STUDY PROTOCOL

REVISED Experience and perceptions of Social Prescribing interventions; a qualitative study with people with long-term conditions, link workers and health care providers [version 3; peer review: 2 approved]

Declan J. O'Sullivan[1], Lindsay M. Bearne[2], Janas M. Harrington[3], Joseph G. McVeigh[1]

[1]Discipline of Physiotherapy, School of Clinical Therapies, College of Medicine and Health, University College Cork, Cork, T12X7OA, Ireland
[2]Population Health Sciences Research Institute, University of London, Cranmer Terrace London, England, SW17 0RE, UK
[3]School of Public Health, College of Medicine and Health, University College Cork, Cork, T12 XF62, Ireland

v3 **First published:** 01 Sep 2023, **6**:42
https://doi.org/10.12688/hrbopenres.13762.1
Second version: 12 Oct 2023, **6**:42
https://doi.org/10.12688/hrbopenres.13762.2
Latest published: 09 Jan 2024, **6**:42
https://doi.org/10.12688/hrbopenres.13762.3

Abstract

Background

Long-term conditions (LTC) are a leading cause of reduced quality of life and early mortality. People with LTC are living longer with increasing economic and social needs. Novel patient centred care pathways are required to support traditional medical management of these patients. Social Prescribing (SP) has gained popularity as a non-medical approach to support patients with LTC and their unmet health needs. The current focus group study aims to explore the experiences and perceptions to SP interventions from the perspective of people with long-term conditions, link workers, healthcare providers and community-based services.

Methods

Six toeight participants will be recruited into three specific 60 to 90 minute focus groups relative to their role as a patient, link worker and community-based service. 8 to12 participants with a Health care provider and GP background will be interviewed individually online.

Open Peer Review

Approval Status ✓ ✓

	1	2
version 3 (revision) 09 Jan 2024		✓ view
version 2 (revision) 12 Oct 2023	✓ view	
version 1 01 Sep 2023	? view	? view

1. **Candice Oster**, Flinders University, Adelaide, Australia
2. **Fiona Cramp**, University of the West of England, Bristol, UK

Any reports and responses or comments on the article can be found at the end of the article.

The participants within these focus groups and semi-structured interviews will be invited to provide opinions on what factors they think are important to the successful implementation of a SP service from their respective stakeholder positions. The data will be recorded and exported to NVivo software for further analysis using Thematic Reflexive analysis methods. Coded categorical data will inform emerging themes from which a narrative summary will be consolidated and presented for dissemination.

Conclusion

The conclusions made from this study will help inform the next study, which will aim to develop a pilot SP service for patients with long-term musculoskeletal conditions as part of an overall larger project.

Keywords
Social Prescribing, long-term conditions, focus groups, link worker, community health worker, self-management

This article is included in the Public and Patient Involvement collection.

This article is included in the Ageing Populations collection.

Corresponding author: Declan J. O'Sullivan (declan.osullivan@ucc.ie)

Author roles: O'Sullivan DJ: Conceptualization, Data Curation, Formal Analysis, Methodology, Project Administration, Resources, Software, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing; **Bearne LM**: Conceptualization, Methodology, Supervision, Writing – Review & Editing; **Harrington JM**: Conceptualization, Methodology, Supervision, Writing – Review & Editing; **McVeigh JG**: Conceptualization, Methodology, Project Administration, Supervision, Writing – Review & Editing

Competing interests: No competing interests were disclosed.

Grant information: The author(s) declared that no grants were involved in supporting this work.

How to cite this article: O'Sullivan DJ, Bearne LM, Harrington JM and McVeigh JG. **Experience and perceptions of Social Prescribing interventions; a qualitative study with people with long-term conditions, link workers and health care providers [version 3; peer review: 2 approved]** HRB Open Research 2024, **6**:42 https://doi.org/10.12688/hrbopenres.13762.3

First published: 01 Sep 2023, **6**:42 https://doi.org/10.12688/hrbopenres.13762.1

REVISED **Amendments from Version 2**

I thank the reviewer for their helpful comments. I have made the necessary changes to sentence structuring and grammar. Some points raised by reviewer 2 were previously highlighted by reviewer 1 and have since been addressed. The most important consideration to take from reviewer 2 was the justification for sample size and the attainment of information power. I think I have addressed this concern in my latest revision. I have also highlighted that the sample will be recruited from middle to low socioeconomic areas in order to satisfy the aims and inclusion criteria of the study.

Any further responses from the reviewers can be found at the end of the article

Introduction

Background and rationale

Long-term conditions (LTC) are typically characterised as non-self-limiting, persistent specific illness or multiple illnesses co-existing simultaneously[1,2] which cause reduced quality of life and physical capacity and increase with age[3]. Population growth, decreased socioeconomic circumstances and increasing age of individuals living with LTC place an extensive burden on society[4]. Management of LTCs is challenging. Biomedical approaches targeting the underlying pathophysiology of the disease[5] have failed to address how an individual experiences ill-health[6]. It is becoming evident that inadequacies in health provision to those in the middle to low socioeconomic groups requires evidence-based and cost-effective methods of managing patients with multifaceted LTC[7–9]. Self-management approaches[10] aiming to improve the day-to-day management of chronic illness include positive lifestyle changes and health literacy education[11–13] to help reduce economic burden by empowering individuals to cope with their condition.

Social Prescribing (SP) is a self-management approach involving the utilisation of services already embedded in the community, and may act as short and long-term support for patients with health and wellbeing issues[14]. SP emerged over a decade ago[15] and is growing across many countries to support those lower socioeconomic communities who have increased prevalence of long-term health and wellbeing conditions[16]. SP involves the use of a lay person "link worker" or "community health worker" who facilitates the acquisition of tertiary non-clinical services after receiving a referral from a General Practitioner (GP) or other health care providers (HCP)[17,18]. SP models may be categorised as 'broad', involving light touch signposting to financial, employment or housing support services[19]; referral to community groups (art/exercise therapy)[14] or more 'tailored' where support is more intensive to address unmet physical and mental health needs[16,20]. The evidence base around the use of SP models is emerging but of mixed results[14,21,22]. Reviews have highlighted the lack of robust methodological evaluation[22,23], inappropriate use of comparative outcome measures, high attrition rate and lack of appropriate controls[14,24] as barriers to proper scientific evaluation. With so many different SP models each reflecting the community's needs, it is difficult to establish what factors influence its successful implementation from the perspective and experiences of all the relevant stakeholders. The outcomes from this qualitative research will inform development of a later pilot study examining the effectiveness of broad or tailored SP models in people with long-term musculoskeletal conditions.

Aims and objectives. The aim of this qualitative study is to explore the implementation, utility and effectiveness of SP interventions in people with LTCs and those link workers, health care professionals and community based services who are engaged in SP interventions. The information collated from this study will inform a later pilot study examining the effectiveness of a specific SP intervention for individuals with long-term musculoskeletal conditions.

Study design

Design

This study will utilise qualitative methodology[25]. The study will include four focus groups and one series of one-to-one interviews. One focus group will be conducted with people with LTC who have participated in SP programmes, one with link workers, one focus group will be conducted with HCPs who can refer to SP programmes and a focus group with community-based services that facilitate referrals from link workers. Each focus group will consist of six-to-eight participants. Individual semi-structured interviews will be conducted with 12 GP's.

The four focus groups will be held on-line primarily but may also be in-person if online opportunities are unavailable. Each focus group discussion will be 60 to 90 minutes long. The semi-structured interviews with GPs will be held in person or Microsoft teams, each lasting 35 to 45 minutes depending on the time constraints of the GP.

A predefined interview schedule will be developed and piloted with people with LTC and Link-workers to ensure important issues relevant to this population may be thoroughly explored through appropriate questions. The focus groups and semi-structured interviews will be moderated by Declan O'Sullivan (DOS) (principle researcher) and assisted by an experienced researcher in qualitative research (JMcV). This study will use a qualitative descriptive design[26] which will enable participants to voice their opinions and permit researchers to explore the phenomenon of interest[27]. Further focus groups and interviews will be conducted if the information power has not been reached with the planned number of focus groups or interviews[28].

Participants

Sample

Four focus groups comprising of six-to-eight participants each and 12 one-to-one semi-structured interviews will be conducted. The sample size and information power required to address a study's aim is difficult to estimate in advance of undertaking qualitative research[28–30]. To address this, guidance was taken from previous researchers who have examined this area, for

example Malterud *et al.*[28] recommended that the aims of the study, sample specificity, use of established theory, quality of the dialogue and analysis strategy influence your sample size to achieve sufficient information power. In consideration of this work, it is believed that the narrowness of this study's aim coupled with the study participants' experience of the phenomenon of interest (SP) will enable extraction of all relevant information from our planned focus groups. The data being sought from the study participants is not complex but given the participant's background is expected to be rich, which should facilitate a thorough analysis of data and identification of emerging thematic codes. The design of this study has committed to conducting 12 one-to-one semi-structured interviews based on the research conducted by Guest *et al.*[30] who reported that 97% of thematic codes could be identified with 12 interviews. In recognising, the necessity for systematic reflection and reviews throughout the data collection process, further focus groups or interviews will be conducted until thematic exhaustion has been reached.

Inclusion criteria

The participants recruited for this study will be:

1. People living in middle-to-low socioeconomic areas within the South -South West Hospital group regions with LTCs who are currently or have in the past engaged with SP interventions (within the last six months). Participants will be over the age of eighteen years and be able to communicate in English (n=6–8)

2. Link workers embedded within a community who facilitate the implementation of a SP service on behalf of a voluntary or governmental agency (n=6–8)

3. Healthcare practitioners (Physiotherapists, Occupational therapists, Speech and language therapists, Social workers and GPs) who currently refer or previously referred patients directly to the link worker within a SP service (n=8–10)

4. Existing or past community-based service providers of SP interventions (n=6–8).

Participant Exclusion criteria

1. Individuals who do not have a LTC or are under the age of 18. Those with existing psychiatric illness or insufficient English to enable informed consent to the study or where participation in the study may be detrimental to their health.

Ethical and regulatory considerations

Patient information sheets (Extended Data) will be provided and written informed consent (Appendix 5) will be acquired prior to and digitally recorded on the date of the focus group discussion. Participant confidentiality will be prioritised throughout the duration of this study. All participants' data will be systematically anonymised digitally and only accessible by the principal researcher (DOS) and 1st research supervisor (JMcV). The participants may withdraw from the study at any stage prior to and after the focus group discussion and their data will not be used in this study and deleted fully. This study will be submitted for ethical approval from University College Cork, Clinical Research Ethics Committee (CREC).

Recruitment

Purposive sampling will be used to recruit participants voluntarily to take part in four focus groups and one semi-structured interview from regions identified as middle to low socioeconomic areas across the Health Service Executive, South-Southwest hospital group regions.

Purposive sampling will be used to recruit participants for each focus group and interview group:

Focus group one: Adults with long-term conditions (n=6–8) from diverse socioeconomic backgrounds

Focus group two: Healthcare providers including physiotherapist, occupational therapists, speech and language therapists, GPs, and social workers (n=8–12)

Focus group three: A 'Gate Keeper' will be used to recruit link workers (n=6–8) for a focus group.

Focus group four: Facilitators working in community-based services (n=6–8)

Interveiw group: General practitioners

To recruit participants for group one, group three and group four focus groups, a formal introductory email (Extended data) will be forwarded to the manager (Gate Keeper) of SP interventions in the South-South West Hospital Group (SSWHG) in Munster. This email will inform them of the details of the study, how many participants are required, and a request to share information about participation with their staff (link workers), patients and community-based SP services as appropriate (*e.g. via* word of mouth, telephone or email). Participants for this group will also be recruited through flyers, social media posts and posters made by the research team and placed in community resource centres, General Practitioner (GP) practices and community-based services already providing SP interventions.

Participants for group two focus group will be recruited with a formal introductory email (Extended data) to the managers (Gate Keepers) of local physiotherapy, occupational therapy, speech and language therapy and social worker departments outlining details of the study, how many participants are required, and a request to share information about participation with their staff. Group 2 may also be recruited indirectly through flyers, social media posts and posters containing the contact details of the principle researcher (DOS).

For the interview group, GP's will be recruited through a formal introductory email (Extended data) to local clinics outlining why GPs are being recruited, details of the study, the duration of the interview and how the interview will be conducted.

Groups two and four may also be recruited indirectly through flyers, social media posts and posters containing the contact details of the principal researcher (DOS).

Interested participants can contact the principal researcher (DOS) who will arrange a time to contact them by telephone. At that initial contact, DOS will explain the study, answer any questions, and screen the participant against the inclusion and exclusion criteria. DOS will provide potential participants a plain language participant information leaflet Extended data) with relevant information about the study and a consent form (Extended data).

Focus group procedure

All participants will be provided with a written information sheet and written consent form prior to commencement of the focus group discussion. The participants will be sent an email with a M-Teams meeting link one month prior to the focus group and a reminder one week in advance clearly indicating the date and time for the discussion. An interview schedule will be formulated by principle researcher (DOS), reviewed by JMcV and piloted prior to the focus group discussion. The facilitator (DOS) will provide at the beginning of each focus group a brief summary/reminder of the purpose of the study and focus group, and outline focus group etiquette and conduct rules. The facilitator will then ask participants to introduce themselves very briefly. There will be eight to 14 open ended questions designed to encourage engagement based around sub-themes of; attitudes and expectations; experience of SP; impact of SP; recommendations and finally exit questions to determine if there were any outstanding or new themes that had not been explored. Participants will be reimbursed for any financial cost associated with travel to and from the focus group if they are held in person. If the focus groups are held in person, a suitable venue will be identified with appropriate wheelchair access. The discussion will be preceded by a quick synopsis of the aims and objectives of the study and moderated by DOS in its entirety and guided by the interview guide. A non-participant mediator (JMcV) will track the questions and ensure all topics are followed up.

Interview procedure

All participants will be provided with a written information sheet and written consent form prior to commencement of the interviews. The participants will be forwarded a M-Teams meeting link by email for the date and time of the interview one month prior to the interview and an email reminder one week prior to it. An interview schedule will be formulated by DOS, reviewed by JMcV and piloted prior to the interview data collection. The interview will be recorded once consent has been achieved.

Data collection and analysis

Qualitative data will be collected *via* the focus groups and interviews. Field notes will be taken. Focus groups will be audio recorded using an Olympus Digital Voice Recorder WS-853 or equivalent. Audio-recordings will be immediately transferred to the secure OneDrive folder and deleted from the recording device. The audio files will be transcribed anonymously by the principle researcher (DOS) with all identifiers removed and replaced with an ID number through an on-line proprietary software transcribing software (Otter.ai)[31] or open access otranscribe[32]. If the focus groups or one to one interviews are conducted on line with Microsoft Teams[33], an automated transcribing application embedded within this software will perform the transcription. The data will be exported to a proprietary software NVivo[34] or open access Aquad[35] which is username and password protected software used for the analysis of unstructured text as found in a group discussion[34,36]. The NVivo software will be stored on the principal researcher's (DOS) laptop, which is, also pin code protected. A further encrypted pin will be required to access the data file when using the NVivo software.

A qualitative descriptive design will be utilised for the analysis of the data[27]. The data will be scrutinised qualitatively (DOS) using Reflexive Thematic analysis framework[37,38] to ensure transparency and reduce bias[39]. Using an inductive approach, the following six-step methodology will be employed; data familiarisation; data coding; generation of initial themes; developing and reviewing of themes; redefining, defining and naming of themes and finally write up[38] to enable 'illustrative quotations'[40] to consolidate narrative conclusions[41]. The final phase of the thematic analysis will involve interpretation and reporting of findings. As a quality check, member checking of the dataset may be implemented if after data analysis our interpretation of the data may potentially be recognisable to some participants[42]. If this occurs, participants will be asked to read and comment on the analysis as to its accuracy of their experiences

Data management

Recorded audio files will be saved only until transcription is complete, at which time they will be deleted by the principal researcher DOS. Transcripts will be stored in a secure folder on the project OneDrive. We will store any paper consent forms until such time as they can be scanned and stored electronically, expecting that many consent forms will be scanned and returned by email by the participants. Paper consent forms will then be shredded. We will store participant's consent information (Extended data) on a secure Excel file on the project OneDrive folder.

The electronic data will be stored on an encrypted file on the UCC SharePoint in line with the University's Code of Research Conduct Version 2.3.2019. The qualitative data will be stored in a .sav file on the UCC secure server (OneDrive) on the personal work computers of the principal researcher (Declan O' Sullivan) and PhD supervisor Dr J. McVeigh. We do not anticipate storing any physical data, as consent forms will be shredded and saved electronically.

The electronic data will be stored in line with the Universities Code of Research conduct, for at least 15 years after the publication of any reports or papers arising from the study, after which time the principal researcher DOS will destroy the data.

This electronic dataset will remain within the School of Clinical Therapies and will not be made publicly available for

open data sharing purposes. Participants in the focus groups will not be asked for their consent to share their data publicly. The analysed anonymous data will likely be presented as project output in dissemination such as conferences, journal submissions, and will be included in the final report. Declan O Sullivan: the principal researcher will be responsible for storing and protecting the data collected. Access to this data will be restricted to the research team. Generated data associated with this research will be stored for a minimum of ten years according to university regulations and the data will not be reused. A PDF of the final version of this study will be forwarded to the participants of the focus group by email or post and will simultaneously be submitted to an Open Access journal for publication and dissemination.

Definition of end of study
The focus group will terminate when all participants have departed from the focus group venue. This study will end when the final version of the study has been approved by the research team and it has been submitted to an appropriate journal for publishing.

Quality assurance procedures
The quality of this study will be underpinned by ensuring there is clarity of purpose; recruiting appropriate participants; skilful moderator with effective questions; detailed and systematic analysis of the data[43].

Protocol study status
This study is awaiting ethics approval

Expenses and benefits
Participants of the focus group discussion will be remunerated for the cost of travel to and from the venue hosting the focus group discussion only and will not be remunerated if the focus groups are held online. Participants within the interview group (GPs) will not be remunerated for their time.

Insurance
All research involving patients/volunteers must be approved by UCC Sponsor's Office before study commencement date. When this approval is granted all participants of this study will be indemnified in accordance with the terms and conditions of the UCC policy.

Data availability statement
Extended data
Figshare: Experience and Perceptions of Social Prescribing interventions; a Qualitative study with people with Long-term conditions, Link workers and Health care providers. O'Sullivan *et al.* https://doi.org/10.6084/m9.figshare.23527983

This project contains the following extended data:

Appendix 1 Participant Information Sheet-Patient

Appendix 2 Participant Information Sheet-Link Worker

Appendix 3 Participant Information Sheet-Healthcare Provider

Appendix 4 Participant Information Sheet-Community based service

Appendix 5 Consent form

Appendix 6 Email to 'gatekeeper'-link worker

Appendix 7 Email to 'gatekeeper'-Healthcare provider

Appendix 8 Email to GP clinics

Appendix 9 Interview guide

Appendix 10 Protocol Amendment History

References

1. Dhere A: **Managing complex long-term conditions and multimorbidity.** *Clin Med (Lond).* 2016; **16**(6): 545–547.
PubMed Abstract | Publisher Full Text | Free Full Text
2. Thrall JH: **Prevalence and costs of chronic disease in a health care system structured for treatment of acute illness.** *Radiology.* 2005; **235**(1): 9–12.
PubMed Abstract | Publisher Full Text
3. Blyth FM, Noguchi N: **Chronic musculoskeletal pain and its impact on older people.** *Best Pract Res Clin Rheumatol.* 2017; **31**(2): 160–168.
PubMed Abstract | Publisher Full Text
4. Picco L, Achilla E, Abdin E, *et al.*: **Economic burden of multimorbidity among older adults: impact on healthcare and societal costs.** *BMC Health Serv Res.* 2016; **16**: 173.
PubMed Abstract | Publisher Full Text | Free Full Text
5. Farre A, Rapley T: **The New Old (and Old New) Medical Model: Four Decades Navigating the Biomedical and Psychosocial Understandings of Health and Illness.** *Healthcare (Basel).* 2017; **5**(4): 88.
PubMed Abstract | Publisher Full Text | Free Full Text
6. Kuipers SJ, Cramm JM, Nieboer AP: **The importance of patient-centered care and co-creation of care for satisfaction with care and physical and social well-being of patients with multi-morbidity in the primary care setting.** *BMC Health Serv Res.* 2019; **19**(1): 13.
PubMed Abstract | Publisher Full Text | Free Full Text
7. Briggs AM, Cross MJ, Hoy DG, *et al.*: **Musculoskeletal Health Conditions Represent a Global Threat to Healthy Aging: A Report for the 2015 World Health Organization World Report on Ageing and Health.** *Gerontologist.* 2016; **56 Suppl 2**: S243–55.
PubMed Abstract | Publisher Full Text
8. Briggs AM, Woolf AD, Dreinhöfer K, *et al.*: **Reducing the global burden of musculoskeletal conditions.** *Bull World Health Organ.* 2018; **96**(5): 366–368.
PubMed Abstract | Publisher Full Text | Free Full Text
9. Cimmino MA, Ferrone C, Cutolo M: **Epidemiology of chronic musculoskeletal pain.** *Best Pract Res Clin Rheumatol.* 2011; **25**(2): 173–83.
PubMed Abstract | Publisher Full Text
10. Reynolds R, Dennis S, Hasan I, *et al.*: **A systematic review of chronic disease management interventions in primary care.** *BMC Fam Pract.* 2018; **19**(1): 11.
PubMed Abstract | Publisher Full Text | Free Full Text
11. Musekamp G, Gerlich C, Ehlebracht-König I, *et al.*: **Evaluation of a self-management patient education program for patients with fibromyalgia**

syndrome: study protocol of a cluster randomized controlled trial. *BMC Musculoskelet Disord.* 2016; **17**(1): 55.
PubMed Abstract | Publisher Full Text | Free Full Text

12. Oliveira VC, Ferreira PH, Maher CG, *et al.*: **Effectiveness of self-management of low back pain: systematic review with meta-analysis.** *Arthritis Care Res (Hoboken).* 2012; **64**(11): 1739–48.
PubMed Abstract | Publisher Full Text

13. Mackey LM, Doody C, Werner EL, *et al.*: **Self-Management Skills in Chronic Disease Management: What Role Does Health Literacy Have?** *Med Decis Making.* 2016; **36**(6): 741–59.
PubMed Abstract | Publisher Full Text

14. Chatterjee HJ, Camic PM, Lockyer B, *et al.*: **Non-clinical community interventions: a systematised review of social prescribing schemes.** *Arts Health.* 2018; **10**(2): 97–123.
Publisher Full Text

15. Buck D, Ewbank L: **What is social prescribing.** Kings Fund, 2020.
Reference Source

16. Morse DF, Sandhu S, Mulligan K, *et al.*: **Global developments in social prescribing.** *BMJ Glob Health.* 2022; **7**(5): e008524.
PubMed Abstract | Publisher Full Text | Free Full Text

17. Pescheny JV, Gunn LH, Pappas Y, *et al.*: **The impact of the Luton social prescribing programme on mental well-being: a quantitative before-and-after study.** *J Public Health (Oxf).* 2021; **43**(1): e69–e76.
PubMed Abstract | Publisher Full Text

18. Polley M, Chatterjee H, Clayton G: **Social prescribing: community-based referral in public health.** *Perspect Public Health.* 2018; **138**(1): 18–19.
PubMed Abstract | Publisher Full Text

19. Hassan SM, Giebel C, Morasae EK, *et al.*: **Social prescribing for people with mental health needs living in disadvantaged communities: the Life Rooms model.** *BMC Health Serv Res.* 2020; **20**(1): 19.
PubMed Abstract | Publisher Full Text | Free Full Text

20. Kiely B, Croke A, O'Shea E, *et al.*: **Effectiveness of link workers providing social prescribing on health outcomes and costs for adult patients in primary care and community settings. A protocol for a systematic review of the literature. [version 2; peer review: 2 approved].** *HRB Open Res.* 2020; **2**: 21.
PubMed Abstract | Publisher Full Text | Free Full Text

21. Husk K, Blockley K, Lovell R, *et al.*: **What approaches to social prescribing work, for whom, and in what circumstances? A protocol for a realist review.** *Syst Rev.* 2016; **5**: 93.
PubMed Abstract | Publisher Full Text | Free Full Text

22. Kiely B, Croke A, O'Shea M, *et al.*: **Effect of social prescribing link workers on health outcomes and costs for adults in primary care and community settings: a systematic review.** *BMJ Open.* 2022; **12**(10): e062951.
PubMed Abstract | Publisher Full Text | Free Full Text

23. Pescheny JV, Randhawa G, Pappas Y: **The impact of social prescribing services on service users: a systematic review of the evidence.** *Eur J Public Health.* 2020; **30**(4): 664–673.
PubMed Abstract | Publisher Full Text

24. Bickerdike L, Booth A, Wilson PM, *et al.*: **Social prescribing: less rhetoric and more reality. A systematic review of the evidence.** *BMJ Open.* 2017; **7**(4): e013384.
PubMed Abstract | Publisher Full Text | Free Full Text

25. Kitzinger J: **Qualitative Research: Introducing focus groups.** *BMJ.* 1995; **311**(7000): 299–302.
PubMed Abstract | Publisher Full Text | Free Full Text

26. Doyle L, McCabe C, Keogh B, *et al.*: **An overview of the qualitative descriptive design within nursing research.** *J Res Nurs.* 2020; **25**(5): 443–55.
PubMed Abstract | Publisher Full Text | Free Full Text

27. Bradshaw C, Atkinson S, Doody O: **Employing a Qualitative Description Approach in Health Care Research.** *Glob Qual Nurs Res.* 2017; **4**: 2333393617742282.
PubMed Abstract | Publisher Full Text | Free Full Text

28. Malterud K, Siersma VD, Guassora AD: **Sample Size in Qualitative Interview Studies: Guided by Information Power.** *Qual Health Res.* 2015; **26**(13): 1753–60.
PubMed Abstract | Publisher Full Text

29. Guest G, Namey E, McKenna K: **How Many Focus Groups Are Enough? Building an Evidence Base for Nonprobability Sample Sizes.** *Field Method.* 2016; **29**(1): 3–22.
Publisher Full Text

30. Guest G, Bunce A, Johnson L: **How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability.** *Field Method.* 2006; **18**(1): 59–82.
Publisher Full Text

31. Otter.ai: **Otter.ai- Voice Meeting Notes & Real-time Transcription.** California, 2016.

32. Otranscribe: **Otranscribe Open Source.** 2023.

33. Microsoft: **Microsoft Teams.** 2017.

34. NVivo: **NVivo: NVivo qualitative data analysis software.** QSR International Pty Ltd Melbourne, Australia, 2015.

35. AQUAD: **Open Access "AQUAD" Qualitative Data Analysis.** 2023.

36. Hoover RS, Koerber AL: **Using NVivo to Answer the Challenges of Qualitative Research in Professional Communication: Benefits and Best Practices Tutorial.** *IEEE Trans Prof Commun.* 2011; **54**(1): 68–82.
Publisher Full Text

37. Braun V, Clarke V: **Reflecting on reflexive thematic analysis.** *Qual Res Sport Exerc Health.* 2019; **11**(4): 589–97.
Publisher Full Text

38. Braun V, Clarke V: **One size fits all? What counts as quality practice in (reflexive) thematic analysis?** *Qual Res Psychol.* 2021; **18**(3): 328–52.
Publisher Full Text

39. Korstjens I, Moser A: **Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing.** *Eur J Gen Pract.* 2018; **24**(1): 120–4.
PubMed Abstract | Publisher Full Text | Free Full Text

40. O.Nyumba T, Wilson K, Derrick CJ, *et al.*: **The use of focus group discussion methodology: Insights from two decades of application in conservation.** *Methods Ecol Evol.* 2018; **9**(1): 20–32.
Publisher Full Text

41. Charmaz K: **Constructing grounded theory: A practical guide through qualitative analysis**. sage; 2006.
Reference Source

42. Birt L, Scott S, Cavers D, *et al.*: **Member Checking: A Tool to Enhance Trustworthiness or Merely a Nod to Validation?** *Qual Health Res.* 2016; **26**(13): 1802–11.
PubMed Abstract | Publisher Full Text

43. Krueger RA: **Successful Focus Groups: Advancing the State of the Art**. Thousand Oaks, California: SAGE Publications, Inc, 1993.

Open Peer Review

Current Peer Review Status: ✔ ✔

Version 3

Reviewer Report 27 January 2024

https://doi.org/10.21956/hrbopenres.15155.r37722

✔ **Fiona Cramp**
School of Health and Social Wellbeing, University of the West of England, Bristol, UK

The authors have addressed all of my previous comments and I have nothing further to add.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Long term conditions, physical activity, complex interventions

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 2

Reviewer Report 18 October 2023

https://doi.org/10.21956/hrbopenres.15118.r36543

✔ **Candice Oster**
Caring Futures Institute, College of Nursing and Health Sciences, Flinders University, Adelaide, SA, Australia

Thank you for your amendments. I have not further comments.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Social prescribing, qualitative research, chronic condition management.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 1

Reviewer Report 06 October 2023

https://doi.org/10.21956/hrbopenres.15054.r36023

?

Fiona Cramp
School of Health and Social Wellbeing, University of the West of England, Bristol, UK

First line of the abstract Methods - change 'Six-eight...' to 'Six to eight...' and 'link worker and community-based service' to 'link worker or community-based service'. Sentence two, change to 'Eight to12 health care providers and GPs will be interviewed individually online.'

Background and rationale
First sentence: '...and increases with age3' should read 'and increase with age3'.
'Management of LTCs are challenging' should be 'Management of LTCs is challenging'.

Overall, the background sets the scene for the study by identifying the limited evidence base and wide range of models of social prescribing. It would be useful to include a definition of self-management towards the beginning of the background.

The aim of the research is clear and appropriate. It is clear that this research is needed and overall methods are appropriate.

Design: From paragraph one it is not entirely clear how many focus groups are planned as initially it is stated that there will be three focus groups and subsequently there is a statement that focus groups will be continued until sufficient information power has been reached. This needs further clarification. A sentence also needs to be added to justify the difference data collection methods for each stakeholder group. The abstract states that the focus groups will be 60 minutes but the main text indicates 60-90 minutes, this needs to be consistent.

Sample: It is not clear how the proposed overall sample of thirty has been reached. How do you know that information power will be achieved with this number? The sentence relating to numbers per focus group should appear under the sample rather that in the recruitment section: 'We aim to have 6–8 participants per focus group and eight-12 semi-structured interviews.'

The background indicated that the middle to low socioeconomic groups were those with greatest

support needs. How will you ensure that there is adequate representation from this population within your sample?

It needs to be made clear that the 'exclusion criteria' are specific to the patient population.

Focus group procedure - Reword the following sentence: 'The participants will be forwarded a M-Teams31 meeting link by email for the date and time of the focus group one month prior to the focus group discussion by email and an email reminder one week prior to it.' Suggestion: 'The participants will be sent an email with a M-Teams31 meeting link one month prior to the focus group and a reminder one week in advance clearly indicating the date and time for the discussion.'

Will the moderator be present during the focus groups?

How will you decide whether to conduct the focus group via Microsoft Teams or in person?

Data collection and analysis and data management sections are clear.

The paper could be enhanced with consideration of the researchers perspective and how the data that is collected will subsequently be used.

Is the rationale for, and objectives of, the study clearly described?

Yes

Is the study design appropriate for the research question?

Yes

Are sufficient details of the methods provided to allow replication by others?

Partly

Are the datasets clearly presented in a useable and accessible format?

Not applicable

Competing Interests: In the past four years I have co-published with one of the authors (McVeigh). I have no other competing interests.

Reviewer Expertise: Physiotherapy, long term conditions, complex interventions

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 10 Nov 2023

Declan J. O Sullivan

19th Oct 2023,

Re: Experience and perceptions of Social Prescribing interventions; a qualitative study with people with long-term conditions, link workers and health care providers.
Authors: O'Sullivan D1, Bearne LM.2, Harrington JM.3, McVeigh JG1

Dear Prof Cramp,
Many thanks for reviewing my protocol and for your helpful comments and advice. Please see below a point by point response to your comments. The relevant text changes are highlighted in the main study protocol.

Kind regards
Declan O'Sullivan

Response to reviewer

1. First line of the abstract Methods - change 'Six-eight...' to 'Six to eight...' and 'link worker and community-based service' to 'link worker or community-based service'..'
Response: Thank you; I have changed this to reflect your recommendations (Line 25)

2. Sentence two, change to 'Eight to 12 health care providers and GPs will be interviewed individually online
Response: Thank you; I have changed this to reflect your recommendations (Line 26)

3. Background and rationale
First sentence: '...and increases with age (3)' should read 'and increase with age (3)'.
Response: Thank you I have changed this to reflect your recommendations (Line 47)

4. 'Management of LTCs are challenging' should be 'Management of LTCs is challenging'.
Response: Thank you I have changed this to reflect your recommendations (Line 49)

5. Overall, the background sets the scene for the study by identifying the limited evidence base and wide range of models of social prescribing. It would be useful to include a definition of self-management towards the beginning of the background.
Response: Thank you I have changed this to reflect your recommendations (Line 52-55)

6. Design: From paragraph one it is not entirely clear how many focus groups are planned as initially it is stated that there will be three focus groups and subsequently there is a statement that focus groups will be continued until sufficient information power has been reached. This needs further clarification. A sentence also needs to be added to justify the difference data collection methods for each stakeholder group.
Response: Thank you for your point. I have amended the text and added some clarification, hopefully it is much clearer for the reader (line 84-102).

7. The abstract states that the focus groups will be 60 minutes but the main text indicates 60-90 minutes, this needs to be consistent.
Response: Thank you. I can see that now. I have changed the text accordingly (line 25)

8. Sample: It is not clear how the proposed overall sample of thirty has been reached. How do you know that information power will be achieved with this number?
Response: Thank you for your point. I am aware of the difficulties in identifying the correct sample size to validate our findings. I am aware of what factors might influence the arrival at an optimal sample size and the necessity to extract all thematic codes before deciding if more participants are required to reach information power. I think I have addressed your concerns in lines 105-120

9. The sentence relating to numbers per focus group should appear under the sample rather that in the recruitment section: 'We aim to have 6–8 participants per focus group and eight-12 semi-structured interviews.'
Response: Thank you. I have amended this in text (line 106)

10. The background indicated that the middle to low socioeconomic groups were those with greatest support needs. How will you ensure that there is adequate representation from this population within your sample?
Response: Thank you for your comment. I have highlighted in text that I will use purposive sampling to recruit suitable participants from existing SP services and GP clinics and health resource centres from middle to low socioeconomic areas within the South-Southwest hospital group regions (line 154-156). I have also highlighted this in the inclusion criteria (Line 124).

11. It needs to be made clear that the 'exclusion criteria' are specific to the patient population.
Response: Thank you for your point. I have included this information in text now (line 138).

12. Focus group procedure - Reword the following sentence: 'The participants will be forwarded a M-Teams31 meeting link by email for the date and time of the focus group one month prior to the focus group discussion by email and an email reminder one week prior to it.' Suggestion: 'The participants will be sent an email with a M-Teams31 meeting link one month prior to the focus group and a reminder one week in advance clearly indicating the date and time for the discussion.'
Response: I can see this does require some grammar changes and thank you for your suggestion. I have changed this within the text (line 193-195)

13. Will the moderator be present during the focus groups?
Response: Yes the moderator will be present (line 197).

14. How will you decide whether to conduct the focus group via Microsoft Teams or in person?
Response: The recruitment sample, availability of the participants to travel to a suitable venue and finally a COVID resurgence with governmental restrictions will decide whether the focus groups will be held in person or via M-Teams.

15. The paper could be enhanced with consideration of the researcher's perspective and how the data that is collected will subsequently be used.
Response: Thank you again for your advice. I feel I have addressed this point sufficiently in

response to reviewer 1 comments. I have reworded the abstract (line 35 to 37) and background (Lines 71-73) to convey how the data from this study will influence a later study examining the effectiveness of a tailored SP model to MSK long-term conditions

Competing Interests: I do not have any conflict of interest declarations

Reviewer Report 15 September 2023

https://doi.org/10.21956/hrbopenres.15054.r36018

?

Candice Oster
Caring Futures Institute, College of Nursing and Health Sciences, Flinders University, Adelaide, SA, Australia

This article is a protocol for a qualitative study exploring the experiences and perceptions of social prescribing of people with long-term conditions, link workers and health care providers. Participants will be those receiving or delivering social prescribing interventions (social prescribing participants, health care providers, General Practitioners (GPs), and community-based services). Data will be collected via semi-structured focus groups (with social prescribing participants with long-term conditions, link workers, and community-based services) and one-to-one interviews (with health care providers and GPs). Data will be analysed using reflexive thematic analysis. Study conclusions will inform the development of a pilot social prescribing service for people with long-term conditions.

The rational for the study is described. In particular, the authors discuss heterogeneity in social prescribing models and lack of clarity around what factors influence the success of models of social prescribing. Some further discussion is warranted here to link the rationale to the use of outcomes to inform development of a pilot program, as stated in the abstract. It is not clear why there is a need for a pilot program given that people with long-term conditions are already being provided social prescribing (i.e., you are recruiting people with long-term conditions who have received social prescribing). Some contextual information on existing programs and their inclusion of people with long-term conditions, and potentially the need to tailor social prescribing to particular population groups (if that is the rationale for the study), would be useful.

The study aim is quite broad in focusing on experiences and perceptions of social prescribing. Are you looking to explore specific elements that relate to the utility/effectiveness of social prescribing for people with long-term conditions (e.g., barriers and enablers)? It might be worth including some objectives that relate to the study population and the ultimate goal of outcomes being used to inform the development of the new service.

Methods: It would be good to clarify early on in the methods section that there will be one focus

group conducted for each of the three types of participants with 6-8 participants in each focus group. In addition, some clarity around how you will determine when sufficient information power is reached would be useful, particularly given the plan to conduct one focus group per participant group (i.e., how is information power determined and whether further focus groups will be conducted if this threshold isn't reached with the planned number of focus groups).

Under Recruitment, could the 'Groups' be more clearly delineated in terms of which will take part in focus groups versus interview? E.g., 'Group one (focus group)', Group two (interviews)' etc? Otherwise, it reads as though there are four focus groups. It is also stated that *'Participants for group two focus group will be recruited …*' – aren't these participants to be interviewed individually? Interview procedure: Will the interviews cover the same broad domains that were stated for focus groups?

Data collection and analysis: There is some repetition here with the previous section, e.g., around audio recording (which is mentioned under interview procedure) and the use of a semi-structured interview guide. Who will undertake the thematic analysis? How will member checking be undertaken and what is the rational for this? Also, the use of the analysis to inform development of a pilot social prescribing service should be stated in the main text of the article in addition to in the abstract.

Definition of end of study: Is it necessary to mention the end of the focus groups here?

Expenses: Will interview participants be remunerated?

Is the rationale for, and objectives of, the study clearly described?
Partly

Is the study design appropriate for the research question?
Yes

Are sufficient details of the methods provided to allow replication by others?
Partly

Are the datasets clearly presented in a useable and accessible format?
Not applicable

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Social prescribing, qualitative research, chronic condition management.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 26 Sep 2023
Declan J. O Sullivan

18th Sept 2023,

Re: Experience and perceptions of Social Prescribing interventions; a qualitative study with people with long-term conditions, link workers and health care providers.
Authors: O'Sullivan D1, Bearne LM.2, Harrington JM.3, McVeigh JG1

Dear Dr Oster,
Many thanks for reviewing my protocol. Thank you for your comments and advice. I have extracted comments from your report that require actions. I will address each of these below. The relevant text changes are highlighted in the main study protocol.

Kind regards
Declan O Sullivan

Response to reviewer

1. The rationale for the study is described. In particular, the authors discuss heterogeneity in social prescribing models and lack of clarity around what factors influence the success of models of social prescribing. Some further discussion is warranted here to link the rationale to the use of outcomes to inform the development of a pilot program, as stated in the abstract.
Response: Thank you for your comments. I agree this needs clarification.
Action: I have amended the final sentence in the background and rationale paragraph to address this ambiguity (line 69)

2. It is not clear why there is a need for a pilot program given that people with long-term conditions are already being provided social prescribing (i.e., you are recruiting people with long-term conditions who have received social prescribing).
Response: My Ph.D. is exploring the effectiveness of Social Prescribing in the management of long-term musculoskeletal conditions specifically. This FG may inform the optimal SP methodology for individuals with these conditions.
Action: I have reworded the abstract conclusion to reflect this. (Line 34)

3. Some contextual information on existing programs and their inclusion of people with long-term conditions, and potentially the need to tailor social prescribing to particular population groups (if that is the rationale for the study), would be useful.
Response: I have revised the text and I agree that this needs stronger emphasis.
Action: I have replaced 'specific' to 'tailored' and I have made the point that evidence surrounding the use of these SP models is mixed. I have also highlighted that the next study will be examining the effectiveness of each model in long-term musculoskeletal conditions. (line 63)

4. The study aim is quite broad in focusing on experiences and perceptions of social prescribing. Are you looking to explore specific elements that relate to the utility/effectiveness of social prescribing for people with long-term conditions (e.g., barriers and enablers)? It might be worth including some objectives that relate to the study population and the ultimate goal of outcomes being used to inform the development of the

new service.
Response: Thank you for your comment. I have looked at my aim and I have elaborated more on it to give the reader a full sense of what I am trying to achieve with this study.
Action: I have changed the wording of the "Aims and Objectives" paragraph to reflect this. (line 74)

4. Methods: It would be good to clarify early on in the methods section that there will be one focus group conducted for each of the three types of participants with 6-8 participants in each focus group.
Response: I can see the potential for confusion with this and I have amended it to reflect your advice
Action: I have added a sentence to the paragraph under "Design" to add clarity to the design process. (line 84)

5. In addition, some clarity around how you will determine when sufficient information power is reached would be useful, particularly given the plan to conduct one focus group per participant group (i.e., how is information power determined and whether further focus groups will be conducted if this threshold isn't reached with the planned number of focus groups).
Response: Thank you for your advice. I have highlighted this point more in the design.
Action: I have reworded the sentence relating to information power to highlight the point that more focus groups will be conducted until sufficient information power has been reached. (line 91)

6. Under Recruitment, could the 'Groups' be more clearly delineated in terms of which will take part in focus groups versus interviews? E.g., 'Group one (focus group)', Group two (interviews)' etc? Otherwise, it reads as though there are four focus groups.
Response: Thank you for highlighting this. For this study, I will conduct four focus groups (Gp 1 Patients, Gp 2 Referrers, Gp3 Link workers, Gp4 Community based services, and Interview Gp General practitioners)
Action: I have added more information to the paragraph under "recruitment" to reflect this need for clarity. I have added labels to the groupings of participants. (lines 135-149)

7. It is also stated that 'Participants for group two focus group will be recruited …' – aren't these participants to be interviewed individually?
Response: Focus group 2 will not be interviewed individually. Focus group 2 will contain health care practitioners including physiotherapists, occupational therapists, speech and language therapists and social workers. They will be recruited through direct email to gatekeepers and through social media.
Action: In actioning your previous point I hope this will be more clear to the reader now. I have also re-structured the paragraph slightly to bring make this more concise. (line 159-164)

8. Interview procedure: Will the interviews cover the same broad domains that were stated for focus groups?
Response: Thank you for your question. Yes, the interviews will contain the same broad domains as stated for the focus group. This is highlighted in the paragraph under "interview

Procedure”
Action: none is required at this time.

9. Data collection and analysis: There is some repetition here with the previous section, e.g., around audio recording (which is mentioned under interview procedure) and the use of a semi-structured interview guide.
Response: Thank you for highlighting the repetition.
Action: I have deleted any further reference to audio recording processes and interview schedules within the “Data Collection and Analysis” paragraph. (line 206-227)

10. Who will undertake the thematic analysis?
Response: Thank you, this was not clear within the text.
Action: I have added my initials to this sentence to inform the reader who was responsible for this task. (line 218)

11. How will member checking be undertaken and what is the rationale for this?
Response: Thank you for highlighting this. Member checking is an important quality appraisal tool that may be utilized but not necessary depending on the outcome of the dataset analysis.
Action: Under the “Data collection and Analysis” paragraph, I have rewritten this sentence to capture the rationale and procedure for member checking in the event it will be necessary. (line 224)

12. The use of the analysis to inform the development of a pilot social prescribing service should be stated in the main text of the article in addition to in the abstract.
Response: Thank you very much for this advice. I agree this should have been highlighted more.
Action: I have taken this on board and made appropriate changes to the abstract and in-text in the final line of the “background and rationale” paragraph. (Line 34, Line 69)

13. Definition of end of study: Is it necessary to mention the end of the focus groups here?
Response: As a novice researcher, I was following previous studies' headings.
Action: I have deleted this paragraph from the text.

14. Expenses: Will interview participants be remunerated?
Response: Thank you for your comment. No, interview participants will not be reimbursed. Interviews will be conducted online and at a time convenient to them.
Action: This was clarified in the text. (Line 259-261)
15. Is the rationale for, and objectives of, the study clearly described?
Partly
Response: I hope with the advice and recommendations from the reviewer that the rationale and objectives are more clearly defined.

16. Are sufficient details of the methods provided to allow replication by others?
Partly
Response: I have made the necessary changes to the text as proposed by the reviewer. I hope this will address any ambiguity to the reader.

Competing Interests: I have no competing interests