reported, with sparse data on numbers of participants and loss of follow-up, a non-comprehensive sampling strategy, and a lack of information on data collection and analysis methods. None of the included quantitative studies conducted sample size calculations to determine the number of participants needed for sufficient power to demonstrate a change in outcomes. There were no consistent similarities and differences between the results of higher and lower quality studies.

The existing evidence for improvements in health and wellbeing, health-related behaviours, self-concepts and daily functioning is mixed. The mixed results among quantitative studies could be explained by the diversity of applied tools to measure service user outcomes across studies. Although we found that studies are interested in similar outcome areas, the tools to measure these outcomes varied between studies. The study by Kimberlee *et al.*,³² Wigfield *et al.*³⁴ and Grant *et al.*,¹⁵ e.g. were interested in social outcomes of SP, but used four different tools, assessing different aspects of social outcomes: social isolation (Friendship Scale), loneliness and isolation (none validated tool used), and perceived social support (Duke-UNC functional social support scale) and involvement in social activities (COOP/WONCA functional health assessment charts for social activities), accordingly. In addition, even when included studies used similar validated measurement tools [HADS: Grant *et al.*,¹⁵ The Health Foundation³¹ and WSAS: Grayer *et al.*,²⁸ and Friedli *et al.*,³⁵] the heterogeneous study designs and missing information make it difficult to compare results between studies.

In contrast to the quantitative results, we found a more consistent trend in qualitative findings. With one exception, the qualitative studies indicated that service users experienced improvements in health and wellbeing, self-concepts, feelings, health-related behaviours and day-to-day functioning, as well as reduced social

isolation. The study by the Health Foundation,³¹ e.g. did not find any statistical significant change in health, wellbeing, and social outcomes between the intervention and control group. However, the qualitative findings of this study, reveal improvements for service users in all these outcome areas.³¹ The observed discrepancy in qualitative and quantitative results is consistent with the findings of a recent mixed methods study evaluating the evidence on SP.²⁶

The presence of such inter-method discrepancy resulted in the further exploration and discussion of the data. There is the possibility that discrepant findings appear due to differences between the qualitative and quantitative samples. For example, in the study by The Health Foundation³¹ the response rate of service users was low when a possibility sampling strategy (randomized selection) was applied to recruit service user for the qualitative study. Therefore, the sampling strategy was changed to a purposive sampling strategy, in which navigators selected service users for the study.³¹ This may have introduced inclusion bias in the qualitative study. In addition, the small sample sizes of quantitative studies may explain the lack of quantitatively measurable effects.⁶ There can be a high level of uncertainty regarding differences in small sample sizes, which besides a massive effect can result in too large *P*-values and confidence intervals to reject a null hypothesis.⁶ Lastly, qualitative studies revealed a number of outcomes that were not assessed by quantitative studies, e.g. improved self-management, hope, improvements in self-concepts (e.g. self-esteem, self-value), increased independence and the ability to take control over ones health. Given that SP can result in unanticipated, inter-related, and personal outcomes, pre-defined quantitative tools may not be able to capture outcomes that reflect the priorities of service users and their perspectives on health and wellbeing.²⁶ However, given the mixed findings of included studies, no clear conclusion on the impact of SP on service users can be drawn at this stage.

Our findings demonstrate some consistency with the findings of the systematic review by Bickerdike *et al.*,¹⁷ which found that there is little convincing evidence for the effectiveness of SP. However, in contrast to the review by Bickerdike *et al.*,¹⁷ we have incorporated the use of qualitative data to understand how and why SP could or could not work in the current review. This nuanced knowledge can contribute to a current research priority in this field, which is to understand 'the mechanisms' of SP, i.e. to understand why and how SP works or does not work.³⁹ Moreover, the review by Bickerdike *et al.*¹⁷ did not identify and discuss the discrepancy between qualitative and quantitative findings of service user outcomes.

Table 2 Quality scores for each study calculated using the MMAT-V 2011

Author and date	Overall quality score
Brandling <i>et al.</i> (2011)	***
Grayer <i>et al.</i> (2008)	***
Grant <i>et al.</i> (2000)	***
Carnes <i>et al.</i> (2017)	***
Dayson <i>et al.</i> (2016)	**
Farenden <i>et al.</i> (2015)	**
Vogelpoel and Jarrold (2014)	**
Kimberlee <i>et al.</i> (2014)	**
Wigfield <i>et al.</i> (2015)	**
Moffat <i>et al.</i> (2017)	**
Loftus <i>et al.</i> (2017)	**
Friedli <i>et al.</i> (2012)	*
The Health Foundation (2015)	*
ERS Research and Consultancy (2013)	*
Baines (2015)	*
Age UK (2012)	*

MMAT-V 2011 Scoring metrics: the overall quality score of a study is presented as * (lowest possible score), **, *** or **** (highest possible score).²²

Since the publication of a scoping review by Kilgarriff-Foster *et al.*,³⁸ the interest and research on SP has increased significantly. In comparison to the current review, the outcomes reported by Kilgarriff-Foster *et al.*, appear to be incomplete, as improved self-esteem and self-efficacy were reported as qualitative services user outcomes only.³⁸ Consistent with our findings, positive outcomes on three scales, the HADS, WEMWBS, and GHQ-12, were identified. However, the consistently reported positive results in the review by Kilgarriff-Foster *et al.*,³⁸ do not reflect the current state of the evidence base on service user outcomes of SP.

Strength and limitations

The strength of the current review is that it is based on a comprehensive search strategy including a large number of databases, a thorough grey literature search and screening of reference lists of relevant literature. Including all study designs to investigate service user outcomes, as we did in this review, enables a level of analysis and interpretation that would not be possible if we included either qualitative or quantitative studies only.

There are also limitations to this review. Firstly, due to the diversity in outcome measures and study designs of included studies, it was not possible to use meta-analytic techniques. Publication bias may be another limitation of this review, as relevant studies may not have been accepted or submitted for publication and therefore were not identified through our database searches. However, to address publication bias and identify relevant evidence that was not published in academic journals, a grey literature search was conducted in this review. Thirdly, our findings cannot be generalized to other SP models (e.g. involving self-referrals into SP), as substantial differences in the SP pathway are likely to affect service user outcomes. Another limitation is that all eligible studies were included in the review, independently of their appraised methodological quality. Poor quality studies were retained because more rigorous studies on service user outcomes of SP are missing. Lastly, we did not consider the differences in the delivery models [e.g. number of sessions with navigators, duration of support, type of support (face-to-face, telephone, text)] of included SP programmes in the analysis. Moreover, we did not consider the differences in the workforce models, i.e. including volunteers or paid staff as navigators, in the analysis. Although this review advances the evidence base on SP programmes based on primary care and involving navigators, more evidence is needed to better understand the benefits of workforce and delivery models of SP.

Implications

It is clear from this and other reviews on the impact of SP^{17,38} that we are not yet able to reliably judge the effectiveness of SP. Thus, the evidence base for SP lags considerably behind practice, as SP is increasingly popular and included in policy in the UK. More robust qualitative and quantitative research, addressing the identified methodological shortcomings, is needed to understand whether SP is to realize its potential. In order to achieve this aim, evaluations need to be built in SP schemes and planned from the outset. In addition to a rigorous and clear evaluation framework a supportive information technology is required to facilitate complete and standardized data collection. However, it is questionable to what extent the 'gold standard' of evidence, i.e. an RCT, is applicable for service user outcomes of SP. Researchers are often faced with the challenge to quantify psychosocial outcomes, such as increased self-confidence and social belonging to meet the expectations of rigorous and high-quality research. As many countries grapple with developing cost-efficient methods to manage LTCs and tackle the gap between the social and healthcare sector, SP offers a potential solution and our findings present some of the opportunities and challenges in its implementation and evaluation.

Supplementary data

Supplementary data are available at *EURPUB* online.

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Key points

- Included studies found mixed findings on the impact of social prescribing services on service users.
- There is a clear discrepancy between qualitative and quantitative findings of the impact of social prescribing services.
- Most evaluations of social prescribing services in the UK are limited by methodological shortcomings and poor reporting.
- More robust and comparable research is required to inform policy and practice about the impact of social prescribing on service users.

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Do parties make a difference? A review of partisan effects on health and the welfare state

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Background: Do political parties matter to health? Do they affect population health either directly or through welfare states' social policies and the eligibility, affordability and quality of health systems? And if they do, how? These are crucial questions if we are to understand health politics or shape public health policy, particularly given the changing landscape of political parties, party dominance in the executive and the mediating influence of the legislature. **Methods:** Using a systematic approach, this review examines 107 peer-reviewed articles and books published after 1978 focusing on high-income countries asking the overarching question: Do political parties matter to health and the welfare state? **Results:** The literature relating parties to health directly was surprisingly thin, thus, the welfare state was used as a 'proxy' variable. An overwhelming majority of the literature sample suggests that Left parties are inclined to expand the welfare state without cutting benefits, while the Right does not expand and tends to reduce benefits. There was an inflection in the 1980s when Left parties shifted from expansion to maintaining the status quo. **Conclusion:** Considering current health trends in the form of measles outbreaks, the 'Deaths of Despair', the rise of previous eradicated infectious diseases and the declining health expectancy rates in some Western countries as well as the rise of Populist Radical Right parties in office we question the current partisanship thesis that political parties matter less and less.

Introduction

It is hard to dispute that policy matters to public health. The history of public health is synonymous with the enactment of public policies, examples being the establishment of clean drinking water supplies, mandatory vaccination policies, tobacco control and many other areas where governments intervene. It is also hard to dispute that policies are motivated by politics, and in democratic countries that means policies made by elected political leaders.

But do the party affiliations of those politicians matter to health and the welfare state in general? Or do politicians merely respond to interest groups, social movements, or technological, economic and social changes, regardless of their party affiliation? The implications of this question for public health and practice could be considerable. If we say parties matter, then we imply that different parties may be more or less receptive to public health messages and public health advocates would, in turn, need to take sides to promote public health (or may be seen as taking sides no matter what they intend).

If we determine that parties do not matter, then a persuasive, evidence-based argument might work on politicians of any party.

Political scientists have been researching this question for decades. In the landmark book by Richard Rose in 1984, 'Do Parties Make a Difference?', Rose attempted to answer the question of whether parties matter with regard to policy outputs. After looking at the UK over a 20-year time period, he concluded that the parties in Great Britain are not 'the primary forces shaping the destiny of British society; it is shaped by something stronger than parties' (p. 142). He claimed that forces outside of party control such as societal changes, public opinion, national and international economic trends as well as global politics are stronger than political parties.¹ This finding may come as a surprise, since so many people care strongly about which parties govern their countries and will argue that the parties in government matter greatly. This was a surprise to political scientists as well, prompting a wave of research in political science that tried to work out what impact parties had on policy.