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Progressing social prescribing with a focus on process of connection: Evidence-informed guidance for robust evaluation and evidence synthesis

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Each element of this [the social prescribing] system requires a robust and relevant evidence base. [1]

Social prescribing, also known as community referral, is gaining international recognition as a tool holding benefits for individuals, health care systems, and societies [2]. It has been referred to as “an innovative approach to public health” [3] (p. 117), and is recommended as an advantageous method to help facilitate recovery from the COVID-19 pandemic [4]. Social prescribing schemes involve health or social care professionals connecting individuals (patients) with local community-based opportunities, such as gardening clubs or walking groups, to improve those individuals’ health and wellbeing (physical, mental and/or social) [2]. Connections can be made through a direct route (health or social care professional to an opportunity) or an indirect route (health or social care professional to social prescribing professional – usually referred to as ‘link worker’ or ‘community connector’ – to an opportunity). Various methods of connection can be used: signposting, prescription or referral in a direct route, and a combination of these in an indirect route [5].

The international proliferation of social prescribing schemes has generated an urgent need for an increased evidence base regarding what works, for whom and in what circumstances [1]. Such an evidence base would facilitate progression of the field of social prescribing, thereby increasing the benefits for individuals, healthcare systems and societies. The development of an increased evidence base requires robust evaluation and evidence synthesis concerning both aspects of the social prescribing “system” [1]: 1) the community-based opportunities for health and wellbeing improvement; 2) the processes of connection from health or social care to those community-based opportunities [1,5–7].

It is recognised that robust evaluation and evidence synthesis would be assisted by consistent data-gathering and outcome-reporting [1,8]. This recognition has led to the development of a Common Outcomes Framework for the first aspect of the social prescribing system – the community-based opportunities for health and wellbeing improvement

– in order to facilitate evaluation and evidence synthesis concerning the impact of social prescribing schemes [8] (Annex D) (see also the Resources section of the United Kingdom (UK)-based Social Prescribing Network: <https://www.socialprescribingnetwork.com/resources> for reports concerning the establishment of useful outcomes and indicators). Corresponding direction pertaining to the second aspect of the social prescribing system – the processes of connection from health or social care to community-based opportunities – is less advanced: the only guidance we could identify was a brief section in the aforementioned Common Outcomes Framework containing a limited number of general suggestions regarding outputs relevant for evaluation and evidence synthesis concerning this aspect of the system [8] (Annex D). This is not surprising given the lesser focus on the process of connection aspect of the social prescribing system [1,5,7]. However, understanding what works, for whom and in what circumstances, as well as how and why, to successfully connect (i.e. connection made and taken up) individuals from health or social care to community-based opportunities for health and wellbeing improvement, is crucial. The most effective opportunity in the world will not achieve its intended outcome(s) if individuals are not successfully connected with it. The focus of this article is therefore on this less-studied aspect of the social prescribing system.

In undertaking our recent realist scoping review focussing on the processes of connection from primary care/family medicine to community-based physical activity opportunities [5] we recognised that such processes of connection comprise three elements:

- 1) approach to identifying eligible and willing individuals who would benefit from health and wellbeing improvement;
- 2) behaviour change strategy aiming to enhance likelihood of individuals undertaking behaviour to improve their health and wellbeing;
- 3) method of connecting individuals with community-based opportunity to improve health and wellbeing.

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Table 1

Guidance for robust evaluation and evidence synthesis concerning the process of connection aspect of social prescribing schemes.

<p>What works?</p> <p><u>Information to be recorded or extracted:</u></p> <p>Process of connection from health or social care to community-based opportunity for health and wellbeing improvement, including the three comprising elements (below), and what actions need to be taken by whom</p> <ol style="list-style-type: none"> 1) approach to identifying eligible and willing individuals who would benefit from health and wellbeing improvement 2) behaviour change strategy aiming to enhance likelihood of individuals undertaking behaviour to improve their health and wellbeing 3) method of connecting individuals with community-based opportunity to improve health and wellbeing <p><u>Indicator to be determined or extracted:</u></p> <p>Proportion of target group connected successfully from health or social care to community-based opportunity</p> <p><u>Data to be collected or extracted to determine indicator:</u></p> <ul style="list-style-type: none"> • Target group – total number of individuals able (eligible and willing^a) to be connected from health or social care to opportunity • Successfully connected group – total number of individuals in target group taking up connection (enrolling for and attending first session of opportunity) <p>For whom?</p> <p><u>Information to be recorded or extracted:</u></p> <ul style="list-style-type: none"> • Characteristics of group of health or social care professionals • For indirect route social prescribing schemes (those using a link worker or community connector) – Characteristics of group of link workers/community connectors • Characteristics of group of organisers/implementers of community-based opportunity • Characteristics of target group of individuals <p>In what circumstances?</p> <p><u>Information to be recorded or extracted:</u></p> <ul style="list-style-type: none"> • Contextual factors that could impact health or social care professionals' capability, opportunity or motivation to connect individuals in target group with community-based opportunity, or in indirect social prescribing schemes, with link workers/community connectors (e.g. financial incentives, workload involved in connecting individuals) • For indirect route social prescribing schemes – Contextual factors that could impact link workers'/community connectors' capability, opportunity or motivation to connect individuals in target group with community-based opportunity (e.g. financial incentives, workload involved in connecting individuals) • Contextual factors that could impact organisers/implementers of the opportunity's capability, opportunity or motivation to contact/respond to connected individuals (e.g. financial incentives, workload involved in contacting/responding to individuals) • Contextual factors that could impact individuals in target group's capability, opportunity or motivation to undertake required action to enable connection, and to take up connection (enrol for and attend first session of opportunity) (e.g. free access to leisure facilities, workload involved in organising uptake) <p>How?</p> <p><u>Information to be recorded or extracted:</u></p> <p>How the process is expected to achieve successful connection from health or social care to community-based opportunity (theory of change)</p> <p><u>Indicator 1 to be determined or extracted:</u></p> <p>Proportion of target group connected from health or social care to community-based opportunity</p> <p><u>Data to be collected or extracted to determine indicator 1:</u></p> <ul style="list-style-type: none"> • Target group – total number of individuals able (eligible and willing^a) to be connected from health or social care to opportunity • Connected group – total number of individuals in target group (successfully or unsuccessfully, i.e. connection taken up or not taken up) connected from health or social care to opportunity <p><u>Indicator 2 to be determined or extracted:</u></p> <p>How connection of proportion of target group connected from health or social care to community-based opportunity worked</p> <p><u>Data to be collected or extracted to determine indicator 2:</u></p> <ul style="list-style-type: none"> • Whether or not the theory of change was realised • Additional mechanisms of action for health or social care professionals connecting individuals in target group with opportunity, or in indirect route social prescribing schemes, with link workers/community connectors • For indirect route social prescribing schemes – Additional mechanisms of action for link workers/community connectors individuals in target group with opportunity • Additional mechanisms of action for organisers/implementers of opportunity contacting/responding to connected individuals • Additional mechanisms of action for individuals in target group undertaking required action to enable connection <p><u>Indicator 3 to be determined or extracted:</u></p> <p>Proportion of connected group connected successfully from health or social care to</p>	<p>community-based opportunity</p> <p><u>Data to be collected or extracted to determine indicator 3:</u></p> <ul style="list-style-type: none"> • Connected group – total number of individuals in target group (successfully or unsuccessfully, i.e. connection taken up or not taken up) connected from health or social care to opportunity • Successfully connected group – total number of individuals in target (and connected) group taking up connection (enrolling for and attending first session of opportunity) <p><u>Indicator 4 to be determined or extracted:</u></p> <p>How connection of proportion of connected group connected successfully from health or social care to community-based opportunity worked</p> <p><u>Data to be collected or extracted to determine indicator 4:</u></p> <ul style="list-style-type: none"> • Whether or not the theory of change was realised • Additional mechanisms of action for individuals in target group taking up connection (enrolling for and attending first session of opportunity) <p>Why?</p> <p><u>Indicator 1 to be determined or extracted:</u></p> <p>Acceptability and feasibility of process of connection for health or social care professionals</p> <p><u>Data to be collected or extracted to determine indicator 1:</u></p> <ul style="list-style-type: none"> • How well the process of connection is received by health or social care professionals • Whether or not the process meets their needs • Whether or not any of the contextual factors recorded or extracted have an impact • Reasons why they do/do not connect individuals in target group with opportunity <p><u>Indicator 2 to be determined or extracted:</u></p> <p>For indirect route social prescribing schemes – Acceptability and feasibility of process of connection for link workers/community connectors</p> <p><u>Data to be collected or extracted to determine indicator 2:</u></p> <ul style="list-style-type: none"> • How well the process of connection is received by link workers/community connectors • Whether or not the process meets their needs • Whether or not any of the contextual factors recorded or extracted have an impact • Reasons why they do/do not connect individuals in target group with opportunity <p><u>Indicator 3 to be determined or extracted:</u></p> <p>Acceptability and feasibility of process of connection for organisers/implementers of community-based opportunity</p> <p><u>Data to be collected or extracted to determine indicator 3:</u></p> <ul style="list-style-type: none"> • How well the process of connection is received by organisers/implementers of opportunity • Whether or not the process meets their needs • Whether or not any of the contextual factors recorded or extracted have an impact • Reasons why they do/do not contact/respond to connected individuals <p><u>Indicator 4 to be determined or extracted:</u></p> <p>Acceptability and feasibility of process of connection for individuals in target group</p> <p><u>Data to be collected or extracted to determine indicator 4:</u></p> <ul style="list-style-type: none"> • How well the process of connection is received by individuals in target group • Whether or not the process meets their needs • Whether or not any of the contextual factors recorded or extracted have an impact • Reasons why they do/do not undertake the required action to enable connection • Reasons why they do/do not take up connection (enrol for and attend first session of opportunity)
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Table 1 (continued)

<p>community-based opportunity</p> <p><u>Data to be collected or extracted to determine indicator 3:</u></p> <ul style="list-style-type: none"> • Connected group – total number of individuals in target group (successfully or unsuccessfully, i.e. connection taken up or not taken up) connected from health or social care to opportunity • Successfully connected group – total number of individuals in target (and connected) group taking up connection (enrolling for and attending first session of opportunity) <p><u>Indicator 4 to be determined or extracted:</u></p> <p>How connection of proportion of connected group connected successfully from health or social care to community-based opportunity worked</p> <p><u>Data to be collected or extracted to determine indicator 4:</u></p> <ul style="list-style-type: none"> • Whether or not the theory of change was realised • Additional mechanisms of action for individuals in target group taking up connection (enrolling for and attending first session of opportunity) <p>Why?</p> <p><u>Indicator 1 to be determined or extracted:</u></p> <p>Acceptability and feasibility of process of connection for health or social care professionals</p> <p><u>Data to be collected or extracted to determine indicator 1:</u></p> <ul style="list-style-type: none"> • How well the process of connection is received by health or social care professionals • Whether or not the process meets their needs • Whether or not any of the contextual factors recorded or extracted have an impact • Reasons why they do/do not connect individuals in target group with opportunity <p><u>Indicator 2 to be determined or extracted:</u></p> <p>For indirect route social prescribing schemes – Acceptability and feasibility of process of connection for link workers/community connectors</p> <p><u>Data to be collected or extracted to determine indicator 2:</u></p> <ul style="list-style-type: none"> • How well the process of connection is received by link workers/community connectors • Whether or not the process meets their needs • Whether or not any of the contextual factors recorded or extracted have an impact • Reasons why they do/do not connect individuals in target group with opportunity <p><u>Indicator 3 to be determined or extracted:</u></p> <p>Acceptability and feasibility of process of connection for organisers/implementers of community-based opportunity</p> <p><u>Data to be collected or extracted to determine indicator 3:</u></p> <ul style="list-style-type: none"> • How well the process of connection is received by organisers/implementers of opportunity • Whether or not the process meets their needs • Whether or not any of the contextual factors recorded or extracted have an impact • Reasons why they do/do not contact/respond to connected individuals <p><u>Indicator 4 to be determined or extracted:</u></p> <p>Acceptability and feasibility of process of connection for individuals in target group</p> <p><u>Data to be collected or extracted to determine indicator 4:</u></p> <ul style="list-style-type: none"> • How well the process of connection is received by individuals in target group • Whether or not the process meets their needs • Whether or not any of the contextual factors recorded or extracted have an impact • Reasons why they do/do not undertake the required action to enable connection • Reasons why they do/do not take up connection (enrol for and attend first session of opportunity)

^a Although not directly concerning whether or not the process of connection works, it would also be useful as part of evaluation or evidence synthesis to collect or extract data regarding why eligible individuals are willing/unwilling to be connected from health and social care to a community-based opportunity for health and wellbeing improvement – this would facilitate the development of future social prescribing schemes.

We also recognised that the effectiveness of processes of connection is dependent on multiple actors actively engaging in the process: 1) health or social care professionals connecting individuals in the target group with a community-based opportunity for health and wellbeing improvement or, in indirect route schemes, connecting individuals with link workers/community connectors; 2) in indirect route schemes – link workers/community connectors connecting individuals with a community-based opportunity for health and wellbeing improvement; 3) organisers/implementers of the opportunity contacting/responding to connected individuals; 4) individuals undertaking the required action to enable connection, and also taking up connection (enrolling for and attending the first session of the opportunity).

These recognitions helped us to identify the information, indicators and data required to evaluate, and synthesise the evidence regarding, processes of connection from primary care/family medicine to

community-based physical activity opportunities. We then removed context-specific details from the information, indicators and data to establish evidence-informed guidance for robust evaluation and evidence synthesis concerning the process of connection aspect of social prescribing schemes more widely. This guidance comprises information to be recorded or extracted, indicators to be determined or extracted, and data to be collected or extracted to enable determination of indicators. We present the guidance in [Table 1](#).

We intend this guidance to help to address the urgent need for an increased evidence base regarding what works, for whom, in what circumstances, how and why concerning the process of connection aspect of the social prescribing system. We hope that this guidance will be useful for those evaluating social prescribing schemes and synthesising the evidence regarding such schemes both in the UK and internationally. We encourage them to expand and adapt it to suit specific contexts and needs.

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Declarations of interest

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References

- [1] K. Husk, J. Elston, F. Grading, L. Callaghan, S. Asthana, Social prescribing: where is the evidence? *Br. J. Gen. Pract.* 69 (678) (2019) 6–7, <https://doi.org/10.3399/bjgp19X700325>.
- [2] National Academy for Social Prescribing Good Health & Wellbeing – Social Prescribing Global Social Prescribing Alliance Playbook. <https://www.gspalliance.com/gspa-playbook>, 2021.
- [3] H.J. Chatterjee, P.M. Camic, B. Lockyer, L.J.M. Thomson, Non-clinical community interventions: a systemised review of social prescribing schemes, *Arts Health* 10 (2) (2018) 97–123, <https://doi.org/10.1080/17533015.2017.1334002>.
- [4] Royal College of Psychiatrists, Social prescribing. https://www.rcpsych.ac.uk/docs/default-source/improving-care/better-mh-policy/position-statements/position-statement-ps01-21-social-prescribing-2021.pdf?sfvrsn=2b240ce4_2, 2021. (Accessed 20 May 2022).
- [5] K.B. Cunningham, R.H. Rogowsky, S.A. Carstairs, F. Sullivan, G. Ozakinci, Methods of connecting primary care patients with community-based physical activity opportunities: a realist scoping review, *Health Soc. Care Community* 29 (2021) 1169, <https://doi.org/10.1111/hsc.13186>, 99.
- [6] M. Elliott, C. Wallace, What Methods for Evaluating Social Prescribing Work, For Which Intervention Types, For Whom, and in What Circumstances? A Protocol for a Realist Review, Wales School for Social Prescribing Research, 2020. <http://www.wsspr.wales/resources/Social%20Prescribing%20Evaluation%20Methodology%20Realist%20Review%20Protocol.pdf>.
- [7] K. Husk, K. Blockley, R. Lovell, A. Bethel, I. Lang, R. Byng, et al., What approaches to social prescribing work, for whom, and in what circumstances? A realist review, *Health Soc. Care Community* 28 (2020) 309–324, <https://doi.org/10.1111/hsc.12839>.
- [8] N.H.S. England, Social Prescribing and Community-Based Support – Summary Guide, 2020. <https://www.england.nhs.uk/publication/social-prescribing-and-community-based-support-summary-guide/>.