

Evidence and methods required to evaluate the impact for patients who use social prescribing: a rapid systematic review and qualitative interviews

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Declared competing interests of authors: Amy Grove reports funding from the National Institute for Health and Care Research (NIHR) Advanced Fellowship Programme (reference 300060). Adam Briggs reports that part of his salary was part-funded by the NIHR Applied Research Collaboration West Midlands. Aileen Clarke declares former membership of the NIHR Health Technology Assessment Editorial Board (2009–16).

Published September 2022

DOI: 10.3310/RMJH0230

Scientific summary

Impact of social prescribing for patients

Health and Social Care Delivery Research 2022; Vol. 10: No. 29

DOI: 10.3310/RMJH0230

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Scientific summary

Background

Social prescribing (SP) encourages health-care and other professionals to refer patients or clients to a link worker to develop a personalised plan to improve their health and well-being (e.g. support with social isolation, finance, physical activity and weight management). The Department of Health and Social Care commissioned this exploration of the feasibility of evaluating the impact of SP.

Research questions

- What are the most important evaluation questions that an impact study could investigate?
- What data are already available at a local or national level and what else would be needed?
- Are there sites delivering at a large enough scale and in a position to take part in an impact study?
- How could the known challenges to evaluation (e.g. information governance and identifying a control group) be addressed?

Objectives

- Undertake a rapid systematic review to better understand current models of SP, previous evaluations and the evaluation questions that an impact study could investigate (research question 1).
- Undertake qualitative interviews with those working in SP to identify:
 - data already collected at local and national levels and gaps in data availability to inform likely data availability for future evaluation (research question 2)
 - delivery sites, their scale and processes and the number of sites available for future service evaluation (research question 3)
 - known challenges to evaluating the SP link worker model (e.g. information governance and identification of a control group) (research question 4).
- Draw together findings and make recommendations for a future national evaluation of the SP link worker model (including feasibility, strengths and limitations) and how known challenges can be addressed.

Methods

Rapid systematic review

We conducted a rapid systematic review. Electronic searches in MEDLINE ALL (via Ovid) were conducted from inception to 14 February 2019. One reviewer screened potentially eligible studies. Two reviewers assessed studies for eligibility and performed data extraction. Eligible studies included 'social prescription', 'social prescribing' or 'social prescriber', with any study design and any reported outcomes. Studies were synthesised narratively.

Qualitative interviews

Participants were sampled purposively through the NHS England (NHSE) wider network and local contacts. Subsequent participants were snowball sampled. Participants included national SP leads, regional leads and individuals at local sites delivering SP. Key stakeholders from the voluntary sector, topic experts and academic colleagues were also interviewed.

Data collection

A semistructured interview topic guide informed by the review was developed. Key areas included:

- the nature of the service – structure, models implemented, organisations involved and health domains covered
- patient journey
- measured outcomes
- data collection methods and human resources
- volume of service uptake
- service utilisation
- nature and length of follow-up
- potential strengths and limitations of current service
- major enablers and challenges to developing and implementing SP service
- costs and savings of recruiting SP link workers and implementing service
- non-attendance data
- make-up of people taking up SP.

Interviews were audio-recorded with consent and transcribed ahead of data analysis.

Two virtual workshops were undertaken with researchers, those delivering SP services and people with lived experience of SP services.

Analysis

We used a pragmatic framework approach. Data manipulation and analysis were supported through NVivo 13 (QSR International, Warrington, UK) software. The framework was constructed in Microsoft Excel® version 16.0 (Microsoft Corporation, Redmond, WA, USA). Following data familiarisation, initial transcripts were coded into a draft analytical framework aligned to the interview topic guide and study protocol. The framework was applied and further developed as subsequent transcripts were coded, and data were charted and summarised into the framework. The immaturity of the data prevented any theoretical development or identification of reasons for the emergence of a phenomena beyond presentation of summary data with supporting quotations.

Results

Rapid systematic review

We screened 124 papers and included 27 full-text papers comprising one randomised controlled trial (RCT), one trials within cohorts (TwiCs) study, two cohort studies, two before-and-after studies, five mixed-methods studies, six qualitative studies and 10 reviews. This review informed qualitative data collection and anticipated and reported outcomes measures and research challenges (such as the low uptake of SP interventions, small sample sizes and geographical heterogeneity).

Qualitative interviews

We interviewed 25 participants over 6 months. Participants included social prescribers/link workers, regional leads, learning coordinators and three voluntary community and social enterprise sector workers: a programme manager, a freelance director of a voluntary organisation and a manager of a service providing telephone support during the COVID-19 pandemic. In addition, views of topic experts, patient and public representatives, stakeholders and academic colleagues were captured.

The findings are presented in a pragmatic framework. A brief narrative summary is provided here, with key area in parentheses and related headings in italics.

Participants were based in *different regions* (key area 1) in England, including the South West, South East, North West, North East, West Midlands, East Midlands and London. The *service* (key area 1) covers several domains including social isolation, housing and weight management. There is significant heterogeneity in service design and delivery, with the voluntary and charitable sector playing a major role in service delivery. Link workers have varied backgrounds, which may affect services. Large variations were reported in types of services and engagement with Primary Care Networks (PCNs). The link worker model has been running for approximately 2 years; however, other forms of SP have been operational for longer. Training programmes provided to link workers differed. A high turnover of link workers was reported. The *patients' journey* (key area 2) starts with a referral to link workers by a general practitioner (GP) or nurse, or through self-referral. Following a needs assessment, the link worker either delivers the intervention directly or refers the client to an appropriate service.

Outcome measures (key areas 3 and 4) were collected using a wide range of tools. Each locality had its own core data collection method using different tools and recording databases. There were no standard criteria for outcomes data collection; as a result, there is considerable inconsistency in the data collected. Data on non-attendance is usually collected by link workers as a contractual obligation, but these are collected in different formats across different sites. Non-attendance data are not routinely collected by onward referral services. Findings from our rapid systematic review and interviews suggest that well-being is an appropriate outcome to capture the impact of SP.

Volumes of service and uptake (key area 5) are not recorded in standardised systems. Sites have their own heterogeneous databases. Link workers log local referrals and contact records in their own databases. Mapping of the services relies heavily on link workers. *Services utilised* (key area 6) support issues relating to social isolation, finance, housing, physical activity and healthier living. Services are often underfunded or funded short term. *Length of follow-up* (key area 7) varied across sites, and there were differences in follow-up measures and frequency of measurement. Follow-up measures and frequency were seen as client dependent and, therefore, not comparable.

Strength and limitations (key area 8): link workers can dedicate more time to addressing patients' needs (than GPs). SP has the potential to reduce workload on practices. The service enables health-care service providers to look holistically at the needs of people and to unite communities, identify community needs and develop the voluntary sector. Service implementation was limited by the mismatch between patient needs and what providers considered appropriate. Lack of a comprehensive directory of onward referral services made it difficult to know where to direct clients, although some workers had substantial local knowledge. *Barriers and enablers* (key area 9) reflect the newness of the link worker role, which has affected service awareness and acceptance. The training of link workers was seen as an important enabler of SP. Peer support reduced isolation in link workers.

A variety of *costs and savings* (key area 10) issues emerged, including concerns about 'additional costs' such as overheads and costs for the voluntary sector. The service relies heavily on the voluntary sector, where funding models may be unstable. *Non-attendance* (key area 11) data were not systematically collected for onward referral services. Instead, link workers kept their own, limited records. The voluntary sector generally records some data that do not allow for comparison and transfer to a third party. *People who take-up of social prescribing* (key area 12) were generally from more deprived areas, vulnerable and older adults living alone.

COVID-19 changed the service in terms of delivery mode, uptake, client recruitment and client demographics.

Mapping the current social prescribing model

The current SP link worker model is complex, heterogeneous and difficult to consistently map and quantify. We have used the findings of this feasibility assessment to represent the current service model(s) and different pathways.

Assessment of potential methods to complete an impact evaluation of social prescribing

Drawing on our findings, we identified the following potential methods for conducting an impact evaluation.

Retrospective matched cohort analysis

This could be performed using anonymised, individual-level, primary health-care data. Individuals who receive a referral to a social prescription would be compared with those who did not. The control group would be matched for characteristics (such as age, sex, postcode). A condition-controlled analysis would be performed. Outcomes would include clinical outcomes relevant to specific health conditions derived from routine primary and secondary care data.

Strengths and limitations This approach uses existing data and would save time and reduce cost, with no additional burden on current service providers. Clinical outcomes may not reflect the wider effects of SP on well-being.

A mixed-methods pre and post design

A prospective observational design could be used in matched cohorts to compare relevant outcomes such as quality of life and well-being and use a combination of qualitative and quantitative methods.

Strengths and limitations Additional data collection would be required. A mixed-methods approach allows for a richer description and understanding of processes and outcomes. However, the observational design would limit any assessment of causality.

A realist evaluation

A staged realist evaluation could be used to better capture the complexity of SP through testing the programme theory across comparative settings and to provide an explanatory analysis of how and why SP works (or does not work) in particular contexts or settings. This would involve primary data collection using mixed-methods approaches (including but not limited to interviews, focus groups, observation and document analysis). Analysis of results would enable further testing and refining of the final programme theory.

Strengths and limitations A realist approach would allow for learning across policy, disciplinary and organisational boundaries to enable a more in-depth understanding of SP. This approach is resource intensive and limited in design by its context specificity.

A cost-utility analysis

This approach aims to capture resource use, costs and quality-of-life outcomes at a patient level, using routinely available data and data from the research literature, and to construct an economic model to assess differences in participant outcomes and costs for each treatment pathway (e.g. link worker vs. standard care). The difference between overall costs and quality-adjusted life-years for each pathway is used to calculate the incremental cost-effectiveness ratio. The 'traditional/standard care' pathway could be limited to GP referrals to external services and compared with the current pathway.

Strengths and limitations The cost-effectiveness of the link worker model can be established. However, this approach is resource intensive and, where based on routine data, subject to potential data issues. Additional outcome measures would also need to be collected.

A pragmatic cluster randomised trial (potentially plus cost-utility analysis and realist or process evaluation)

General practices would be randomised to either enhanced link worker input or standard care (which includes the current model with a link worker for each PCN). The unit of assessment would be the practice and stratification would be needed for practice size, geographical area and practice deprivation. Standardised protocols for all activity would be required. Outcomes would include well-being and quality of life with, for example, 18 months' follow-up.

Strengths and limitations This approach would allow for an unbiased assessment of the effectiveness of an enhanced link worker approach attached to SP in general practice. Relevant outcomes would be collected (as opposed to relying on less relevant available routine primary care or hospital data). However, this approach is highly resource intensive and does not necessarily evaluate current provision.

Conclusions

We recommend a more interventionist research approach to evaluate the impact and effectiveness of the SP link worker model. Although the use of routine data is attractive, it will not allow for unbiased assessment of the effectiveness of the SP link worker model.

Service provision

- The link worker model is substantially 'heterogeneous' across the country.
- The SP system relies heavily on the voluntary sector who may have precarious financial models.
- There is a clear need for harmonisation of outcomes data and their collection.
- Outcome measures currently collected do not appear to cover all important aspects relevant to SP.
- Mature routine data are not currently available; follow-up periods are 3 to 6 months.

Research priorities

We describe three possible models of effectiveness evaluation to inform future impact studies, together with three modes of evaluation of cost-effectiveness; all have drawbacks to overcome.

Models of evaluation of effectiveness

1. Evaluation based on currently available, routinely collected health-care data. This will require:
 - assembly of generic (not condition-specific), relevant process and outcome measures, including those available from national, routinely collected primary and secondary health-care data
 - development of a deep understanding of the multiplicity of clinical pathways followed by clients receiving link worker interventions to understand what is being evaluated
 - development of evaluative models allowing for restricted follow-up, heterogeneity of delivery modes and effects of confounding.
2. Evaluative mixed-methods research to better capture the complexity of SP through understanding the context-mechanism-outcome configurations across comparative settings.
3. Interventional evaluative research (e.g. a cluster RCT) focused on the link worker approach per se rather than (as presently is being undertaken) on individual conditions.

Models of evaluation of cost-effectiveness

1. Use of routinely available costing and outcomes data, as in effectiveness evaluation 1.
2. Use of routinely available costing and outcomes data where possible and supplementing these with ad hoc data collection.
3. Attachment of a cost evaluation to a cluster RCT entailing ad hoc data collection as part of the design, as in effectiveness evaluation model 3.

Funding

This project was funded by the National Institute for Health and Care Research (NIHR) Health and Social Care Delivery Research programme and will be published in full in *Health and Social Care Delivery Research*; Vol. 10, No. 29. See the NIHR Journals Library website for further project information.

ISSN 2755-0060 (Print)

ISSN 2755-0079 (Online)

Health and Social Care Delivery Research (HSDR) was launched in 2013 and is indexed by Europe PMC, DOAJ, INAHTA, Ulrichsweb™ (ProQuest LLC, Ann Arbor, MI, USA) and NCBI Bookshelf.

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Editorial contact: journals.library@nihr.ac.uk

This journal was previously published as *Health Services and Delivery Research* (Volumes 1–9); ISSN 2050-4349 (print), ISSN 2050-4357 (online)

The full HSDR archive is freely available to view online at www.journalslibrary.nihr.ac.uk/hshr.

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This report

The research reported in this issue of the journal was commissioned and funded by the Health and Social Care Delivery Research Programme and managed by the Evidence Synthesis Programme as project number NIHR131593. The contractual start date was in June 2020. The final report began editorial review in November 2020 and was accepted for publication in May 2021. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HSDR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

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