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Review Paper

Older adults and social prescribing experience, outcomes, and processes: a meta-aggregation systematic review

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ABSTRACT

Objective: Social prescribing is a complex care model, which aims to address unmet non-medical needs and connect people to community resources. The purpose of this systematic review was to synthesize available evidence from qualitative methods (e.g. interviews or focus groups) on experience, outcomes, and processes for social prescribing and older adults (from the person or provider level).
Study design: This was a systematic review using the Joanna Brigg's meta-aggregative approach.
Methods: We searched multiple online databases for peer-reviewed studies, which included older adults aged ≥60 years (group mean age) and social prescribing experience, outcomes, or processes. We included all qualitative or mixed methods designs from all years and languages. Date of the last primary search was March 24, 2022. Two authors used online software to conduct the screening independently and then decided on the final list of included studies via notes and online discussion.
Results: We screened 376 citations (after duplicates) and included eight publications. There were 197 older adult participants (59% women), and many people were living with chronic health conditions. Few details were provided for participants' ethnicity, education, and related factors. We created five synthesized findings related to (1) the approach of social prescribing; implementation factors such as (2) relationships, (3) behavior change strategies, and (4) the environment; and (5) older adults' perceived health and psychosocial outcomes.
Conclusions: Despite the limited number of available studies, data provide an overview of people and processes involved with social prescribing, identified research and practice gaps, and possible next steps for implementing and evaluating social prescribing for older adults in primary care.

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Introduction

Social prescribing or social prescription is a person-centered health and social model of care, funded by the National Health Service in the United Kingdom[1] and investigated in smaller scale services and studies in other locations such as Australia[2] and Canada.[3] Other terms to describe the concept of social prescribing are community referrals and non-medical referrals. Social prescribing acknowledges health extends beyond "pathologies" to target other factors, such as unmet social needs. There is no accepted definition of social prescribing at present; however, it has been operationalized in several different pathways[4] ranging from providing information on community opportunities to connecting people to a collaborative hub of primary care practitioners (e.g. doctors, nurses, allied health) and community link workers (i.e. providers who connect people to a community program or service; "navigators"). It is a complex intervention[5] and consists of several phases: enrollment, engagement, and adherence (Supplementary Fig. 1).[4] Given its complexity, synthesizing evidence on social prescribing may be useful for organizations and providers seeking to understand how it functions within existing care structures.

Globally, the population is aging,[6] and consequently, the number of people living with chronic health conditions or non-communicable disease is increasing.[7] Older adults (e.g. people aged ≥60 years) may face health-related issues associated with increased social isolation, creating barriers to community mobility and social connections.[8] To our knowledge, there are only two systematic reviews specific to older adults and social prescribing.[9,10] However, in one review,[9] the authors did not locate any primary studies for inclusion in the synthesis; and in our previous review,[10] we only included data from quantitative study designs. Qualitative study designs provide the opportunity to look beyond effectiveness and related outcomes to explore perceptions and practices within social prescribing. Evidence from studies using qualitative methods can often provide information to understand the context and perceptions of interventions. Therefore, to inform our research and practice agenda focused on aging, our research question was, "For older adults and providers, what are the experiences, outcomes, and processes involved with social prescribing?" Our aim was to answer this question by synthesizing evidence based on qualitative research methods.

Methods

This was a systematic review guided by Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA);[11] we registered the protocol with PROSPERO[12] before starting the review PROSPERO 2022 CRD42022320984.

We followed the Joanna Brigg Institute's (JBI) methods for conducting systematic reviews of qualitative literature (meta-aggregation) to synthesize evidence on social prescribing experience, outcomes, and processes related to older adults to inform our future research and practice agenda. An advantage of using meta-aggregation is it supports the policy making process.[13] When using meta-aggregation, the results from individual studies are not reinterpreted; rather, they are collected across included studies and grouped into similar clusters or ideas. We provide more specific information on the meta-aggregative approach in the Supplementary Material.

Search strategy

Information sources

We first used Epistemonikos[14] to locate published systematic reviews on social prescribing using the keywords "social prescribing" or "social prescription" in the title or abstract and identified several publications.[9,15–21] Following this stage, we then searched the following electronic databases: EBSCO (Cumulative Index for Nursing and Allied Health [CINAHL] Complete; APA PsycArticles and PsycINFO; and SPORTDiscus); Cochrane Controlled Trials and Cochrane Database of Systematic Reviews; Embase; Epistemonikos; MEDLINE Ovid; and Google Scholar (advanced feature title only). Supplementary Table 1 provides database search strategies. We also conducted a forward citation and backward (references) search for included publications using Google Scholar and Web of Science. We conducted our last search on March 24, 2022.

Eligibility criteria

We used a Population (Phenomena of) Interest, Context (PICo) framework to identify eligible studies: *population* = older adults aged ≥60 years (study group mean age: therefore, some participants may have been <60 years of age) or providers working with older adults within the same study of social prescribing: we did not include studies only examining providers' experiences because our research question specifically aimed to include social prescribing perspectives and experiences from the lens of older adults; *interest* = experience, outcomes, or processes; and *context* = we only included studies if the authors called the intervention social prescribing or prescription, as there is not a universally accepted definition of social prescribing. We included studies across all years and languages. We excluded gray literature, conference abstracts, and graduate theses.

Selection process and data collection

We followed standard procedures as outlined by PRISMA (Supplementary Material provides a full description of our methods).

Outcomes of interest

We included studies with older adults' and providers' (from the same study when available) social prescribing experience, outcomes, and processes. We discuss older adults as "participants" and providers from health and social care as "providers."

Critical appraisal

We used JBI Checklist aims to assess study quality: two authors (SG, MCA) independently adjudicated responses to 10 questions and met to confirm the final decision. The JBI approach does not recommend using scores to classify a study as low, moderate, or high risk; therefore, we included all studies in the synthesis regardless of the outcome of our appraisal.

Meta-aggregative approach

We followed the methods as outlined by JBI and used SUMARI (JBI, Adelaide, Australia) and Excel to extract findings from each included study of qualitative methods (e.g. interviews and focus groups).[22] We followed the stages in the meta-aggregative approach[23] (Section 2.5) after completing the screening and selecting of evidence phase. We provide a detailed description of our methods in the Supplementary Material document and outline the process in Fig. 1.

Results

Study selection

We screened 376 citations (after removing duplicates) at title and abstract (Level 1) and 61 publications at full text (Level 2). Seven studies (eight publications) were included in the synthesis.[3,24–30] Supplementary Fig. 2 is an overview of the screening

Fig. 1. Summary of the meta-aggregation approach with key terms and definitions.[23]

process outlined in the PRISMA flow diagram. One author of this systematic review (KM) was an author on one of the included studies[3] but was not involved in the screening or appraisal steps of the synthesis process.

Study characteristics

Table 1 provides a summary of the eight included publications. Study locations were Canada,[3] England,[24,26,28–30] Ireland,[27] and the Netherlands.[25] We included descriptive information on participants and settings (when available) using PROGRESS-Plus to guide data extraction. Most studies were located in urban settings. There were 197 participants (59% women), and many older adult participants were living with chronic health conditions; few details were reported on ethnicity (reported by three studies[3,26,28]) or education (reported by two studies[3,27]). One study provided information on income,[3] another study provided information on occupational social class,[28] and two studies reported recruiting participants from a lower resource community setting.[27,28,30] Two studies provided results from providers.[26,27] In one study from the United Kingdom,[26] interviews were conducted with seven general practitioners (GPs; two women and five men, average age 43 years), six link workers (two women and four men, average age 31 years), and three health coaches (one woman and two men, average age 48

Table 1
Description of included studies in the systematic review.

Author *First author, year, location*	Participants *N, gender* *Mean group age* *Additional information*	Intervention *Program description* *1. Referral; 2. Link worker; 3. Providers*	Methods *Qualitative approach*	Funding and conflicts *Funding* *Conflict of interest*
Bhatti, 2021, Canada[3] 11 community health centers in Ontario	*N* = 96, 59 women, 29 men, 8 intersex/transgender/two spirit/other Mean group age = NR Income (n = 75): <$60,000, *n* = 70 Ethnicity (n = 78): White = 63, Black = 5, Asian = 4, Indigenous = 2, Latin American = 3, Middle Eastern = 1 Education (n = 81): No formal education = 2, primary or equivalent = 9, secondary = 49, postsecondary = 21	Referred to LW or directly to activity; support given to attend activity 1. PCP; 2. LW; 3.CHC	Qualitative case study 8 individual interviews, 88 focus groups for remaining participants; conducted at different time points of the study (3, 6, and 12 months)	Health and Wellbeing Grant from the Ontario Ministry of Health None declared
Esmene, 2020, South West England[24]	N = 24, 12 women, 12 men Mean group age = NR People with diabetes	Prescribed walking program 1. GP; 2. SP navigator; 3. voluntary and charity sector organization	Qualitative case study 24 participants in 64 discussions, 7 in-depth interviews, and 1 group interview with 6 participants Conducted over 12 weeks	NR
Heijnders, 2018[25], Nieuwegein, the Netherlands	N = 10, 5 women, 5 men 69 years (range 48–91 years) Referral reason: social issues = 6; psychological issues = 4	Work with coach to choose activity 1. GP/PCP; 2.well-being coach; 3. community well-being organization	Qualitative Study 10 semistructured in-depth interviews	ZonMw Grant from The Netherlands organization for Health Research and Development None declared
Kellezi, 2019, East Midlands, England[26]	N = 19, 12 women, 6 men, 1 prefer not to say 60.4 years (range 29–85 years) Ethnicity: White and/or British = 16 Employment: retired = 10, working = 9 Reason for referral: people living with LTC and loneliness	Referred to self-management or LW, who initiates connections with programs 1. GP; 2. LW; 3. Self-management or third sector groups	Mixed methods study Study 1: semistructured interviews	ImROC (Implementing Recovery Through Organisational Change) None declared
Kiely, 2021, "located in an area of deprivation" p.2, Ireland[27]	N = 6, 4 women and 2 men 66.3 years (baseline data) Baseline data: employed = 18%; Lives Alone: 33%; education = 33% primary education only Number of self-reported health conditions: 2.8 Participants recruited from GP practice in an area of deprivation.	LW support over 6 weeks 1. GP; 2. LW; 3. Community resources	Pilot study Structured interviews	Health Research Board Ireland Collaborative Doctoral Award & Department of Health Slaintecare Integration Fund None declared
Moffatt, 2017 England Inner-city area in West Newcastle upon Tyne England[28]	N = 30, 14 women, 16 men 62 years (range 40–74 years) Unemployed = 12, employed = 4, retired = 14 Representation from across Occupational Social Class except Class 1 (managerial, professions) Ethnicity: Black/minority = 5, White British = 24, White Irish = 1 Most participants had LTC, mental health issues, low confidence, and social isolation	LW support to participate in community or volunteer programs or return to work 1. PCP; 2. LW; 3. Community groups	Qualitative study Semistructured interviews	Cabinet Office of the UK Government Fund None declared
Wildman, 2019, Inner-city area in West Newcastle upon Tyne, England[30]	N = 24, 11 women, 13 men 62 years (range 40–74 years) 23 participants with multiple LTCs and 16 participants experienced mental health issues and social isolation. Participants involved SP service for 12–24 months	Follow-up for Moffatt 2017 study	Qualitative study 30 semistructured interviews	Newcastle University Institute for Ageing None declared

Table 1 (*continued*)

Author	Participants	Intervention	Methods	Funding and conflicts
First author, year, location	*N, gender* *Mean group age* *Additional information*	*Program description* *1. Referral; 2. Link worker; 3. Providers*	*Qualitative approach*	*Funding* *Conflict of interest*
Vogelpoel, 2014 Central Rotherham England[29]	N = 12, 9 women, 3 men ≥80 years (range 61–95 years) All participants self-identified with sensory impairments and socially isolated	Arts-based intervention 1. GP; 2.NR; 3. Arts workshop program	Mixed Methods Study Semistructured interviews	NR Authors worked at organization providing intervention

CHC, community health center; GP, general practitioner; LTC, long-term condition; LW, link worker; NR, not reported; PCP, primary care provider; SP, social prescribing.
Two studies[26,27] included older adult participants and providers, but we provide details of participants only in this table.

years); all providers were identified as White. In the second study from Ireland,[27] interviews were conducted with two GPs and one link worker from a single GP practice.

Overall, studies focused on participants' experiences with elements of social prescribing pathways and potential mental and physical health benefits (n = 6 studies). One study, with two publications,[28,30] interviewed participants at baseline ($N = 30$) and up to 2 years later (N = 24) to provide insights into the program over time. Three studies used a mixed methods approach.[26,27,29] In the pilot study,[27] we only extracted participants' and providers' data on the acceptability/feasibility of social prescribing but not related to the process of conducting a clinical trial (e.g. retention and recruitment rates) as our aims were to understand social prescribing in practice.

Quality assessment

Supplementary Table 2 is a summary of the ratings. Overall studies were given positive scores across most of the 10 questions. In almost all studies, areas where information was unclear were for "locating the researcher culturally or theoretically" and "influence of the researcher on the research, and vice-versa, addressed."

Table 2
Reported themes and subthemes from included studies.

Study	Themes	Subtheme or subtitle
Bhatti 2020 (n = 9)	Context of care provided	**Individualized care** CHC is a **safe space**
	Processes of social prescribing	**Aligned with interests** **Supportive staff**
	Positive outcomes through engaging with social prescriptions	**Social connections** **Sense of community** **Improvement in self-management of health** **Improvement in mental health** **Positive impact on others**
Esmene 2020 (n = 3)	**Sociability** **Place** **Storytelling**	
Heijnder 2017 (n = 6)	**Life events** The **referral and intake process** **Strength and responsibility** **Self-reliance** **Social activation/participation** **Impact of SP** (Welzijn op Recept)	'I am not doing so well, of course' 'This just might be good for me' 'Getting your life back on track and finding new social contacts' 'What you need is a big stick and a stimulus to continue' 'An activity that fits your wishes and abilities and who you are'
Kellezi 2019 (n = 4)	GP perspective LW/HC perspectives Patients' perspective	**Social factors** and the need for a holistic service **Social needs and community** **Relationship with LW/HC** **Building social connections**
Kiely 2021 (n = 1)	**Feasibility and acceptability**	GPs and link worker Participants
Moffatt 2017 (n = 6)	**Impact of LTC and multimorbidity** LW Roles	**Connecting with service users** **LW approach**
	Positive impact of LW SP programme	**Health-related behaviors** **Mental health** **LTC management**
Vogelpoel 2014 (n = 4)	**Increased self-confidence** **Reduced social isolation** **Establishing new friendships, belonging and group cohesion** Artmaking, **self-value**	
Wildman 2019 (n = 5)	The **importance of the service user/LW relationship** Making and maintaining progress in BC and LTC self-management	**Nature of BC and LTC self-management** **Factors associated with making and maintaining progress in BC and LTC self-management**
	Setbacks and barriers to making and maintaining change **Fluctuating levels of engagement** with SP	

BC, behavior change; GP, general practitioner; HC, health coaches; LTC, long-term conditions; LW, link worker; SP, social prescribing.
Bolded items are the terms/wording used in the synthesis (Table 3).

Table 3
Synthesis of the included studies using the meta-aggregation approach.

Personalized experience	Providers and connectors	Behavior change	Environment	Outcomes
Address needs	***GP***	***Goal setting and maintenance***	***Place***	***Health and lifestyle***
Life events: "Participants stated that they were in a deep hole and were highly emotional or stressed. … They no longer wanted to spend so much time sitting around the house; they wanted to feel less depressed and anxious and to have something to occupy themselves with or somebody to talk to." (Heijnders and Meijs, 2018) ***Impact of LTC and multimorbidity:*** "*I want to get back to work. I was used to doing things and it is really hard not being able to do all the things I used to do, yes, and I was depressed at the time as well …*" (Moffatt et al., 2017)	***Feasibility and acceptability:*** "When asked why they had taken part, most patients cited the GP phone call as a critical step, either to encourage or reassure." (Kiely et al., 2021) [a]***Social factors:*** "This GP describes how GPs are overwhelmed and cannot provide support for social determinants of health such as social isolation, leading to patients being overlooked." (Kellezi et al., 2019) "GPs also discussed concerns about referring due to limited knowledge and understanding of the pathway and poor feedback on their referrals." (Kellezi et al., 2019) "challenges that primary care faces at a time of limited resources and increasing demand..." (Kellezi et al., 2019)	***Factors associated with making and maintaining progress in BC and LTC self-management:*** *"You can't [stop making health improvements]. You really, really can't because then it's the slippery, slippery slope back down."* (Wildman et al., 2019) ***Fluctuating levels of engagement:*** "It was quite intense when [previous link worker] was first there. This guy now [current link worker] I've only met him twice, but everything seems sorted out. All I need is somebody to keep going." (Wildman et al., 2019) ***LTC Management*:** "… service users were directed to by Link Workers were highlighted as extremely helpful, particularly the combination of expert and peer-led advice on coping and symptom management strategies." (Moffatt et al., 2017) "[SP] supported realistic, progressive and personalized goal setting. Participants' expectations of progress were therefore achievable and reflected that a long-term approach was necessary to make improvements, helping people to live with their conditions and improve their well-being." (Moffatt et al., 2017) "*I am on the road, but it is slow … work in progress… if it was easy, I would have done it years ago… I have been well impressed [with Ways to Wellness]… because they have a very practical approach and know that it has got to be incremental."* (Moffatt et al., 2017) ***Nature of BC and LTC self- management:*** "Many participants felt confident they could continue with the coping strategies and changes they had made earlier in their engagement with the intervention, or at least were growing in confidence". (Wildman et al., 2019) ***Setbacks and barriers:*** "*Well, I don't get as much support now. My first worker left, I used to see her a lot. I was put onto another one, who I've only seen about two or three times. Now she's left and they've put me onto somebody else… I feel a bit let down because my first one was brilliant."* (Wildman et al., 2019) [a]***Social needs and community:*** "They articulated how SP can help combat loneliness/isolation through patients receiving social support from others undergoing the same experiences." (Kellezi et al., 2019)	***Place:*** "Others focused on the seasonal variations of the botanical garden, but significantly all participants contemplated how change conditioned their sense of place …" (Esmene et al., 2020) "Sense of place was also bound up with safety. On the whole, walking groups provide individuals with a safe environment to pursue physical activity" (Esmene et al., 2020) "… valuable connections can be enhanced through channelling individuals towards venues they have previous links to." (Esmene et al., 2020) ***Safe space:*** "Patients described their centres as a safe space where they felt welcomed and not judged for talking about personal issues or life experiences. They credited staff for creating a space that accepted people from all walks of life." (Bhatti et al., 2021) ***Storytelling:*** "… this process demonstrates how imagined places act as a positive mechanism to establish sociability amongst walking group participants." (Esmene et al., 2020)	***Health-related behaviors:*** "*I really enjoyed it … When I first started off, I was doing five min on the cycling machine and … I had that up to* 20 min *… I was up to* 15 min *on [the cross trainer] and I was pulling weights … "* (Moffatt et al., 2017) ***Impact of SP:*** "… participants mentioned the following ways in which they benefitted from [SP]: gaining new experiences – again, meeting new people, exercising more and feeling good about it, having something to look forward to, regaining control, becoming more self-reliant, regaining perspective and experiencing improved health." (Heijnders and Meijs, 2018) ***Improvement in mental health:*** "Patients attended programmes because it improved their moods, helped them manage anxiety, or allowed them the opportunity to take a moment for themselves." (Bhatti et al., 2021) ***Improvement in self- management of health:*** "Social prescriptions helped patients learn how to manage different aspects of their health, ranging from managing a new disability to living with anxiety and depression." (Bhatti et al., 2021) ***Mental health:*** "*Before [SP], I used to just stay in. But they explained that if you get out and about, it helps you, which has* proven right ... there were times when I wasn't feeling too good, and I thought, 'I can't be *bothered,' but I've pushed myself. By the time I've got out and got back, I've felt 100% better ... my health has changed a lot …"* (Moffatt et al., 2017) ***Self-reliance:*** *"Since I started swimming, I have the feeling that my health is improving, and I feel much better. I've met new friends. I cannot join a walking group, but besides walking there are many other things I am able to do. That is a thing that I have learned lately. I have to keep that feeling."* (Heijnders and Meijs, 2018)

Person-Centered	Link worker	Motivators	Socialization
Aligned with interests**:** " *[I] could draw upon my strengths, my needs, and could be fairly flexible...*" (Bhatti et al., 2021) ***Connecting with service users:*** "Participants appreciated the flexibility and 'open door' nature of [SP], although this could be limited for those who were working." (Moffatt et al., 2017) *"It's the kind of thing if you need them, you phone them,and they'll get straight back to you. They're there, I know they're there … if something happens to me now."* (Moffatt et al., 2017) ***Individualized care:*** *"They always make you feel like–when you go there, especially the medical side, they make you feel like you have their undivided attention and they seem to be– you know, they're concerned for your wellbeing." (Bhatti et al., 2021)* ***Supportive staff:*** *"Yes, another thing that I find for which I'm very grateful and surprised is how understanding people here are. It's about one of the very few places that I feel welcome and respected as I am."* (Bhatti et al., 2021)	***Importance of the service user/LW relationship:*** "Service users described how the link worker had played an important role in introducing them to new, beneficial activities and services they would otherwise have avoided." (Wildman et al., 2019) *"They [link workers] make you feel normal, that it's just not your fault. Whatever you're feeling is fine. Whatever you say is fine."* (Wildman et al., 2019) *"They've helped me, sorted my finances and that out and they helped me with getting in touch with certain groups of people on my finances, which I was worried about at the time …."* (Wildman et al., 2019) ***LW Approach:*** "Participants consistently reported feeling at ease and relaxed with their Link Worker, which enabled them to develop an open and trusting relationship." (Moffatt et al., 2017) ***Referral and intake process:*** The participants mentioned that they appreciated the intake session and the bespoke service it provided. Most people indicated that they needed a 'big stick' and also that going somewhere alone presented a major obstacle." (Heijnders and Meijs, 2018) ***Relationship with LW/HC:*** *"And then when you go and see a counsellor, or you go and see your support worker, you have that full hour, and I wasn't really used to that at the time, that expanse of time where you can just relax and talk."* (Kellezi et al., 2019)	***Increased self-confidence:*** "Self- belief, in art-making skills as well as recognising self-potential to improve skills was a notable development..." (Vogelpoel and Jarrold, 2014) ***Positive impact on others:*** *"…it makes me feel good because I feel like I have helped other people, and that they are getting something from something that I'm doing"* (Bhatti et al., 2021) ***Self-value:*** *"Participant F was unwilling to take part in the art- making activity and notably withdrawn from the group. However, when contacted the following week… Participant F's wife explained that he had not stopped talking about the group that week and could not wait for the next session. She explained that his interest in art had been revived by attending the session …"* (Vogelpoel and Jarrold, 2014) ***Strength and responsibility***: "… participant's own strength and responsibility were frequently mentioned. The term 'own strength' refers to the power to find one's own solutions to problems." (Heijnders and Meijs, 2018) ***Social activation/participation:*** "The increase in social participation and the accompanying increase in social contacts led to a sense of satisfaction about the life they were now leading." (Heijnders and Meijs, 2018)	***Building social connections:*** *"…there are lots of people out there like me and we're like a little tribe. And there's little places we can go and hook up and just kind of like talk about anything you want, or not talk at all. And I just think it saved me."* (Kellezi et al., 2019) "…the participants highlight their disappointment in not feeling well treated or having their needs understood, especially after a lot of effort was required to make the first step ('leave the house'). Thus, rather than fostering connection, group participation seems to add to the issues rather than address them." (Kellezi et al., 2019) ***Establishing new friendships, belonging and group cohesion:*** *"Before I came to the group, I didn't see anyone, and now I meet people here and take the artwork home to do so I have something to occupy me at home too." (Vogelpoel and Jarrold, 2014)* ***Reduced social isolation:*** "the group had become a significant aspect of her social interaction, *"I'd like to come all day because it makes me feel better."* (Vogelpoel and Jarrold, 2014) ***Sense of Community:*** "… patients discussed how [SP] led to developing a sense of community at the centre; for example, it was seen as a place of belonging where people cared for one another." (Bhatti et al., 2021) ***Sociability:*** "However, in this study, an interesting feature materialised: the emergent quality of close friendships through a common narrative of diabetes as a shared health condition." (Esmene et al., 2020) ***Social Connections:*** "They valued connecting with individuals with similar lived experiences (for example, traumatic brain injury, bereavement, and so on) as this helped them feel less alone." (Bhatti et al., 2021)

[a] Quote from provider; BC = behavior change; CHC = community health centres; GP = general practitioner; HC = health coaches; LTC = long-term conditions; LW = link worker; SP = social prescribing.

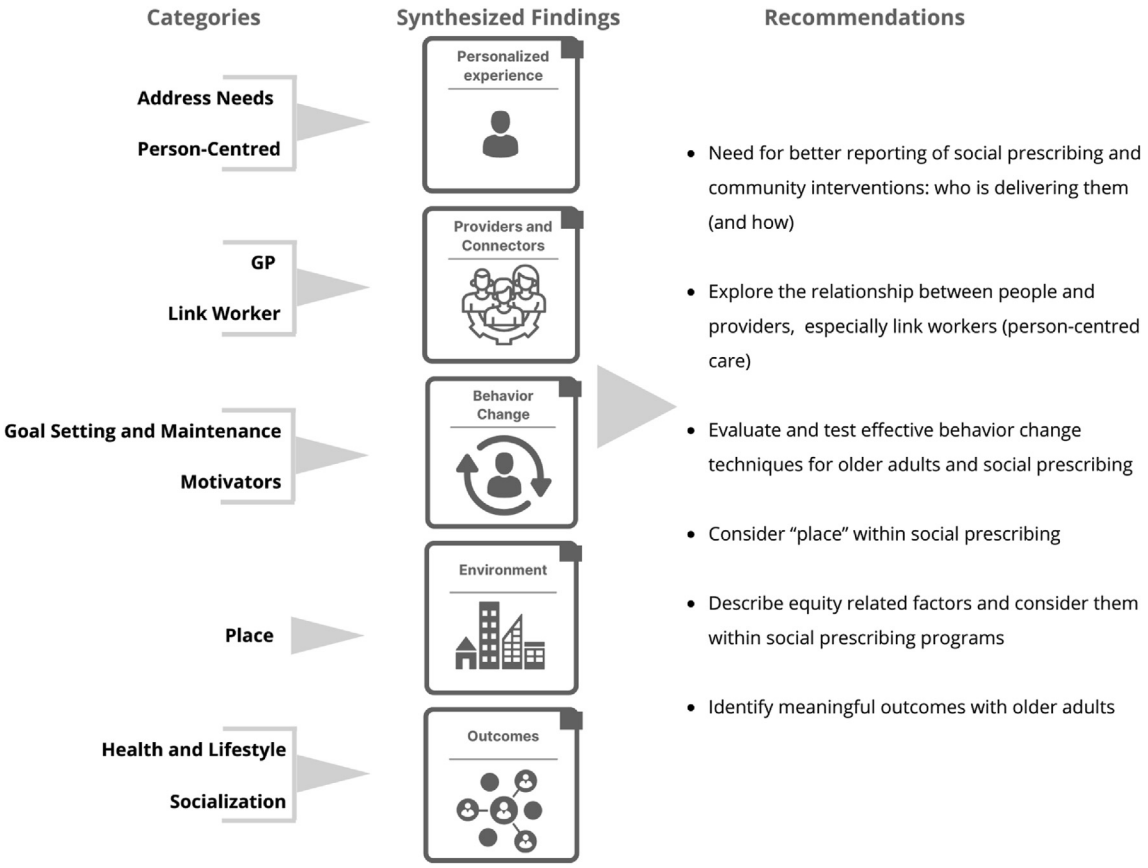

Fig. 2. Overview of results synthesized from extracted data from included studies and study recommendations. The first column includes the nine categories generated from 38 study findings, and the middle column are the five synthesized findings. The last column includes the recommendations generated from this synthesis.

Results of syntheses

After a comprehensive iterative process, we identified 38 findings from publications (with quotes) and created nine categories and five synthesized findings. Specifically, the synthesized findings were created by sorting the nine categories into groups with similar themes related to social prescribing (Tables 2 and 3 and Fig. 2). As mentioned previously, two studies[26,27] included participants and providers within their study design. The synthesized findings discussed below were based predominantly on the perspective of the older participant, but there were two synthesized findings, which included one provider perspective for each synthesized finding (Table 3).

The nine categories included addressing needs and person-cenetred care and contained elements related to the "*why*" and "*how*" for social prescribing. Together, these categories were combined into the synthesized finding Personalized Experience (six findings from three publications[3,25,28]). The findings summarized the impact of living with chronic health conditions and why a person-centered (personalized) approach was seen as positive by participants (e.g. individualized and aligned with a person's interests).

Providers and connectors (seven findings from five publications[25–28,30]) consisted of two categories: GPs and link workers or the providers who interacted within social prescribing programs or services. Within the findings, older adults described feeling reassured by their GPs' phone call to social prescribing programs and were encouraged to attend.[25,27] Older adults also expressed link workers made people feel more comfortable and at ease;[30] and link workers were able to provide more holistic care to older adults, such as by helping them navigate their finances and facilitate socialization.[30]

In the behavior change synthesized findings (11 findings from six publications[3,25,26,28–30]), we combined results related to behavior change and motivation. Studies reported behavior change techniques or strategies,[31] such as goal setting and pursuit,[28] coping plans,[28,30] and social support.[26] Studies also reported on factors that motivated older people to engage or adhere with social prescribing programs, such as having a positive effect on others,[3] and finding "*one's own solutions to problems.*"[25]

There was only one category (Place) within the environment synthesized finding (three findings from two publications[3,24]). For example, the environment older adults were in had the potential of creating a sense of safety, which further encouraged engagement in the activities, such as participation in walking groups.[24] Furthermore, some participants reported being able to create more valuable connections with their group members and the activity itself if the place was familiar.[24] The place participants were in also facilitated storytelling and thus a deepening of the social bonds they were starting to make, as seen in walking groups.[24]

Finally, the largest synthesized findings were outcomes (12 findings from six publications[3,24–26,28,29]) consisting of two categories, health and lifestyle related and socialization, which may have been impacted by social prescribing. Participants reported being involved with social prescribing activities helped them better manage their anxiety and depression while increasing their self-reliance and self-confidence from the skills they were learning.[3,25,28] Studies also reported social prescribing provided opportunities to build new social connections. Friendships resulted in older adults experiencing a sense of belonging and community

within their groups.[3,26,29] Both the improvement in self-management of their health and social connections may have acted as motivators for older adults to continue engaging in the programs and possibly played a role in positive behavior change.

Recommendations generated from this synthesis to consider for future research and practice for social prescribing and older adults are provided in Fig. 2.

Discussion

This is the first meta-aggregation synthesis of older adults' and their providers' experiences and perspectives for social prescribing. Although studies varied in their aims and outcomes, our synthesis aligns well with the pragmatic nature of meta-aggregation—to provide useful information for future research and possibly policy. We generated five main synthesized findings. One cluster was specific to health and psychosocial outcomes, while for the remaining clusters, process and outcome information exemplified two distinct components for social prescribing: the intervention and how it is delivered, enacted, and maintained at the provider and individual level (implementation factors). Beyond the findings contained with the studies, another factor for consideration in the future is the need for better reporting within social prescribing studies. Taken together, this synthesis presents useful information to guide future social prescribing research and practice focused on older adults.

Personalized experience

From an implementation perspective, many important elements should be considered when delivering social prescribing, such as ensuring older adults are involved in the development and delivery of interventions to address their specific needs.[19] Strategies should include designing programs aligned with older adults' interests and focused on a holistic view of the person[3,26] rather than care focused on diagnoses and possible impairments within the traditional medical model. A number of studies reported on the needs of older adults who were impacted by the effects of living with chronic health conditions.[25,26,28] There may be physical and psychosocial barriers to attending community-based programs in general and/or when socially prescribed, especially for older adults who may experience poor health, possibly as a result of living with a chronic health condition,[32] reduced mobility,[29] or lack of transportation.[33] Engaging older adults using a person-centered approach may facilitate uptake and maintenance of positive health behaviors.[34] Although, in general, knowledge gaps remain for the implementation of person-centered care in practice,[34–36] the results from this review highlight relationships with providers play an important role in creating a positive environment within social prescribing.[3,28]

Providers and connectors

Social prescribing programs should consider the providers and leverage their individual strengths and responsibilities working in a collaborative way, as indicated in our second synthesized finding. Primary care providers and specifically GPs play an important role in the referral and intake process. However, social prescribing programs should not aim to remove the goal of addressing unmet social needs from primary care practice,[37] that is, health providers only acting as the referral source. Furthermore, not all GPs were aware of the social prescribing referral process,[26] and organizations should work together with providers to ensure GPs have an adequate understanding of both the program and referral process.[38] This could potentially help bridge gaps in the intake process and facilitate accessible delivery of the program. Social prescribing programs could help alleviate some of GPs' pressure to address older adults' unmet social needs, especially given the challenges of limited resources and increased demands in primary care.[26] However, limited resources for primary care may also be a barrier to engaging in social prescribing.

These findings highlight the importance of relationships between link workers and older adults. Having well-trained link workers and staff in social prescribing programs may support people to feel engaged and welcomed.[39] To support the seamless integration of social prescribing within the overall healthcare system, it is essential to understand the specific role of the link worker and their perspectives and experiences with programs or services. In particular, identifying facilitators and barriers link workers may face when implementing social prescribing is key to delivering and sustaining programs in the community.[40]

Behavior change

Health and lifestyle interventions (and their implementation) rely on changing behavior, possibly at the person or provider level. However, low rates of adherence to social prescribing have been noted,[10] possibly due to physical barriers, such as limited access to transportation[33] or people's possible misunderstanding and/or expectations for social prescribing.[41] Moving forward, a greater emphasis on developing and testing strategies for social prescribing and community program referral uptake and maintenance is a priority.

Environment

A novel finding from the synthesis was the role of the physical environment. The physical place in which programs occurred plays a role in shaping the experiences of older adults for many reasons, such as familiarity and safety. Walkability or accessibility is also important, but not all communities in which social prescribing occurs are physically accessible or "walkable" for all older adults, and especially for people with mobility limitations. Our previous work explored factors related to the built and social environment and older adults' community mobility.[42] We identified areas for consideration related to physical infrastructure such as the presence and design of sidewalks, cross-walks, and related features in the neighborhood. Thus, when considering these social prescribing findings collectively, data align well with the social–ecological model[43] in which people are part of a larger community of people and community structures and policies.

This current synthesis generates hypotheses on place and its potential to encourage or deter social engagement with community programs. However, to address health inequities within communities (e.g. Quintuple Aim[44] and PROGRESS-Plus[45,46]), other equity factors should be reported and carefully considered when implementing programs.[21,44] In particular, less is known about social prescribing in some settings, such as rural and remote geographic locations. However, the social–ecological model[43] is a reminder that factors that influence social determinants of health require structural and/or policy changes, often beyond the scope of social prescribing.

Outcomes

In the last synthesized finding, we identified positive outcomes of social prescribing for older adults. The findings were generally positive and provide clues for moving forward with future research. We found similar findings in our systematic review of quantitative evidence for social prescribing and older adults.[10] Based on the synthesis of seven studies (with only one study overlapping with this review[29]), there was limited evidence social prescribing

improved some psychosocial (well-being) and physical (activity) outcomes for older adults. However, studies were generally small, with a short follow-up period, and (similar to this review) implementation details were missing, and only two-thirds of participants completed the program/returned for the final assessment.[10] As mentioned earlier, future studies need to address longer term maintenance of engagement in health behaviors. Furthermore, future research should include working with older adults and providers to identify their meaningful outcomes in future studies.

Despite the importance of these data as a first step in exploring perceptions and operationalization of social prescribing for older adults, the studies in this review are not without limitations. For example, we recognize there were few studies (from a limited number of geographic locations) available to include in this synthesis of qualitative studies. In addition, there were variations in the aims among studies. Some studies were designed to look at program/research acceptability and feasibility, whereas others were focused on outcomes and/or implementation variables. Despite these limitations of the original studies, there were common elements within publications to set the stage for the next phase of research in this area. For conducting the synthesis, we aimed to follow the meta-aggregation approach as closely as possible. We set up rules and guidelines to try to minimize bias between authors who extracted, confirmed, and synthesized data. In addition, we provided opportunities for co-authors to provide input into data synthesis. Finally, although our aim was to inform policy, because of the limited evidence, we only provide recommendations, which may be more relevant to the research community.

Conclusions

This review of qualitative evidence aimed to summarize the social prescribing experience, outcomes, and processes of older adults and their providers. Overall, the findings summarize facilitators and other implementation factors, which should be carefully considered when designing and planning accessible and equity-driven programs by community organizations, healthcare providers, and policy makers to ensure the experience is coordinated, individualized, and accessible. These data also highlight social prescribing may provide some health benefits for older adults. Finally, the information from this review could be informative for policy makers, especially those who may be in the early stages of developing a social prescribing program.

Author statements

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Ethical approval

This is a systematic review, and an ethics review was not required.

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Competing interests

None declared.

Data collection

Data were synthesized in Canada.

Authors' contributions

S.G. contributed to conceptualization, writing the original draft, reviewing and editing the article, and funding acquisition. P.S. contributed to conceptualization, writing the original article, and reviewing and editing the article. G.S.N. reviewed and edited the article. A.P. contributed to conceptualization and reviewing and editing the article. A.M.C., J.L., C.M., W.C.M., W.B.M., K.M., C.N., G.P., B.P., K.L.R., B.S., and R.J.P. contributed to reviewing and editing the article and funding acquisition. M.C.A. contributed to conceptualization, writing the original draft, reviewing and editing the article, visualization, project administration, and funding acquisition.

Appendix A. Supplementary data

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