Supplementary Appendix S1. Methods section

The review followed the Realist and Meta-narrative Evidence Syntheses-Evolving Standards (RAMESES)(20) and is registered with PROSPERO. The review was performed between September 2019 and May 2020. Throughout, we shared and discussed the study objectives and emerging findings with our stakeholder group, comprising health professionals, relevant members of the VCS and charitable organizations, and wider stakeholders (e.g., related to Clinical Commissioning Groups, Public Health England).

Data searches

We carried out two distinct literature searches, which were designed by the main researcher (SCL) with guidance of a specialist librarian (SB):

Main search

The final search strategy included combinations of search terms for the concepts 'social prescribing', 'primary health care' and 'community referral, and was informed by previous related reviews on SP (3–5) and further developed in MEDLINE (Ovid) using an iterative process of adding, removing and refining search terms. In September 2019, the following databases were searched: MEDLINE (Ovid), EMBASE (Ovid), PsycINFO (Ovid), Scopus (Elsevier), Web of Science (Clarivate Analytics), CINAHL Plus (EBSCO), PubMed (NCBI), International Bibliography of the Social Sciences - IBSS (ProQuest), The Cochrane Database of Systematic Reviews (The Cochrane Library), Campbell Collaboration, Open Grey (INISR-CNRS), King's Fund Database and LILACS (BIREME). Search results were exported to Rayyan QCRI for de-duplication using manual checking. Database searching and de-duplication was reproduced by a second reviewer (MY) for consistency and discrepancies were solved by discussion. The search strategies for each database are reproduced in full in Supplementary File p4-8. In addition, we manually retrieved citations contained in the reference lists of relevant articles included in the review and searched for grey literature in websites of national charitable organisations related to SP. Database alerts were set up to identify studies published between October 2019 and March 2020.

Additional search

During the course of the review, and through consultations with the stakeholder group, we identified policy-level dimensions (including drivers and contractual agreements) as in need of further exploration and refinement. A second search was therefore undertaken in February-March 2020 to allow the review to focus on these specific areas. The main researcher (SCL) manually searched citations contained in the reference lists of relevant articles. We also included reports recommended by members of the stakeholders' group.

Study selection and quality assessment

We included all studies published in English, French or Spanish on interventions linking adults (>18) in primary care with VCS organisations delivering activities and services relevant to patients' situation, regardless of study design (quantitative, qualitative and mixed methods) and including all SP related outcome measures. We excluded studies focusing on specific (sub)populations with special needs (e.g., learning disabilities, sensory impairment, cognitive impairment)

Two different reviewers (SCL and MY) screened the titles and abstracts of all articles using Rayyan QCRI. If compliance with the above-mentioned inclusion/exclusion criteria could not be ascertained, the full text was obtained. The main researcher (SCL) read the full text of all remaining articles and assessed their degree of relevance, conceptual richness and rigour.

For the main search, study relevance was accorded upon the involvement of link workers within the SP intervention. For the additional search, we classified studies as highly relevant if they explored the organizational and policy environment within which interventions are commissioned and delivered. We also assessed the extent of conceptualisation of programme theories that a source could potentially provide and their methodological rigour using study design specific validated tools. Supplementary File 3 provides more details on the quality appraisal criteria used to assess relevance, richness and rigour of studies included. A 10% random subsample was appraised by a second reviewer (YM) for consistency and any differences were discussed and amended accordingly.

Data extraction and analysis

The main reviewer (SCL) developed conceptual diagrams and preliminary codes during an initial familiarisation stage, which focused first on the richest sources. The manual coding framework was then transferred into NVivo 10 (QSR International) and further tested and refined by applying it to the rest of the papers (deductively) or modifying it as needed to incorporate new findings coming up in the data (inductively). The analysis involved switching reflexively from data to theory as required and continued under a realist and explanatory logic: we first defined study outcomes, and then identified how they responded to conditions and resources (mechanisms) available in specific environments (contexts). Such an analysis was repeated throughout the review and enabled us to build broad sets of context–mechanism–outcome configurations (CMOCs) that comprised explanations on how and why SP interventions 'work'. Alongside the analytic process, the main reviewer (SCL) extracted the descriptive characteristics of all included studies into an Excel spreadsheet. Both the coding and the extraction of descriptive data were reproduced in a 10% random subsample by a second reviewer (YM) for consistency. Disagreements were solved by discussion.

Data synthesis and conclusions

Text excerpts coded under specific categories in NVivo were exported into Microsoft Word documents, which provided a more appropriate format to elaborate on CMOCs and develop the narrative of the synthesis.

We inferred and wrote down explanations of why certain SP practices occur (abductive reasoning), which involved comparing and contrasting data from different studies (juxtaposition of data sources). Where findings across studies differed, further data were sought to identify explanations for why these differences occurred (reconciliation of disconfirming data). When findings across sources were consistent enough to develop patterns, they were incorporated into CMOCs (consolidation of sources of evidence)(6,7). We further refined our CMOCs by re-scrutinising those already-included studies classified as highly relevant, conceptually rich and rigorous. COMCs were then synthesised in an initial framework that was further developed through iterative discussions within the research team.

At this stage, the input from the stakeholders' advisory group proved particularly relevant, as a means of contrasting and further refining our literature-based, theory informed propositions with their practical real-world experience.

Supplementary Appendix S2. Literature searches

The final search strategy included combinations of search terms for the concepts 'social prescribing', 'primary care', 'community referral' and was informed by previous related reviews on SP (3–5) and further developed in MEDLINE (Ovid) using an iterative process of adding, removing and refining search terms.

In September 2019, the following databases were searched: MEDLINE (Ovid), EMBASE (Ovid), PsycINFO (Ovid), Scopus (Elsevier), Web of Science (Clarivate Analytics), CINAHL Plus (EBSCO), PubMed (NCBI), International Bibliography of the Social Sciences - IBSS (ProQuest), The Cochrane Database of Systematic Reviews (The Cochrane Library), Campbell Collaboration, Open Grey (INISR-CNRS), King's Fund Database and LILACS (BIREME).

Database alerts were set up to identify studies published between October 2019 and March 2020.

Database: MEDLINE

Host: Ovid.

Date searched: 27 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 129.

Strategy:

1. (social prescri* and type 2 diabetes).mp.
2. (social prescri* or community referral).mp.
3. (social prescri* or community referral or non medical referral).mp.
4. (social prescri* and primary health care).mp.
5. (social prescri* and primary care).mp.
6. (social prescri* or community referral or referral scheme).mp.
7. ((((social prescri* or community referral) and primary care) or primary health care) and diabetes).mp.
8. ((social prescri* or community referral) and primary health care and diabetes).mp.
9. 1 or 2 or 3 or 4 or 5 or 8

Database: EMBASE

Host: Ovid.

Date searched: 27 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 271.

Strategy:

1. (social prescri* and type 2 diabetes).mp.
2. (social prescri* or community referral).mp.
3. (social prescri* or community referral or non medical referral).mp.
4. (social prescri* and primary health care).mp.
5. (social prescri* and primary care).mp.
6. (social prescri* or community referral or referral scheme).mp.
7. ((((social prescri* or community referral) and primary care) or primary health care) and diabetes).mp.
8. ((social prescri* or community referral) and primary health care and diabetes).mp.
9. 1 or 2 or 3 or 4 or 5 or 8

Database: PsycINFO

Host: Ovid.

Date searched: 27 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 113.

Strategy:

1. (social prescri* and type 2 diabetes).mp.
2. (social prescri* or community referral).mp.
3. (social prescri* or community referral or non medical referral).mp.
4. (social prescri* and primary health care).mp.
5. (social prescri* and primary care).mp.
6. (social prescri* or community referral or referral scheme).mp.
7. ((((social prescri* or community referral) and primary care) or primary health care) and diabetes).mp.
8. ((social prescri* or community referral) and primary health care and diabetes).mp.
9. 1 or 2 or 3 or 4 or 5 or 8

Database: Scopus

Host: Elsevier.

Date searched: 29 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 355.

Strategy:

1. TITLE-ABS-KEY ("Social Prescri*" OR "community referral" AND "type 2 diabetes")
2. TITLE-ABS-KEY ("Social Prescri*" OR "community referral")
3. TITLE-ABS-KEY ("Social Prescri*" OR "community referral" AND "diabetes" AND "primary health care")
4. TITLE-ABS-KEY ("Social Prescri*" OR "community referral" AND "primary health care")

5. TITLE-ABS-KEY ("Social Prescri*" AND "primary health care")

Database: CINAHL Plus

Host: EBSCO.

Date searched: 30 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 165.

Strategy:

1. "Social prescri*" OR "community referral"

Database: PubMed

Host: NCBI.

Date searched: 30 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 183.

Strategy:

1. (((((((social prescri*) OR "community referral")) AND "primary health care")) OR ((social prescri*) OR "community referral"))) OR ((((social prescri*) OR "community referral")) AND diabetes)
2. (((((social prescri*) OR "community referral")) AND "primary health care")) OR ((social prescri*) OR "community referral")

Database: Web of Science

Host: Clarivate Analytics.

Date searched: 30 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 183.

Strategy:

1. ("social prescri*")
2. ("social prescri*" OR "community referral")
3. ("social prescri*" OR "community referral") *AND* (diabetes)
4. ("social prescri*" OR "community referral") *AND* ("primary health care")
5. #4 OR #3 OR #2 OR #1

Database: IBSS

Host: ProQuest.

Date searched: 30 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 11.

Strategy:

1. noft("community referral") OR noft("social prescri*")

Database: Cochrane Library

Host: Cochrane Collaboration.

Date searched: 30 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 28.

Strategy:

1. "social prescri*" in Title Abstract Keyword OR "community referral" in Title Abstract Keyword AND "primary care" in Title Abstract Keyword
2. "social prescri*" in Title Abstract Keyword OR "community referral" in Title Abstract Keyword AND diabetes in Title Abstract Keyword
3. "social prescri*" in Title Abstract Keyword OR "community referral" in Title Abstract Keyword

Database: Open Grey

Host: INISR-CNRS.

Date searched: 30 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 1.

Strategy:

1. "social prescribing" OR "community referral"

Database: LILACS

Host: BIREME.

Date searched: 30 September 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 93.

Strategy:

1. (tw:("community referral"))
2. (tw:("community referral")) AND (tw:("social prescribing"))

Database: King's Fund

Host: The King's Fund.

Date searched: 3 October 2019.

Searcher: Sara Calderón, Yasmin Milner.

Hits: 218.

Strategy:

1. "social prescribing"
2. "community referral" AND "social prescribing"

Supplementary Appendix S3. Quality appraisal criteria

Relevance

Main search:

- High relevance: studies that evaluated an intervention comprising a comprehensive assessment of patients' circumstances and needs by a link worker or social prescriber.
- Low relevance: studies evaluating an intervention that did not comprise an assessment by a link worker or social prescriber and where the activities 'prescribed' in general practice were pre-defined from the outset, such us, Arts of Prescription or Exercise on Referral Schemes.

Additional search:

- High relevance: studies that focused on the organizational and policy environment within which SP interventions are commissioned and delivered.
- Low relevance: studies that did not focus on the organizational and policy environment within which SP interventions are commissioned and delivered.

Richness (based on the criteria proposed by Ritzer (8) and Roen et al. (9))

- Conceptually rich: studies with well-grounded and clearly described theories and concepts.
- Conceptually thick: studies with rich description of a programme was provided, but without explicit reference to the theory underpinning it.
- Conceptually thin: studies with weak programme description where discerning theory would have been problematic.

Rigour

- Critical Appraisal Skills Programme (CASP) for qualitative studies, systematic reviews, randomised controlled trials (RCT), case control studies, cohort studies and economic evaluations.
- National Institutes of Health (NIH) quality assessment tool for before-and-after studies with no control group and cross-sectional studies
- Mixed Methods Appraisal Tool (MMAT) for mixed methods studies

Supplementary Tables S1. Characteristics of studies included.

Table S1a. Study characteristics main search (n=68)
Table S1b. Study characteristics of papers identified separately (n=59)
Table S1c. Study characteristics additional search (n=4)
Table S1d. Study characteristics of papers identified through database alerts (n=9)

Table S1a. Study characteristics of papers identified via database main search (n=68)

Authors (year)	Country	Type of paper	Study Design	Sample/Setting	Intervention	Objective	Outcome measures
Rempel ES, et al. (2017) (10)	UK	Research (published paper)	Literature Review	41 studies	A referral programme linking patients in health services with community-based activities	To identify the aims of social referral initiatives and identify the measures used to evaluate	• Cost savings • Resource reallocation • Mental, physical and social well-being (Warwick-Edinburgh Mental Well-being Scale - WEMWBS)
Woodall J, et al. (2018) (11)	UK	Research (published paper)	Mixed Methods Study	Patients (N 342) referred to a SP programme operating in an area within a large city	Referral to a 'Well-being Coordinator' (link worker) who offered support and advice on local community-based groups and services (e.g. counselling, physical fitness classes, finance/debt advice)	To understand the outcomes of a SP service and the processes which supported SP delivery	• Quant: Mental wellbeing (WEMWBS), EQ-5D (which covers mobility, self-care, usual activities, pain/discomfort and anxiety/depression), social networks (Campaign to End Loneliness Measurement Tool), use of GP services • Qual: SP staff and users' perspectives on the service

Darnton P, et al. (2018) (12)	UK	Research (web-based report)	Mixed Methods and Economic Evaluation	Patients (N 595) referred to a SP service provided by a voluntary sector partnership across five localities	Referral to a 'Making Connection Coordinator' (link worker) who undertook a guided conversation and provided advice on community-based resources over 3 months (e.g. finance/debt advice, befriending services, physical activity) (*Making Connection SP*)	To evaluate health- and cost-related outcomes of a SP service	• Quant: Questionnaires measuring health status, health confidence, personal wellbeing, experience. • Qual: strength of relationships, practical assistance, match between client and service, service infrastructure
Pescheny J, et al. (2018) (13)	UK	Research (published paper)	Qualitative Study	Patients (N 10), GPs (N 3) and navigators (N 2) involved in a SP programme delivered across 4 general practices	Referral to a navigator (link worker), who contacted primary care patients to arrange an initial appointment held in surgeries. Navigators could refer service users onwards to a maximum of 12 free community sessions.	To explore stakeholders' views on factors influencing uptake and adherence to SP	• Factors affecting uptake and adherence: patients' trust in GPs and navigators, service accessibility, service support, patients' expectations, etc.
Bickerdike L, et al. (2017) (5)	UK	Research (published paper)	Literature review	15 studies	Programmes linking patient in primary care setting with a link worker or facilitator of SP	To assess evidence for SP effectiveness	• Uptake and attendance • Health and well-being (WEMWBS, HADS, GAD-7, PHQ-9, CORE-OM, WSAS, GHQ-12, COOP/ WONCA) • Healthcare usage outcomes • Patients', referrers' experience • Costs
Ferguson K (2018) (14)	UK	Research (web-	Cross-sectional survey study	47 voluntary and community sector organisations	Initial assessment by a Social Prescriber (link worker) (telephone or in-person) and	To inform the evaluation of a local SP service by	• Number of referrals • Service awareness

		based report)		involved in a local SP service	onwards referral to community-based sources of support (e.g., exercise, weight management, learning and employment)	exploring the experiences of the local VCS	• Communication between stakeholders • Challenges delivering SP
Loftus AM, et al. (2017) (15)	UK	Research (published paper)	Before-and-after study	Patients (N 68) over 65 with a chronic condition who attended their GP frequently or had multiple medications, referred to a SP programme delivered in an urban practice	Referral to a SP coordinator (link worker) for assessment and selection of a 12-week community-based programme (e.g social clubs, counselling, exercises classes, etc.)	To evaluate the impact of SP on general practice workload and polypharmacy	• Participants' contacts with GPs • Number of repeat prescriptions per patient
Prior F, et al. (2019) (16)	UK	Research (published paper)	Before-and-after study	Participants (N273) in an 'Exercise on Referral' programme delivered in a socio-economically deprived urban area	6-month exercise scheme, with 4 routine contact points, hosted within local leisure centres. Consultations were delivered by exercise professionals.	To evaluate the long-term impact (12 mo) of an EoR scheme on self-reported physical activity and health-related outcomes	• Physical activity level (IPAQSF) • Health-related quality of life (EQ-5D-3L, EQ-5D VAS) • Mental well-being (WEMWBS) • Clinical data (BMI, BP, alcohol consumption, and smoking status)
Stewart EE, et al. (2014) (17)	USA	Research-based toolkit (published paper)	Case Study	Primary care practices (N unknown) that participated in a pilot project	A toolkit for identifying and evaluating accessible and affordable community resources, establishing productive, bidirectional	To inform the development and implementation of community referral/SP	• An evidence-based toolkit for enhancing and evaluating inter-sectoral partnership between primary care and the VCS in the management of obesity

					relationship and referral processes from primary care, and enhancing engagement of patients with obesity and/or prediabetes.	programmes relevant to obesity and prediabetes	
Kilgarriff-Foster A, et al. (2015) (18)	UK	Research (published paper)	Literature review	24 studies	Short-term intermediary services facilitating the engagement of patients with psychosocial needs with community-based non-clinical support services	To explore the key components and potential impact of SP programmes	• Health and well-being (WEMWBS, HAS, GHQ) • Health service use • Cost-effectiveness • Feasibility, acceptability
Chatterjee HJ, et al. (2018) (19)	UK	Research (published paper)	Literature review	86 studies	Schemes linking patients in primary care with community non-clinical interventions (including arts, education, exercise)	To evaluate the effectiveness of UK SP schemes	• Mental well-being (GAD-7, GHQ, PHQ-9, WEBWMS, SWEBWMS, HADS) • Health and well-being (CO-OP/WONCA, SF-36, DTFS) • Social support • Cost effectiveness • Health service use
Chesterman D, et al. (2018) (20), linked to Mistry B, et al.	UK	Research (published paper)	Qualitative Action Research Study	Users and practitioners involved in commissioning or providing a SP pilot available in 4 urban general practices	Assessment by a Community Support Coordinator (link worker) and referral to community-based services (e.g. physical activities, counselling, advice around debt, housing, etc.) (Prescription Plus)	To evaluate and strengthen a local SP initiative, taking a 'learning through doing' approach	• Participants' concerns and experiences • Co-operation between stakeholders • Service sustainability
Dayson C (2017) (21)	UK	Research (published paper)	Mixed Methods Case Study	Users (N 108), commissioners (N 7) and providers (N	Referral to an 'Advisor' (link worker) for assessment of patients' support needs and	To shed light on the epistemological and methodological challenges	• Quant: use of hospital resources (inpatient admissions, A&E

				20) involved in a SP pilot covering a local authority area	onwards referral to pump-primed or wider voluntary and statutory services	of social innovations, such as SP	Attendance, Outpatient appointments) • Qual: patient well-being and independence, sustainability of the VCS, collaboration
Ferguson K, et al. (2018) (22), linked to (14)	UK	Research (web-based report)	Mixed Methods Evaluation Study	Stakeholders involved in a borough-wide SP service covering 37 general practices	Initial assessment by a Social Prescriber (link worker) (telephone or in face-to-face) and onwards referral to community-based sources of support (e.g exercise, weight management, learning and employment)	To assess the impact of a SP roll-out in service users, general practices and community organisations	• Quant: health and wellbeing (MYCaW), service-level data (number of referrals, etc.), users' profile, costs data • Qual: service awareness, coordination, users' wellbeing, service sustainability
Blickem C, et al. (2013) (23)	UK	Research (published paper)	Qualitative interview and focus group study	People with long term conditions attending health-related support groups and community centres in a local authority area	A community referral tool (PLANS) to tailor community-based resources to referred patients with long term conditions	To assist the development of a SP intervention designed to promote engagement and improve access to health-relevant resources	• Experiences and priorities of people with long term conditions (isolation, safety, linking to support, potential roles of the VCS, access to health education, practical support, lifestyle concerns, etc.)
Elston J, et al. (2019) (24)	UK	Research (published paper)	Before-and-after study	Older patients (>50) (N 86) with multiple long-term conditions referred to a SP programme operating across 3 localities	Referral to a Well-being Co-ordinator ('holistic' link-worker) for a 12-week support intervention, including resilience-focused coaching and practical support to navigate and access local services.	To evaluate the impact of link-workers on service users' well-being, activation and frailty, as well as service utilisation and associated costs.	• Health and wellbeing (Well-being Star, WEMWBS, RCFS) • Self-management (Patient Activation Measure) • Health and social care service • Costs data

Whitelaw S, et al. (2017) (25)	UK	Research (published paper)	Qualitative Case Study	The steering group (N 12), wider primary care team (N 10) and members of various community groups (N 8) involved in a SP scheme delivered across 2 general practices	Referral to a link worker for patients' assessment and onwards referral to available community resources	To conduct a process-based evaluation of the inception and early implementation of a SP initiative	• Primary care perspectives: information governance, coordination between stakeholders, resource sufficiency, etc. • VCS perspectives: service quality, accessibility, training needs, etc.
White JM, et al. (2017) (26)	UK	Research (published paper)	Qualitative Interview Study	18 health professionals and 15 representatives of third sector organisations in socio-economically diverse, and mix of rural and urban locations	SP schemes linking patients in primary care with different community-based services (e.g. a 'lifestyle referral' scheme, support for carers, etc.)	To analyse the quality of the relationships between primary healthcare professionals and VCS practitioners drawing on social capital theory	• Prescribers' views: service awareness, professional roles, accountability • Providers' views: barriers and facilitators to collaborative working
Polley M, et al (2017) (27)	UK	Research (web-based report)	Literature review	14 studies	Referral pathways connecting patients in primary care with a 'link worker' and relevant non-medical services in the third sector	To appraise the current evidence as to whether SP reduces the demand for health services and is cost effective	• Health service use • Social and economic impact of SP (value for money assessments, SROI calculations)
Dayson C, et al. (2018) (28)	UK	Research (web-based report)	Before-and-after study	Patients referred by their GP to a SP service delivered in an urban area	Referral to a 'community connector' (link worker) for assessment of patients' needs and interests, and	To evaluate the early stages of a SP service measuring its impact on patients' health and	• Health and mental wellbeing (EQ-VAS, EQ-5D, SWEMWBS) • Social connectedness • Self-care

					identification of relevant local services and activities (*Community Connectors SP*)	demand for primary and secondary care services	• Primary and secondary care service use
Martín-Borràs C, et al. (2018) (29)	Spain	Research (published paper)	Randomized Controlled Trial	Patients aged 18–85 with at least one chronic disease, who self-reported being insufficiently active, referred to community-based exercise programmes by primary care workers in 10 practices	A 12-week standardised exercise on referral scheme with mechanisms to enhance social support (*Exercise on Prescription – EoP*)	To assess the effectiveness of an exercise referral scheme in establishing adherence to physical activity	• Self-report physical activity (International Physical Activity Questionnaire) • Stages of change • Social support to physical activity practice
Husk K, et al. (2019) (30)	UK	Research (published paper)	Realist Review	109 studies in the first phase, 34 studies in the second phase	Any referral pathway linking patients in primary care with activities undertaken in the community	To explore whether different methods of SP referral and supported uptake do (or do not) 'work'	• Barriers and facilitators to Enrolment, Engagement and Adherence
Pescheny JV, et al. (2019) (31)	UK	Research (published paper)	Before-and-after study	Patients in primary care referred to a SP programme (12 sessions) provided by third sector organisations	Referral to a link worker for initial assessment, identification of non-medical needs, motivational interviewing, continuous personalised support and referral to community-based	To assess the change in energy expenditure levels of service users after participating in a SP programme	• Changes in energy expenditure levels using the International Physical Activity Questionnaire (IPAQ)

					activities (12 sessions, free of charge)		
Pescheny JV, et al. (2019) (32)	UK	Research (published paper)	Systematic Review	16 studies	Services in primary care linking patients with non-medical needs to sources of support provided by the community and voluntary sector	To assess the evidence base for SP programmes based on primary care and involving navigators	• Health and wellbeing (WEMWBS, SWEMWBS, HADS, PHQ9, GAD7, MYMOP, GHQ-12, COOP/ WONCA) • Health-related behaviours • Self-concepts • Social contacts (Friendship Scale score, Duke-UNC FSSS) • Day-to-day functioning
Carnes D, et al. (2017) (33)	UK	Research (published paper)	Mixed Methods Study	Socially isolated patients referred to a SP programme delivered across 22 primary care general practices in a mixed socio-economic, multi-ethnic area	Referral to a SP coordinator ('link worker') for assessment, mutual agreement of a well-being plan over a maximum of 6 sessions and linkage into community organisations and services.	To investigate whether a SP service could be implemented in a general practice setting and evaluate its effect on patients' well-being and primary care service utilisation	• Quant: mental wellbeing, primary health care resource use • Qual: patients' satisfaction with the service, appropriateness and timing of referrals, barriers and facilitators to engagement, relationship between link workers and patients.
Thomson LJ, et al. (2015) (34)	UK	Research (web-based report)	Literature review	35 studies	Any referral mechanism linking patients with non-medical sources of support within the community	To provide definitions, models and notable examples of SP schemes and to assess whether and how they have been evaluated	• Self-esteem, confidence, motivation • Mental wellbeing • Lifestyle • Primary care service use • Sociability, communication skills
Moffatt S, et al. (2017) (35)	UK	Research (published paper)	Qualitative Interview Study	Adults with long-term conditions referred to a SP prescribing	Link Worker SP programme comprising personalised support to identify meaningful health and wellness goals,	To describe the experiences of patients with long-term conditions referred to a SP	• Self-confidence, self-reliance, resilience, personal responsibility • Health related behaviours (weight management, exercise, diet)

				programme delivered in a socio-economically deprived area across 17 general practices.	ongoing support to achieve agreed objectives and linkage into appropriate community services (e.g. welfare rights advice, walking groups, physical activity classes, arts) (*Ways to Wellness*)	programme and identify its impact on patients' health and well-being	• Mental wellbeing • Long term condition management
Pons-Vigués M, et al. (2019) (36)	Spain	Research (published paper)	Descriptive Qualitative Research	Healthcare attendees and health professionals from 7 different primary care centres involved in the intervention	Individual lifestyle recommendations by primary care clinicians, and referral to groups sessions and community-based activities	To evaluate the implementation and development of a complex intervention (involving SP) and its impact in health-promoting behaviours	• Acceptability • Appropriateness • Feasibility • Sustainability • Penetration (changes implemented) • Suggestions for improvement
Wigfield A, et al. (2015) (37)	UK	Research (web-based report)	Mixed Methods Study	Referrers from primary care and older patients (N 247) referred to a SP programme delivered across 3 localities	A SP scheme linking older patients in primary care with community activities delivered by third sector organisations (*Fit For the Future SP*)	To evaluate the potential impact of a SP initiative in the outcomes of older people	• Quant: mental wellbeing (WEMWBS), lifestyle (physical activity, diet, alcohol, cigarette), clinical data (BMI, waist circumference), social networks, satisfaction with life, self-management. • Qual: health care professionals' expectations of SP, suggestions for improvement, lessons learned.
Arsenijevic J, et al. (2017) (38)	The Netherlands	Research (published paper)	Systematic Review and meta-analyses	37 studies	Schemes linking patients in primary care with exercise professionals organising physical activity programmes in	To outline the differences in the design of EoP schemes, and in the adherence rate and self-	• Adherence to programme • Self-reported physical activity (using 7-day Physical Activity Recall questionnaire)

					the community (*Exercise on Prescription - EoP*)	reported level of physical activity between users.	
Campbell F, et al. (2015) (39)	UK	Research (published report)	Systematic Review and Economic Evaluation	8 studies	Referral to exercise professionals providing supervised exercise training in the community (*EoP*)	To assess the clinical effectiveness and cost-effectiveness of exercise referral schemes compared with usual care.	• Clinical effectiveness (self-reported physical activity) • Cost-effectiveness
Lindau ST, et al. (2016) (40)	USA	Research (published paper)	Before-and-after Study (including cross-sectional surveys)	Participants and providers involved in a pilot community referral system operating across 33 clinical sites	A community referral system, consisting of: a youth workforce that conducted an annual community resource census; Community Health Information Specialists who supported cross-sector resource navigation; and a health information technology for prescribing community resources.	To evaluate the implementation of a community referral system, examining process-based outcomes	• Resource referral patterns • Characteristics of the resources accessed • Participants' and providers' experience • Providers' attitudes towards patients' social needs (RWJF survey)
Hamilton-West K, et al. (2019) (41)	UK	Research (published paper)	Evaluability Assessment Study	Stakeholders involved in two SP programmes. One of them delivered from primary care and the other from secondary care settings.	Two SP services linking patients from health services with community-based resources (*Community Wellbeing Service, Encompass SP Service*)	To inform the design and evaluation of SP schemes through an Evaluability Assessment approach.	• Recommendations to allow for future service evaluation (e.g., related to data monitoring systems, information governance, etc.)
Wildman JM, et al. (2019)	UK	Research (published paper)	Qualitative Follow-up Study	Users (N 24) of a link-worker SP service delivered	Link Worker SP programme comprising personalised support to identify meaningful	To explore experiences of SP among people with long-term conditions one	• Service users' relationships with link workers

(42) linked to (35)				in a socio-economically deprived area across 17 general practices	health and wellness goals, ongoing support to achieve agreed objectives and linkage into appropriate community services (e.g. welfare rights advice, walking groups, physical activity classes, arts) (*Ways to Wellness*)	to two years after their initial engagement with the service.	• Factors involved in making progress in behaviour change and long term condition management • Setbacks and barriers to maintaining change • Fluctuating levels of engagement
Hanlon P, et al. (2019) (43)	UK	Research (published paper)	Qualitative Interview Study	Patients (N 12) referred to a Links Worker SP Programme delivered across general practices in areas of high socioeconomic deprivation	Referral to a community link worker for one-to-one assessment, support and linkage into relevant community resources (*'Deep-End' Links Worker Programme*)	To explore the utility of Self-Determination Theory in understanding the impact of a Links Worker SP Programme in patients' wellbeing	• Overall perceived improvement in daily life • Barriers and facilitators to improvement (related to relatedness, competence, autonomy, beneficence and regulation of behaviour)
Wildman JM, et al. (2019) (44) linked to (42)	UK	Research (published paper)	Qualitative Interview and Focus Groups Study	Link workers (N 41) involved a social prescribing scheme operating in a socioeconomically deprived area across 17 general practices	Link Worker SP programme comprising personalised support to identify meaningful health and wellness goals, ongoing support to achieve agreed objectives and linkage into appropriate community services (e.g. welfare rights advice, walking groups, physical activity classes, arts) (*Ways to Wellness*)	To explore link workers' own definitions of their role in SP and the skills and qualities identified by themselves as necessary for effective patient linkage	• Realities and complexities of the link worker role • Barriers to performing the role (referral challenges, onward referral challenges, boundary setting).

Swift M (2017) (45)	UK	Research (published paper)	Mixed Methods Study	Stakeholders involved in a community-centred model of health delivered across 17 GP practices in two neighbouring towns with great health inequalities	A co-created community-centred model of health, including a pathway to link patients with community-based activities and services (Community Wellbeing Practices model SP)	To describe and reflect on the co-design and implementation of a community-centred model of health (including SP)	• Quant: mental wellbeing (SWEMWBS, PHQ9, GAD7), health status (EQ5D) • Qual: health-related goals, satisfaction levels, social connectedness, etc.
Wessex Academic Health Science Network (2017) (46)	UK	Research (web-based report)	Mixed Methods Study	Stakeholders involved in 8 different SP programmes covering a population of 1 million people	8 SP schemes linking patients in primary care with community-based resources and services	To evaluate the impact of a SP programme in patients' wellbeing and service utilisation, and support its development and spread	• Quant: patient reported outcomes (health status, health confidence, wellbeing, experience of service), staff reported outcomes (work wellbeing, job satisfaction), health service use, costs. • Qual: social connectedness, continuity of care, satisfaction levels, etc.
Beech R, et al. (2017) (47)	UK	Research (published paper)	Realist Evaluation (mixed methods design)	SP recipients, carers, link workers and service providers involved in a SP initiative delivered in one large city GP practice and a specialist centre based in a	Assessment by a link worker at the GP surgery or hospital. Onward referral to community services and provision with relevant information and support (*The Wellbeing Coordinator service*)	To assess the outcomes of the SP service in terms of benefits experienced by recipients and carers and to understand how care processes are perceived by link workers and other service providers	• Quant: mental wellbeing (SWEMBS, ONS) • Qual: users', carers', service providers' and health workers' perspectives on the service (satisfaction, perceived strengths and limitations, expectations, etc.)

				community hospital			
Coan J (2016) (48)	UK	Research (web-based report)	Mixed Methods Research	Users, link workers, primary care workers and community providers involved in a SP programme delivered across 6 general practices	Referral to a SP coordinator (link worker) for patient assessment and provision of onwards supported referral to relevant community-based services (e.g. lifestyle support, social groups, social welfare)	To describe a SP programme and explore stakeholders' perception on its potential impacts	• Quant: satisfaction level (end-of-service questionnaire to patients and healthcare workers'), mental wellbeing (SWEMWBS) • Qual: feedback from patients and community service providers (satisfaction, perceived strengths and limitations, expectations, etc.)
Bertotti M, et al. (2015) (49)	UK	Research (web-based report)	Mixed Methods Study (including an Economic Evaluation)	Stakeholders of a SP programme delivered across 23 general practices and 85 statutory and voluntary groups in a socio-economically diverse urban area	Referral to a trained SP coordinator (link worker) for assessment and supported, personalised linkage into community-based resources	To evaluate the impact of a SP programme in patients' wellbeing, health service utilisation and associated costs	• Quant: general health and wellbeing, mental wellbeing (anxiety and depression), active engagement in life, A&E visits, costs. • Qual: users' experience with the service (satisfaction, expectations, etc.)
Skivington K, et al. (2018) (50)	UK	Research (published paper)	Qualitative Interview Study	VCS representatives (N 30) and link workers (N 6) involved in a SP programme delivered in socio-economically deprived urban areas	Referral to a trained community link worker to support patients in accessing community organisations (*Links Worker Programme*)	To investigate potential factors associated with successful implementation of a SP programme	• The role and capacity of link workers • Contextual factors that affect SP implementation • Benefits and challenges to collaborative working

Dayson C, et al. (2019) (51)	UK	Research (published paper)	Qualitative Case Study	Public health service commissioners, non-profit providers, investment managers and investors of 2 distinct SP interventions in post-industrial urban settings	2 SP interventions. One financed through a Social Impact Bond (New Public Management model) and the other one financed in a more conventional way (New Public Governance)	To compare the design and implementation of 2 SP programmes with different financing mechanisms	• Focus and emphasis of each model • Relationship between the state and external stakeholders • Resource allocation • Governance and accountability mechanisms
Southby K, et al. (2018) (52)	UK	Research (published paper)	Qualitative Case Study	Primary care workers and representatives of voluntary and community sector organisations engaged in collaborative programmes in socio-economically deprived urban areas	4 SP schemes linking patients in primary care with activities provided by the voluntary and community sector (e.g. weight management, diet, exercise, employability)	To add to the knowledge base around collaborative practice between general practices and voluntary and community sector organisations by examining the factors that aid or inhibit such collaboration	• Modes and outcomes of GP- VCS collaboration • Facilitators to GP-VCS collaboration (equitable relationships, communication stability, etc.) • Barriers to GP-VCS collaboration (policy contingencies, misconceptions, etc)
Heijnders ML, et al. (2018) (53)	The Netherlands	Research (published paper)	Qualitative Interview Study	Patients (N 10) with psychosocial problems referred from 4 primary care centres to a	Referral to social well-being organisation, followed by an 'holistic', personalised assessment by a well-being coach based on social activation theory. Onwards	To determine what happens in the chain of the SP and what changes the participant experiences in terms of social participation.	• Participants' life events • Insights on the referral and intake process • Personal strength and responsibility • Self-reliance • Social activation/participation

				social well-being organisation	linkage into community-based activities (e.g. cooking classes)		
Centre for Reviews and Dissemination . University of York (2015) (54)	UK	Research (web-based report)	Rapid Review	22 studies	SP schemes linking patients in primary care with sources of support within the community	To review the effectiveness and cost effectiveness of SP programme	• Mental and physical wellbeing (WWQ, PHQ9, GAD7, IPAQ, HAD, COOP chart, WEMWBS, WSAS, Dynamic Observation scale) • SROI analysis • Cost-effectiveness
Tierney S, et al. (2019) (55)	UK	Research (published paper)	Cross-Sectional Study	162 clinical commissioning groups across England	Schemes linking patients into activities or organisations that can help address non-medical needs	To determine how 'care navigation' (SP) is interpreted and currently implemented by clinical commissioning groups	• Provision of care navigation • Characteristics of patients for whom the service is available • Referral method • Service evaluation and monitoring
Pescheny JV, et al. (2018) (56)	UK	Research (published paper)	Literature Review	8 studies	Referral schemes that link patients in primary care with local services and activities provided by the third sector (community, voluntary, and social enterprise sector)	To identify factors that facilitate and hinder the implementation and delivery of SP services based in general practice and involving navigators	• Facilitating factors: implementation approach, organisation and management, attitudes, support and supervision, communication, organisational readiness, staff engagement, infrastructure • Barriers: leadership, implementation approach, economic climate and funding, shared understanding, staff engagement and turnover, patient engagement, infrastructure, quality appraisal

Pilkington K, et al. (2017) (4)	UK	Research (published paper)	Scoping Review	40 studies	SP schemes linking primary care patients (including those with type 2 diabetes or prediabetes) to nonmedical community services	To characterize, collate, and analyse the evidence from evaluation of SP for type 2 diabetes in the United Kingdom and Ireland	• Overview of projects • The range of interventions • Project evaluation and outcomes (related to health behaviours, general and mental wellbeing, disease risk, health education, etc.)
South et al. (2008) (57)	UK	Research (published paper)	Qualitative Case Study	Primary care workers (N 8) and patients (N 10) referred to SP delivered across 2 general practices located in disadvantaged urban areas	Up to 3 appointments with a link worker to discuss needs and identify appropriate sources of local support (e.g. volunteering, debt advice, luncheon clubs, etc.)	To explore the concept of SP and discuss its value as a public health initiative embedded within general practice	• The potential of SP on (1) Extending primary care, (2) Addressing public health issues, (3) Building health alliances
Bertotti M, et al. (2018) (58) linked to (49) (33)	UK	Research (published paper)	Realist Evaluation (Mixed Methods Study)	Users, commissioners, and primary care workers involved in a SP scheme delivered across 23 practices in a socio-economically diverse urban area	Referral to a trained SP coordinator (link worker) for assessment and supported, personalised linkage into community-based resources	To evaluate a SP pilot, by unpacking the contextual factors and mechanisms that might influence its implementation and development	• Relevant contextual factors and mechanisms related to (1) GP referral process, (2) Consultation with the link worker, (3) Interaction with VCS organisations
Bragg R, et al. (2017) (59)	UK	Research (web-based report)	Evidence Synthesis	12 England-based SP services	SP services that are well established, have a good track record in terms of numbers of patients involved, have been evaluated, are operating at	To develop an understanding of the use of nature-based-interventions within social prescribing services and	• Characteristics of SP services (including referral and funding mechanisms) • Characteristics of service users

					scale (e.g. with at least one CCG) and show the diversity of SP models.	provide suggestions for good practice	• Evidence of effectiveness and cost effectiveness (general wellbeing, health service use, SROI)
Bungay H, et al (2010) (60)	UK	Research (published paper)	Evidence Synthesis	Grey literature on UK-based Arts on Prescription (AoP)	SP schemes linking patients in health services with community-based art initiatives facilitated by artists (*AoP*)	To review current AoP initiatives in the UK and reflect on the challenges of providing evidence for their effectiveness	• Policy context for AoP • Evidence on effectiveness: mental well-being (WEMWBS, HADS), quality of life, social inclusion • Existing challenges for AoP
Grant C, et al. (2000) (61)	UK	Research (published paper)	Randomised Controlled Trial	161 patients identified by their GP as having psychosocial problems in 26 general practices with varied socioeconomic characteristics	Referral to a liaison organisation for assessment of patients' needs and linkage into voluntary organisations	To compare wellbeing and resource utilisation among patients referred to a SP scheme, with patients receiving routine general practitioner care.	• Primary outcomes: psychological wellbeing (HAD scale), social support (Duke-UNC FSS questionnaire) • Secondary outcomes: quality of life (COOP/WONCA, delighted-terrible faces scale), costs (service use, prescribing, referrals)
Jensen A, et al. (2019) (62)	Denmark	Research (published paper)	Qualitative Study	Patients (N 7) with mild-moderate mental health problems referred to an AoP programme delivered across a local authority area	Referral from a health service to a 10-week project offering a variety of arts and cultural activities averaging 2 hour sessions 2.5 times a week (Culture Vitamins – AoP)	To evaluate and explore the impact of an AoP programme in participants' mental health wellbeing	• Mental wellbeing (sense of coherence, sense of meaning) • Capacity to overcoming challenges (motivation, self-esteem, resilience, ability to socialize) • Moving from self-critical to self-caring
Jensen A, et al. (2017) (63)	Sweden, Norway,	Research	Rapid Review	34 studies	Referral from a health service to community-based arts	To provide an overview of how AoP is delivered in	• Institutional context: political support and recognition, existence of specific research centres

	Denmark, UK				activities (Arts on Prescription – AoP)	Scandinavian countries and the UK	• Evidence for AoP effectiveness: quality of life, work ability, self-confidence, motivation, social and communication skills
Maughan DL, et al (2016) (64)	UK	Research (published paper)	Observational Cohort Study	Patients from an urban primary care centre, diagnosed with common mental health conditions and referred to a SP service	Referral to a 'link worker service' aimed at connecting people with community organisations. Patients were discharged when they were engaged in the community (maximum of 20 appointments) (Connect Project)	To assess the effects of a SP service on healthcare use and the subsequent economic and environmental cost	• Number of GP appointments • Prescriptions of psychotropic medications • Number of secondary-care referrals
Redmond M, et al. (2018) (65)	UK	Research	Qualitative Follow-up Study	Individuals (N 1297) referred to an art-related SP programme from primary care settings	Referral to an 8- or (formerly) 10-week course of creative activities, led by a local artist.	To explore the impact of an arts referral programme in service users' well-being	• Social connectedness • Physical and mental well-being • Self-management
Age Concern Support Services (2011) (66)	UK	Research (web-based report)	Mixed methods (Qualitative case studies, before-and after survey)	Older people who had mild-moderate depression or were socially isolated referred to a SP programme delivered across 12 GP practices	In-depth assessment of the older person's social, emotional and practical support needs, and onwards referral to Age UK services (including befriending, social groups, benefit checks and Fit as a Fiddle classes)	To assess the effectiveness of social prescribing for older people with mild to moderate depression or who are lonely and socially isolated	• Quant: mental well-being (WEMWBS) • Qual: users' experience with the service (satisfaction, expectations, etc.)

Stickley T, et al. (2013) (67)	UK	Research	Qualitative follow-up study	10 SP users	Referral to a 8- or (formerly) 10-week course of creative activities, which are led by a local artist in community locations. There are usually no more than 10 participants per group. (AoP)	To explore the long-term effects of an 'Arts on Prescription' SP service	• Self-confidence, feelings of self-worth, self-perception • Social and communication skills • Motivational and aspirational changes
Stickley T, et al. (2012a) (68)	UK	Research	Qualitative Interview Study	10 referrers from primary care, secondary mental health care and the voluntary sector who had referred more than 1 person to SP	Referral to a 10-week blocks of art sessions led by professional artists in community locations. Usually with no more than 10 participants per group (AoP)	To investigate the views of referrers to AoP regarding the quality and effectiveness of the service	• Perceived impact of AoP on service users (personal benefits, social benefits) • Contextual views (policy environment, practical concerns)
Stickley T, et al. (2012b) (69)	UK	Research	Qualitative Interview Study	Patients with mental health issues referred to a SP service led by professional artists in community locations	Referral to a the 10-week blocks of art sessions led by professional artists in community locations. There are usually no more than 10 participants per group (AoP)	To explore the experiences of people who have engaged with AoP programmes	• Social: sense of social belonging, peer support, etc. • Psychological: self-awareness, self-discovery, etc. • Occupational: meaningful occupation and vocation
Sumner RC, et al. (2019) (70) linked to (65)	UK	Research	Observational Study	Patients (N 1297) referred to an Arts on Prescription SP programme by primary care professionals	Referral to an 8- or (formerly) 10-week course of creative activities (ranging from painting, to ceramics, playwriting, and mosaics), led by a local artist.	To identify potential factors associated with attendance, engagement and wellbeing change of patients referred to AoP.	• Wellbeing (WEMWBS) • Programme attendance and engagement

Thomson L, et al. (2018) (71)	UK	Research (published paper)	Mixed-Methods Study	Participants (N 115) aged 65–94 at risk of loneliness and social isolation referred to museum-based programmes by health and social care, museum facilitators and volunteers.	A museum-based intervention consisting of 10-week programmes of engaging, creative and socially interactive sessions, of around 2 hours each, comprising curator talks, behind-the-scenes tours, object handling and discussion, and arts activities inspired by the exhibits.	To assess psychological wellbeing in a novel SP intervention for older adults called Museums on Prescription and to explore the extent of change over time	• Quant: Psychological wellbeing (Museum wellbeing Measure for Older Adults - MwM-OA) • Qual: perceptions and experiences of the participants and their carers where present, museum facilitators and volunteers.
Creative Alternatives (2009) (72)	UK	Research (web-based report)	Before-and-after Study	Patients (N 187) with mild to moderate depression, stress or anxiety referred to an AoP programme delivered in an urban area	A free programme of creative activities over six months, comprising weekly core workshops on expressive work in the visual arts, creative writing, storytelling, photography, pottery, etc. (*Creative Alternatives - AoP*)	To assess the effectiveness of an AoP scheme in participants' health and wellbeing	• Mental wellbeing (HAD Scale, The Dartmouth COOP Chart) • Lifestyle modification (The Creative Alternatives Lifestyle Questionnaire)
Whelan G, et al. (2016) (73) linked to (72)	UK	Research (web-based report)	Mixed Methods Study	Patients (N 90) with mild to moderate mental health problems referred to an AoP programme delivered in an urban area	12 weekly sessions, two hours each, consisting of a Welcome Meeting, 10 creative workshops (including woodwork, creative writing, mandalas, painting and textiles) and a Moving Forward session at the end.	To assess the effectiveness of an AoP scheme in participants' health and wellbeing, and calculate its SROI	• Mental wellbeing (SWEMWBs) • Lifestyle modification (The Creative Alternatives Lifestyle Questionnaire) • Social return on investment (SROI)

Alarcón-Belmonte, et al. (2019) (74)	Spain	Research (published paper)	Case Study	One patient (N1) referred to a community-based resource by her primary care practitioner	Assessment in primary care by a regular primary care practitioner and onwards referral to a community-based centre offering exercise activities for older people	To describe how SP may be undertaken in primary care and identify relevant preconditions	• In-depth report of patient's assessment in primary health and the referral process into the community
Formento Marín N, et al (2019) (75)	Spain	Research (published paper)	Case Study	A socio-economically divers urban locality connected to two primary care centres	• Analysis of population characteristic • Identification of population health needs • Community health asset mapping • Organisation of assets according to socio-demographics • Description of the SP process and evaluation in primary care	To provide an in-depth description of a community health asset mapping process for enhancing social prescribing practices in primary care	• A detailed account on the steps and processes required to undertake SP in primary

Table S1b. Study characteristics of papers identified separately, main search (n=59)

Authors (year)	Country	Type of paper	Study Design	Sample/Setting	Intervention	Objective	Outcome measures
Faulkner M (2004) (76)	UK	Research (published paper)	Qualitative Pilot Study	Patients with psychosocial issues (N 11) and volunteer advisors (N 8) involved in a SP scheme delivered in an urban busy general practice	Appointments with 2 volunteer link workers responsible for leading discussions and arranging appointments with community-based services (over 150 organisations)	To describe and analyse the key features of a SP scheme, its perceived effectiveness, and any barriers to effective service provision.	• Key features of the SP scheme • Perceived effectiveness (social connectedness, distress levels, primary care service use) • Barriers to effective service provision
Stirrat, S (2014) (77)	Ireland	Research (Thesis)	Mixed-Methods Evaluation Study	Programme participants, primary care professionals and community group leaders involved in an EoP scheme delivered across 8 different urban and rural communities	A community-based, supported, walking-on-referral programme delivered over 12 weeks (*Green Prescription Programme*)	To determine the feasibility and acceptability of an EoP programme, and investigate its impact in participants well-being, referring health professionals and community groups involved	• Quant: physical activity, mental wellbeing (WEMWBS, WHO Wellbeing IS), clinical data (BP, resting HR, waist circumference, BMI) • Qual: stakeholders' experience with the service (satisfaction, expectations, etc.)
Ackermann RT, et al. (2005) (78)	USA	Research (published paper)	Cluster randomized controlled trial	Referrers from a health clinic and patients referred to a community exercise programme	A 10-minute individualized training session with primary care workers about available community-based physical activity resources, including a booklet with resource details	To determine whether a physical activity promotion intervention in primary care can lead to more community-based exercise referrals and higher exercise motivation in patients	• Health behaviour assessment and primary care provider advice • Exercise stage-of-change (PACE)

							• Proportion of participants reporting regular physical activity.
Roessler K (2011) (79)	Denmark	Research (published paper)	Qualitative Follow-up Study	Patients referred from a primary care centre to a community-based exercise programme delivered in an urban area	4 months of twice weekly supervised community-based physical training in groups (*Exercise on Prescription - EoP*)	To examine psychological aspects of intra- and interpersonal learning for patients with diabetes, hypertension, dyslipidaemia referred to EoP	• Motives and barriers in exercise participation • Characteristics of the 'non-completers' • Characteristics of the 'completers'
Baines A (2015) (80)	UK	Research (web-based report)	Mixed-Methods Evaluation Study	Primary care referrers, link workers and patients referred to a SP programme delivered across 4 mixed urban and rural practices	Referral to volunteer link workers ('Navigators', 'Health Buddies') for assessment adn supported referral to community-based services (e.g. dancing, volunteering, housing/homelessness, yoga, etc.) (*ConnectWELL SP Programme*)	To evaluate the impact and cost-effectiveness of a SP programme and identify potential gaps and barriers	• Quant: mental well-being (WEMWBS), costs • Qual: SP users', link workers', primary care workers', VCS representatives' experience with the service (satisfaction, expectations, etc.)
Harrison RA, et al. (2005) (81)	UK	Research (published paper)	Cross-Sectional Study	Primary care practitioners and patients referred to a district-wide community-based exercise scheme delivered across 125 general practices	Appointment with an exercise officer for assessment and referral to a suitable physical activity programme in and outside of the leisure centre, over 12 weeks (EoP)	To examine the factors associated with the uptake of an EoP service	• Service access (attendance at first appointment)

Edmunds et al. (2007) (82)	UK	Research (published paper)	Before-and-after Study	Participants ranged in age from 16 to 73 years and diagnosed as overweight/obese, referred by their GP to an EoP programme delivered in an urban area	Referral to an advisor (i.e., a health and fitness instructor with specialized training to deliver exercise prescriptions) for a 3-month exercise routine suited to each patient's condition (EoP)	To examine perceived autonomy support, psychological need satisfaction, self-determined motivation, exercise behaviour, exercise-related cognitions and general well-being amongst overweight/obese individuals referred to EoP	• Perceived autonomy support • Psychological need satisfaction • Motivational regulations for exercise (BREQ-2) • Exercise behaviour (GLTEQ) • Self-efficacy • Commitment • Behavioural intention to exercise • Subjective vitality • Satisfaction with life
Jones et al. (2005) (83)	UK	Research (published paper)	Before-and-after Study	Participants (N 119) suffering high blood pressure, weight or stress related problems referred by a primary care worker to an EoP scheme delivered in 7 sports centres across different localities	24 exercise sessions spread over 12 weeks. The exercise sessions consisted of gym-based, structured physical activity. Programme specification regarding equipment, intensity, duration was designed for each individual on the basis of an initial fitness assessment (*EoP*)	To investigate the role of participant expectations, self-efficacy, stage of change and psychological well-being in adherence to EoP, and assess the impact of failure to adhere on self-efficacy and psychological well-being	• Physical assessment (weight, BP) • Psychological measures (present level of activity, assessment of stage of change, exercise self-efficacy, expectations and achievement of change, psychological well-being)
Murphy et al. (2012) (84)	UK	Research (published paper)	Pragmatic randomised controlled trial with nested economic evaluation	Inactive participants (N 1080) with coronary heart disease risk, mild to moderate depression, anxiety and/or stress referred by a primary care	16-week tailored exercise programme supervised by a qualified exercise professional and delivered at leisure centres. The scheme included motivational interviewing,	To assess the effectiveness and cost effectiveness of an EoP programme in increasing physical activity and reducing anxiety and depression	• Physical activity (7D-PAR, Baecke) • Health-related quality of life (EQ-5D) • Mental well-being (hospital anxiety and depression scale – HADS).

				worker to an EoP scheme operating in 12 local health board areas	goal setting and relapse prevention (*National Exercise Referral Scheme - NERS*)		• Costs
Gidlow C, et al. (2005) (85)	UK	Research (published paper)	Literature Review	9 studies	Interventions based in primary care and involving referrals to an exercise professional (*EoP*)	To explore attendance of UK EoP schemes and compare evaluations of existing schemes with randomised controlled trials	• Referral uptake and attendance • Reasons for dropout
Rahman R, et al. (2011) (86)	UK	Research (published paper)	Before-and-after Study	Patients (N 293) identified by their GP as inactive and referred to an EoP programme operating in six council owned leisure centres	An induction followed by twice weekly exercise classes supervised by an exercise leader. Exercise schemes were individually tailored to suit referral conditions and delivered free of charge (*EoP*)	To examine psychological need satisfaction and motivational regulations as predictors of psychological and behavioural outcomes in EoP programmes	• Motivation (BREQ-2) • Mental wellbeing (HADS, Satisfaction with Life Scale) • Health-related quality of life (SF-36v2) • Physical activity level (Baecke's Questionnaire of Habitual Physical Activity) • Adherence
Morton K, et al (2008) (87)	UK	Research (published paper)	Before-and-after Study	Patients (N 30) referred from primary care to an EoP scheme delivered in a local leisure centre	Twice weekly exercise sessions over 6 weeks (*EoP*)	To examine whether self-determined motivation is fostered through an exercise referral scheme, and the extent to which patient motives are related to their exercise adherence	• Motivation (BREQ-2, self-determination score)
Munro JF, et al. (2004) (88)	UK	Research (published paper)	Pragmatic, cluster randomised	Patients (N 2283 intervention group) aged 65 and over in the	Locally organised, free, twice weekly exercise classes provided for up to	To assess the cost effectiveness of a community-based exercise programme as	• All cause and exercise related cause specific mortality • Hospital service use

			community intervention trial	least active four fifths of the population, referred from 12 urban general practices to a local EoP programme	two years. Activities were led by a qualified exercise leader (*EoP*)	a population wide public health intervention for older adults	• Health status (SF-36) • Cost utility
Edwards R, et al. (2013) (89) Linked to (84)	UK	Research (published paper)	Economic Evaluation	798 individuals (55% of the randomised controlled trial sample (84)) referred to an EoP scheme delivered at community-based leisure centres (*NERS*)	16-week tailored exercise programme supervised by a qualified professional	To assess the cost-effectiveness of an EoP scheme and explore the effects of medical diagnosis, gender, age, inequalities, referral route and adherence on effectiveness and cost-effectiveness	• Health-related quality of life (EQ-5D) • Health care services use • Costs • Willingness to pay
Kimberlee RH (2013) (90)	UK	Research (web-based report)	Mixed Methods Study, including a Literature Review	Service users, practitioners and commissioners involved in SP programmes delivered across 7 general practices in an urban area	Different referral pathways to community resources (SP as signposting, SP light, SP medium, SP holistic)	To provide an outline of different SP models and assess their impact, effectiveness and cost-effectiveness	• Characterisation of existing SP models • Quant: SP effectiveness (Inventory for Brokerage Service Outcomes Star (IBSO)) • Qual: SP users', link workers', primary care workers', VCS representatives' experience with the service (satisfaction, expectations, etc.)
Harrison R, et al. (2005) (91)	UK	Research (published paper)	Randomized controlled trial	Patients (N 545) defined as sedentary by a primary care practitioner, referred to an EoP programme	A one-hour consultation with an exercise officer, followed by a subsidized 12-week leisure pass, with reduced entrance fees to	To assess the effectiveness of a primary care referral scheme on increasing physical activity at 1 year from referral	• Physical activity at 6 months and 12 months (7-Day Physical Activity Recall (7dPAR) questionnaire)

				operating across 3 locality groups	any council-run physical activity facilities (*EoP*)		
Pavey T, et al. (2011) (92)	UK	Research (published paper)	Systematic review and meta-analysis	8 studies	Referrals by primary care professionals to third party service providers to increase physical activity (*EoP*)	To assess the impact of exercise referral schemes on physical activity and health outcomes	• Physical activity (as a self-report or objectively monitored) • Physical fitness • Clinical outcomes • Health related quality of life • Adverse events
Williams NH, et al. (2007) (93)	UK	Research (published paper)	Systematic review and meta-analysis	18 studies	Referral by a primary care clinician to a tailored programme of increased physical activity with an initial assessment, and monitoring and supervision throughout (*EoP*)	To assess whether exercise-referral schemes are effective in improving exercise participation in sedentary adults	• Physical activity • Anthropometric, biochemical outcomes • Psychological outcomes • Costs data • Patients' satisfaction
Public Health England (2019) (3)	UK	Research (web-based report)	Evidence Synthesis (rapid review)	8 studies	Referral from healthcare professionals in primary care settings to a link worker or SP facilitator	To investigate the effectiveness of SP in the UK	• Contact with primary health care services • Changes in physical and/or mental health (WEMWBS, HADS, HRQL EQ-5D5L, ICECAP-A)
Duda J, et al. (2014) (94)	UK	Research (published paper)	Cluster randomised controlled trial	Individuals (N 347) referred from 13 primary care centres to an EoP scheme delivered across 13 leisure centres in a large city	Exercise referral intervention grounded in Self Determination Theory over 3 months, including motivational interviewing, goal setting and a self-	To test the feasibility and impact of a Self Determination Theory-based (SDT) exercise referral consultation	• Self-reported physical activity (7-day PAR) • Physical health outcomes (BMI, BP) • Health status (Dartmouth CO-OP Chart Scales) • Mental wellbeing (HADS, SVS)

					management exercise promotion booklet (*EoP*)		• Motivation-related processes of change measures (HCCQ, PNSES, BREQ-2)
Kok M, et al. (2016) (95)	UK	Research (web-based report)	Before-and-after Study	Patients (N 811) at risk of or recently diagnosed with type 2 diabetes referred from primary care to a community-based diabetes prevention programme delivered across 2 urban and rural localities	A 12-month programme that starts with a GP surgery invitation letter and eligibility check; followed by a 4-week group course with trained facilitators, follow-on one-to-one contacts, and referral to selected healthy lifestyle activities (*Living Well, Taking Control*)	To evaluate the effectiveness and cost-effectiveness of a community-based type 2 diabetes prevention programme	• Biometric measures (weight, HbA1c, BMI, waist circumference, BP) • Questionnaire on quality of life (EQ-5D), overall life satisfaction (LSS), mental wellbeing (SWEMBS, CESD-7), physical activity (IPAQ), diet (FFQ), motivation to behavioural change
Mercer S, et al. (2017) (96)	UK	Research (web-based report)	Mixed-methods study	All practice staff (such as GPs, practice nurses, receptionists and health care assistants) of 7 GP practices involved in the SP scheme and adult patients (N 288) referred to the Community Link Worker	The provision of a Community Links Practitioner and a practice development fund to support patients' referrals to community services (*'Deep-End' Links Worker Programme*)	To assess the implementation and impact of a Links Worker SP Programme at patient, practice and community levels	• Quant: quality of life (EQ-5D-5L), mental wellbeing (ICECAP-A, HADS), work-social functioning, life-style behaviours (alcohol, smoking, exercise), healthcare utilisation. Practice level: team climate, job satisfaction, morale, burnout • Qual: barriers and facilitators to program implementation
Isaacs AJ, et al. (2007) (97)	UK	Research (published report)	A parallel-group, randomised controlled trial	Patients (N 943) not currently physically active referred from primary care to an EoP programme delivered	2 possible interventions: a 10-week programme of supervised exercise classes, 2-3 times weekly in a local leisure centre; a 10-week	To evaluate and compare the effectiveness and cost-effectiveness of a leisure centre-based exercise programme, an instructor-led	• Primary: Self-reported exercise, BP, total cholesterol and lipid subfractions • Secondary: Changes in anthropometry,

				in leisure centres throughout an urban borough	instructor-led walking programme, -3 times weekly (*EoP*)	walking programme and advice-only in patients referred for exercise by their GPs	cardiorespiratory fitness, flexibility, strength, power, lifestyle behaviour, mental health (HAD, SF-36), quality of life, health service usage
Flannery O, et al. (2014) (98)	UK	Research (web-based report)	Mixed Methods Study	Health professionals, staff and participants (N 2,505) involved in an EoP programme operating across a whole unitary authority area	Supervised, personalised activity programme over 12 weeks. The scheme was tailored to patients' health status and aimed to match their desires and realistic expectations (*EoP*)	To investigate the impact of an EoP scheme in the physical activity levels and well-being of participants, and explore stakeholders' views on the service	• Quant: self-reported exercise, health measures (BMI, BP, waist measurement), mental well-being (WEMWBS) • Qual: patients' and health professionals' experiences
Mills H, et al. (2012) (99)	UK	Research (published paper)	Mixed Methods Study	Patients (N 1,315), exercise providers and referring primary care health professionals involved in an EoP programme delivered in 5 urban local leisure centres	Referral to a patient-centred physical activity program over 26 weeks, including individual and group exercise sessions in gyms, exercise studios and swimming pools (*EoP*)	To explore and reveal the constituents of ''success'' in exercise referral schemes through comparison, contradiction, and integration of qualitative and quantitative research findings	• Qual: the perception of success according to participants, referrers, and exercise providers • Quant: programme completion, weight loss, mean arterial pressure reduction
James D, et al. (2009) (100) linked to (99)	UK	Research (published paper)	Prospective Population-based Longitudinal Study	Patients (N 1,315) referred from primary care to an EoP programme delivered across 5 leisure centres	Referral to a patient-centred physical activity program over 26 weeks (specified by Mills H et al. (99) (*EoP*)	To investigate patients' socio-demographic characteristics and referral reason in relation to completion and health outcomes in an EoP scheme	• Programme completion • BMI reduction • BP reduction
Penn L, et al. (2013) (101)	UK	Research (published paper)	Mixed Methods Pilot Study	Patients (N 218) at high risk of type 2 diabetes referred to a prevention programme	A 10-week supported programme to promote increased physical activity, healthy eating and weight	To assess the feasibility, acceptability and outcomes at a 12-month follow-up of a	• Quant: self-reported physical activity, weight, waist measurement, dietary assessment

				delivered in leisure and community settings of a socio-economically deprived local authority	loss, delivered by fitness trainers as twice-weekly group sessions, each followed by behavioural counselling ('*New life, New you'*)	behavioural intervention for adults at risk of T2D	• Qual: participants' views on acceptability of the intervention
Dayson C, et al. (2016) (102)	UK	Research (web-based report)	Mixed Methods Study and Economic Evaluation	Staff members (N 7), volunteers (N 2) and patients (N 939) referred from primary care to a SP scheme delivered across an entire metropolitan borough	Referral to a link worker (advisor) for assessment of support needs before referring to appropriate VCS services (e.g advice and information, leisure-social activities, exercise, etc.) (*Rotherham SP*)	To provide an updated assessment of the social and economic impact of a SP programme	• Quant: Demand for urgent hospital care, well-being and positive functioning, economic and social cost-benefit • Qual: staff members', volunteers' and users' experiences
Kimberlee RH (2016) (103)	UK	Research (web-based report)	Mixed Methods Study and Economic Evaluation	Referring GPs, link workers, members of community organisations and patients (N 2047) referred to a SP programme operating across a county	Referral to a link worker for assessment of support needs before referring to VCS services (e.g. welfare services, exercise activities, arts classes) (*Gloucestershire SP*)	To evaluate the impact of an expanded SP scheme in patients' well-being and service use	• Quant: mental wellbeing (WEMWBS), hospital and primary care attendance • Qual: stakeholders' views and experiences
Wormald H, et al. (2004) (104)	UK	Research (published paper)	Qualitative Focus Group Study	Patients (N 30) referred from primary care to an EoP programme delivered in 4 urban leisure centres	A 10-week exercise programme (*EoP*)	To explore patients' perceptions of primary care-based EoP schemes	• Participants' views on the role of the primary care staff; the exercise programme, environment and staff; and perceived effects of the scheme

Jepson R, et al. (2010) (105)	UK	Research (web-based report)	Mapping Review	94 scheme co-ordinators and providers	Schemes comprising an aspect of outdoor physical activity and some type of referral mechanism from health care practitioners (*Green prescriptions*)	To identify existing outdoor physical activity schemes, including green prescriptions, and to identify factors leading to successful models.	• Quant: main characteristics of local 'green prescription' schemes • Qual: scheme providers' perception on the referral process
Graham RC, et al. (2005) (106)	UK	Research (published paper)	Mixed Methods Study	Referring primary health care professionals (N 144) of 52 different practices	Schemes linking patients in primary care with community-based physical activity programmes (*EoP*)	To investigate the exercise referral process from the health professional's perspective, examining perceived barriers to referral, importance of their role and priorities	• Priority of physical activity promotion by health workers • Health professionals' barriers to referral and perceived role in promoting physical activity • Identification methods of referral
Din NU, et al. (2015) (107)	UK	Research (published paper)	Qualitative Study	Referring primary health care professionals (N 46) across 6 local health board areas	16-week tailored exercise programme supervised by a qualified professional and delivered at leisure centres (NERS)	To explore health professionals' perceptions of their role in promoting physical activity and experiences of an EoP scheme	• Beliefs and attitudes of health professionals to EoP • Barriers to referral • Facilitators to referral
Rouse O, et al. (2011) (108)	UK	Research (published paper)	Cross-Sectional Study	Patients (N 347) referred from primary care to an exercise referral scheme in a large city	Referral to an EoP scheme (*EoP*)	To explore the role of autonomy support on the motivation, mental health and intentions of EoP participants	• Emotional well-being: subjective vitality (SVS) and depressive symptoms (HADS-D) • Physical activity intentions
Brandling J, et al. (2007) (109)	UK	Research (web-based report)	Mixed Methods Pilot Study	Community stakeholders, primary care workers and patients defined as	A SP service, to be designed based upon the finding of the study	To explore the feasibility of developing a SP service to reach a significant proportion of primary care high resource users	• Quant: health resource use • Qual: opinions on potential SP users, benefits and drawbacks of SP, barriers to accessing the service

				'high resource users' linked to 3 GP surgeries			
Dinan S, et al (2006) (110)	UK	Research (published paper)	Prospective cohort study	Patients (N 242) referred from 14 urban general practices to an EoP programme delivered in local community settings	A targeted, tailored exercise programme for frail older people delivered in group sessions, once weekly over 8 weeks (EoP)	To assess the feasibility and effectiveness of a tailored exercise referral programme for frail elderly patients	• Functional gain (Timed Up and Go test – TUG)
Moore GF, et al. (2013) (111)	UK	Research (published paper)	Mixed Methods Study	Inactive participants (N 1080) referred by a primary care worker to an EoP scheme operating in 12 local health board areas	16-week tailored exercise programme supervised by a qualified professional and delivered at leisure centres (NERS)	To quantify the fidelity and dose of core components, and patterning in uptake and adherence of an EoP scheme. To qualitatively explore how EoP might facilitate adherence to physical activity	• Quant: fidelity, dose of core components of the scheme, patients' uptake and adherence • Qual: experiences around entering the scheme, undertaking activities and leaving the programme
Wormald H, et al (2006) (112)	UK	Research (published paper)	Qualitative Focus Group Study	16 participants referred to an EoP programme delivered in the most socio-economically deprived areas of a city	Referral to an advisor for ongoing support in the form of up to 6 monthly progress consultations and optional ongoing referred to VCS activities (*Active Lifestyles – EoP*)	To explore participants' perceptions of the operation and effectiveness of a community-based physical activity service	• Participants' views on the referral process, operational aspects of the service, and perceived benefits
Penn L, et al. (2013) (113) linked to (101)	UK	Research (published paper)	Qualitative Substudy	Adults (N 15) at high risk of type 2 diabetes referred to a lifestyle programme delivered in leisure and community settings	An individual assessment and referral to a 10-week supported programme consisting of twice weekly sessions. Activities were mostly physical, such us	To elicit participants' perspectives on making and maintaining behavioural changes in a lifestyle intervention for type 2 diabetes prevention	• Participants' experiences around intentions and goals; reinforcement; knowledge; social role and identity; capabilities and skills; behavioural regulation;

				across a socio-economically deprived local authority	gym-based activities and walks, but also included cookery sessions and dietary advice ('New life, New you')		attention and decision processes; memory and emotion; and environmental context and resources.
Kier Business Services Limited (2016) (114)	UK	Research (web-based report)	Mixed Methods Evaluation	Referring primary care workers, patients, link workers and community stakeholders involved in a SP programme operating across 37 practices	Referral to a link worker for assessment of patients' needs and linkage into third sector, statutory services or community-based activities (*Patient Empowerment Project*)	To evaluate effectiveness and cost-effectiveness of a SP programme focused on individuals with long-term conditions	• Quant: patients' health and wellbeing (clinical data, SWEMWBS, EQ-5D-5L), self-efficacy and management, (ONS items), healthcare utilisation • Qual: stakeholders' perceptions about the service
See Tai S, et al. (1999) (115)	UK	Research (published paper)	Cross-sectional Study	Patients (N 152) referred from 10 general practices to an EoP scheme operating in local leisure centres across an urban area	Initial assessment by trained personnel at a leisure centre, followed by a tailored exercise programme of 20 sessions over 10 weeks (*EoP*)	To explore whether the cost of exercise programmes in leisure centres is a barrier to uptake in a British population	• Completion of the exercise programme (adherence)
Penn L, et al. (2014) (116) linked to (101)	UK	Research (published paper)	Qualitative Study	Pakistani female participants (N 20) at high risk of type 2 diabetes referred to a lifestyle programme delivered in leisure and community settings across a socio-economically deprived local authority	8-week programme of weekly sessions delivered to groups of 10-20 women. Sessions comprised 60 min of supervised physical activity followed by 30 min of reflection and advice centred on dietary information and action planning (*Culturally*	To investigate Pakistani women's perspectives of their behaviour change and salient features of a culturally adapted lifestyle intervention for type 2 diabetes prevention	• Participants' experiences around intentions; reinforcement; knowledge; social role; capabilities and skills; behavioural regulation; decision processes; memory and emotion; environmental context and resources; collateral health and social benefits.

					adapted version of 'New life, New you')		
Mistry B, et al. (2017) (117)	UK	Research (web-based report)	Mixed Methods Study	Patients (N 28) referred from primary care to a SP programme delivered across 4 urban general practices	Assessment by a Community Support Coordinator (link worker) and referral to community-based services (e.g. physical activities, counselling, advice around debt, housing, etc.) (*Prescription Plus*)	To assess the impact of a SP scheme in patients' wellbeing and service utilisation	• Quant: patients' wellbeing, health services use, • Qual: stakeholders' experiences and perceptions about the service
Steadman K, et al. (2016) (118)	UK	Research (web-based report)	Qualitative interview and Case Study	Members (N 40) of the Social Prescribing Network. GPs, Link Workers, commissioners, service managers and clients involved in 4 SP programmes	Schemes that link patients in primary care with community-based services and activities	To understand the current use, and the implications of use, of SP as a mechanism for achieving work-related outcomes	• Stakeholders' views on the impact of SP on work-related outcomes
Price S, et al. (2017) (119)	UK	Research (web-based report)	Literature Review	62 studies/reports	Targeted, non-clinical, community-based interventions, services or programmes (e.g. link worker schemes, exercise referral programmes, etc)	To explore how, why and in what circumstances SP might benefit the health and well-being of individuals and families with social, emotional or practical needs.	• The intervention and model characteristics • Intended and actual beneficiaries • Anticipated and demonstrated outcomes • Intervention design and implementation lessons
Impetus Community	UK	Research	Before-and-after Study	Patients (N 549) referred to a SP scheme	Initial telephone assessment for triage,	To describe the functioning of a SP scheme and evaluate its	• Health and community service use

Navigation (2018) (120)		(web-based report)		operating across 2 urban localities	meeting with community navigator and onward supported referral to community-based services (e.g. lifestyle activities, benefits and debt advise, etc) (*Impetus community navigation*)	impact on users' well-being and participation	• Evidence of progress: satisfaction, social support, self-management, perceived wellbeing
Jones T, et al. (2009) (121)	UK	Research (web-based report)	Mixed Method Study	Project staff (N 28) and service users (N 40) involved in a SP scheme operating across an entire region	SP programmes offering physical exercise, healthy eating, mental well-being and general well-being activities (*South West Well-being*)	To evaluate a SP programme in the first year of delivery and identify emerging themes across the programme.	• Quant: general health, physical activity, diet related behaviour, mental and social well-being • Qual: service staff and users' experiences on the service
Gidlow C, et al. (2007) (122) linked to (123)	UK	Research (published paper)	Cross-sectional Study	Participants (N 3568) referred to a countywide EoP scheme during a three-year period	Initial assessment by an accredited exercise scientist, and onward referral to leisure providers (*Somerset Physical Activity Group – EoP*)	To gain insight into factors associated with referral, uptake and attendance in EoP schemes.	• Referral update and completion
Crone D, et al. (2004) (123)	UK	Research (published paper)	Case Study	A multiagency alliance involved in the implementation and delivery of a countywide EoP scheme	Initial assessment by an accredited exercise scientist, and onward referral to leisure providers (*Somerset Physical Activity Group – EoP*)	To provide insight into how a multiagency strategic group can address the implementation of recommendations for improving a local EoP scheme	• Lessons learnt from the development of an EoP programme and proposals for the future

Johnston L, et al (2005) (124) linked to (122) and (123)	UK	Research (published paper)	Cross-sectional Case Study	Patients (N 458) removed from a countywide EoP scheme for being deemed unsuitable by an accredited exercise scientist.	Initial assessment by an accredited exercise scientist, and onward referral to a leisure provider (*Somerset Physical Activity Group - EoP*)	To evaluate the impact of a centralised referral mechanism upon the number and type of 'inappropriate referrals' made to a countywide EoP scheme.	• Reasons for removal from the EoP scheme (psychosocial, socio-demographic, medical factors)
Crone D, et al. (2008) (125) linked to (124)	UK	Research (published paper)	Cross-sectional Study	Patients (N 2901) referred from primary care to a countywide EoP scheme	Initial assessment by an accredited exercise scientist, and onward referral to a leisure provider (Somerset Physical Activity Group - EoP)	To compare outcomes of uptake, attendance, and completion between two different patient groups in an EoP scheme.	• Programme uptake, attendance and completion
Pavey T, et al (2011) (126)	UK	Research (published report)	Systematic review and economic evaluation	7 studies	Schemes linking patients in primary care with physical activity services in the community (EoP)	To assess the clinical effectiveness and cost-effectiveness of EoP for people with a diagnosed medical condition known to benefit from physical activity	• Self-reported physical activity (7-Day PARQ) • Physical fitness • Clinical factors • Psychological well-being (HADS, PSW, EQ-5D) • Health-related quality of life (HRQoL) • Costs
Tava'e N, et al. (2011) (127)	New Zealand	Research (published paper)	Qualitative Study	Pacific women (N 20) aged 40 years and older referred from primary care to an EoP programme and discharged as independently active	Referral to a supported, tailored exercise programme comprising education workshops covering topics such as nutrition, healthy lifestyle, etc. (EoP)	To investigate the experience of Pacific women referred to a Green Prescription programme	• Past history of physical activity • Views and experiences about the programme • Influences on programme adherence or dropout rates • Health perception

Martin C, et al. (1999) (128)	UK	Research (published paper)	Mixed Methods Study	Patients (N 77) referred from primary care to an EoP scheme operating across a county	Initial assessment by an adviser and onward referral to an exercise programme of 20 sessions over 10-week (EoP)	To examine the characteristics of individuals referred to an EoP scheme and compare those who completed the programme with those who failed to complete.	• Quant: programme completion • Qual: attitude towards the and the programme, reasons for continuity of exercising and non-completion
Schmidt M, et al. (2008) (129)	The Netherlands	Research (published paper)	Mixed Methods Study	Female patients (N 523) referred from primary care to an EoP scheme operating in 5 deprived neighbourhoods	Initial assessment by a sport advisor and onward referral to an exercise group (swimming, gymnastics, cardio-fitness or dancing) of paid weekly sessions over 20 weeks.	To explore the socio-demographic and psychosocial characteristics of female participants in EoP and determine which elements of the intervention affect participation	• Quant: demographic features, goals of the participants, physical activity in leisure time (SQUASH) • Qual: appealing elements of the intervention
Kimberlee R, et al (2015) (130) linked to (90)	UK	Research (published paper)	Qualitative Study	SP practitioners, local council/Public Health employees, GPs and patients participating in SP programmes operating in different localities	Different referral pathways to community resources (SP as signposting, SP light, SP medium, SP holistic)	To explore the meaning and definition of SP, and describe different programme types	• Different SP models based on their community embeddedness
ERS Research and Consultancy (2013) (131)	UK	Research (web-based report)	Mixed Methods Study	Service users, healthcare practitioners, members of the steering group involved in a SP scheme operating in a socio-economically diverse city	Referral to one of the 5 collaborating Linkwork Organisations. Initial assessment and onward referral to community-based activities	To provide an assessment of the impact and achievements of a SP scheme, and document lessons learned to inform future practice.	• Quant: number for referrals, reason for referral, primary goals set, mental wellbeing (SWEMWB, mean confidence scores) • Qual: stakeholders' views and experiences around SP

Grayer J, et al. (2008) (132)	UK	Research (published paper)	Before-and-after Study	Patients with psychosocial problems referred by primary care practitioners to a SP scheme being delivered across 13 urban general practices	Initial assessment by a graduate primary care mental health worker and onwards referral to community resources with different, personalised levels of support	To evaluate the acceptability and effectiveness of a SP programme facilitating access of patients with psychosocial problems in primary care to VCS services	• Mental wellbeing (GHQ-12, COREOM) • Social outcomes (WSAS) • Patient satisfaction (CSQ, community link evaluation) • Use of primary care resources
Friedli M, et al. (2012) (133)	UK	Research (web-based report)	Mixed Methods Study	General practitioners (N 123), link workers (N 3) and patients (N 12) involved in a SP scheme delivered in a socioeconomically deprived area	GP referral followed by contact from a link worker and up to 4 consultations to assess patient needs and identify appropriate community-based information, support and/or activities (Sources of Support - SOS)	To establish whether and how a SP scheme might work	• Quant: mental wellbeing (WEMWBS), social outcomes (WSAS) number for referrals, reason for referral • Qual: stakeholders' views and experiences around the programme

Table S1c. Study characteristics additional search (n=4)

Authors (year)	Country	Type of paper	Study Design	Sample/Setting	Intervention	Objective	Outcome measure
Lowe T, et al. (2019) (134)	UK	Research (published paper)	Case Study	Key stakeholders (N 22) involved in the development of a SP programme located in Northern England	A Social Impact Bond (SIB) funded SP programme comprising referral to and assessment by a link worker ('Care Connector')	To analyse how Social Impact Bond-type funding mechanisms influence the rules, norms and decisions of key actors	Dominant discourses and tensions around SIB implementation
Harlock J. (2014) (135)	UK	Research (web-based report)	Qualitative Study	Local adult social care commissioners and officers (N 8) in six local authorities in England	Local authorities commissioning third sector organisations to provide a range of social care and support services to older people and disabled adults	To understand how social value is being applied in commissioning processes with the third sector	Common experiences and cross-cutting key issues and challenges in evidencing the social value of the VCS in social care commissioning processes
Fraser A, et al. (2018) (136)	UK	Research (published paper)	Literature Review	101 studies	Studies analysing Social Impact Bond-type funding mechanisms	To explore the main themes and concepts within the emergent literature on Social Impact Bonds	Cross-cutting themes and narratives on private versus public values, outcomes contracting and risk allocation.
Milbourne L. (2019) (137)	UK	Research (published paper)	Case Study	Representatives of community-based organisations, local voluntary action council and key local authority service managers (N 50) in a deprived, multi-ethnic locality	Third sector organisations providing services for children and young people commissioned by a large inner-city public authority	To examine changes in policy and inter-agency relationships affecting community-based organisations	Common threads of experience around outcome-based competitive commissioning of community-based organisations

Table S1d. Study characteristics of papers identified through database alerts (n=9)

Authors (year)	Country	Type of paper	Study Design	Sample/Setting	Intervention	Objective	Outcome measure
Aggar C, et al (2020) (138)	Australia	Research (published paper)	Before-and-after Study	13 patients with mental health problems referred from primary care to a SP scheme delivered in an urban setting	Referral to a link worker for assessment and discussion on available community-based resources, and provision of weekly arts and crafts group sessions (2-3h for 10 weeks)	To evaluate whether a SP pilot program can improve participants' quality of life, and social and economic participation.	• Quality of life (WHOQoL) • Welfare needs and support (CANSAS) • Health Status and self-efficacy (EQ5D) • Psychosocial distress (Scale K10) • Loneliness and social participation (UCLA) • Economic participation • Hospital admission
Beardmore A (2020) (139)	UK	Research (published paper)	Qualitative Study	8 primary care and VCS workers involved in a SP scheme delivered in an urban and suburban area	'Medium' and 'Holistic' SP schemes, as specified by Kimberlee (130)	To explore who works in SP and how they experience their role	• Narrative accounts of those working in SP
Tierney S, et al (2020) (140)	UK	Research (published paper)	Realist review	118 studies	Primary care-based SP schemes focusing in adults (+18)	To understand how SP might work, for whom, in what circumstances and how to optimise delivery within primary care	• A refined programme theory on how connector roles, especially link workers, work in practice
Kellezi B, et al (2019) (141)	UK	Research (published paper)	Mixed methods	GPs, SP providers and patients experiencing	Initial meeting and needs assessment by a health coach. Onwards	To determine social factors central to the understanding of SP and	• QuaL: stakeholders' perceptions of social (dis)connection, and the potential of SP to address it.

				loneliness referred to a SP scheme delivered in the English East Midlands.	prescription of self-care management or referral to a link worker for linkage into VCS groups	how SP is experienced among stakeholders. To evaluate the effects of SP on patients' health- service use.	• QuanT: service use, number of group memberships, community belonging, loneliness (ULS-8).
Jensen B, et al (2020) (142)	Denmark	Research (published paper)	Qualitative Study	Members (n=8) of culture institutions participating in an AoP project in Denmark	A range of arts and cultural activities (including choir singing, classical music, nature walks, guided reading, etc.) for participants with stress, anxiety or mild to moderate depression (AoP)	To explore the views and experiences of cultural institutions involved in an AoP programme	• Cultural institutions' perspectives on the participation in an AoP programme.
Wallace C, et al (2020) (143)	UK	Research (published paper)	Mixed Methods Study	A group of (n=18) geographically spread link workers across Wales and 85 conference participants with SP components in their work role	SP schemes involving assessment and support by a link worker	To develop an education and training needs conceptual framework for SP in Wales	• QuanT: Sociodemographic characteristics, statements in response to agreed focus prompts • QuaL: prioritisation of learning needs, identification of appropriate timelines of training delivery
Frostick C, et al (2019) (144)	UK	Research (published paper)	Qualitative Study	Link Workers (n=13) actively working in one of three London-based SP schemes	Three SP schemes involving assessment and support by link workers	To identify the training, skills and experience that link workers working with patients with long-term conditions require to carry out their role	• Link workers' prior expectations, training and experience, as well as perceived challenges

Mercer SW et al (2019) (145) linked to (96)	UK	Research (published paper)	Quasi-experimental cluster-randomized controlled trial	Adult patients (n=288) referred to SP in 7 intervention practices, compared with a random sample of adult patients (n= 612) from 8 comparison practices	Referral to a link worker for assessment of patient's most pressing problems, and ongoing supported referral to local community resources	To assess the effect of a primary care–based community links practitioner intervention on patients' quality of life and well-being	• Primary outcome: health-related quality of life (EQ-5D-5L) • Secondary outcomes: well-being (ICECAP-A), depression (HADS-D), anxiety (HADS-A), and self-reported exercise.
Payne K, et al (2020) (146)	UK	Research (published paper)	Qualitative Study	Adults (n=17) involved in socially prescribed activities delivered in an urban locality	Initial assessment by a link worker and onwards referral to relevant community groups or in-house support services	To explore the ways by which SP may be beneficial to individuals undertaking socially prescribed activities	• Participants' recalled and narrated accounts of their experience participating in socially prescribed activities

Supplementary Tables S2. Quality appraisal of studies included

Table S2a. Quality appraisal main search (n=68)
Table S2b. Quality appraisal of papers identified separately (n=59)
Table S2c. Quality appraisal additional search (n=4)
Table S2d. Quality appraisal of papers identified through database alerts (n=9)

Table S2a. Quality appraisal main search (n=68)

Authors (year)	Country	Type of paper	Study Design	Relevance	Richness	Rigour
Rempel ES, et al. (2017) (10)	UK	Research (published paper)	Literature Review	Low relevance	Conceptually thick	Good (CASP)
Woodall J, et al. (2018) (11)	UK	Research (published paper)	Mixed Methods Study	High relevance	Conceptually rich	Good (MMAT)
Darnton P, et al. (2018) (12)	UK	Research (web-based report)	Mixed Methods and Economic Evaluation	Low relevance	Conceptually thick	Poor (MMAT)
Pescheny J, et al. (2018) (13)	UK	Research (published paper)	Qualitative Study	High relevance	Conceptually thick	Good (CASP)
Bickerdike L, et al. (2017) (5)	UK	Research (published paper)	Literature review	High relevance	Conceptually thick	Good (CASP)
Ferguson K (2018) (14)	UK	Research (web-based report)	Cross-sectional survey study	High relevance	Conceptually thick	Poor (NIH)

Loftus AM, et al. (2017) (15)	UK	Research (published paper)	Before-and-after study	High relevance	Conceptually thin	Good (NIH)
Prior F, et al. (2019) (16)	UK	Research (published paper)	Before-and-after study	Low relevance	Conceptually thin	Fair (NIH)
Stewart EE, et al. (2014) (17)	USA	Research-based toolkit (published paper)	Case Study	High relevance	Conceptually thin	Fair
Kilgarriff-Foster A, et al. (2015) (18)	UK	Research (published paper)	Literature review	High relevance	Conceptually thick	Fair (CASP)
Chatterjee HJ, et al. (2018) (19)	UK	Research (published paper)	Literature review	High relevance	Conceptually thin	Fair (CASP)
Chesterman D, et al. (2018) (20), linked to Mistry B, et al.	UK	Research (published paper)	Action Research Study	Low relevance	Conceptually rich	Fair (CASP)
Dayson C (2017) (21)	UK	Research (published paper)	Mixed Methods Case Study	High relevance	Conceptually rich	Fair (MMAT)
Ferguson K, et al. (2018) (22), linked to (14)	UK	Research (web-based report)	Mixed Methods Evaluation Study	High relevance	Conceptually rich	Fair (MMAT)
Blickem C, et al. (2013) (23)	UK	Research (published paper)	Qualitative interview and focus group study	Low relevance	Conceptually thick	Good (CASP)
Elston J, et al. (2019) (24)	UK	Research (published paper)	Before-and-after study	High relevance	Conceptually thin	Good (NIH)
Whitelaw S, et al. (2017) (25)	UK	Research (published paper)	Qualitative Case Study	High relevance	Conceptually rich	Good (CASP)
White JM, et al. (2017) (26)	UK	Research (published paper)	Qualitative Interview Study	High relevance	Conceptually rich	Good (CASP)

Polley M, et al (2017) (27)	UK	Research (web-based report)	Literature review	High relevance	Conceptually thin	Poor (CASP)
Dayson C, et al. (2018) (28)	UK	Research (web-based report)	Before-and-after study	High relevance	Conceptually thin	Poor (NIH)
Martín-Borràs C, et al. (2018) (29)	Spain	Research (published paper)	Randomized Controlled Trial	Low relevance	Conceptually thin	Good (CASP)
Husk K, et al. (2019) (30)	UK	Research (published paper)	Realist Review	High relevance	Conceptually rich	Good (CASP)
Pescheny JV, et al. (2019) (31)	UK	Research (published paper)	Before-and-after study	High relevance	Conceptually thin	Fair (NIH)
Pescheny JV, et al. (2019) (32)	UK	Research (published paper)	Systematic Review	High relevance	Conceptually rich	Good (CASP)
Carnes D, et al. (2017) (33)	UK	Research (published paper)	Mixed Methods Study	High relevance	Conceptually thick	Good (MMAT)
Thomson LJ, et al. (2015) (34)	UK	Research (web-based report)	Literature review	High relevance	Conceptually thick	Poor (CASP)
Moffatt S, et al. (2017) (35)	UK	Research (published paper)	Qualitative Interview Study	High relevance	Conceptually rich	Good (CASP)
Pons-Vigués M, et al. (2019) (36)	Spain	Research (published paper)	Descriptive Qualitative Research	Low relevance	Conceptually rich	Good (CASP)
Wigfield A, et al. (2015) (37)	UK	Research (web-based report)	Mixed Methods Study	High relevance	Conceptually thin	Poor (MMAT)
Arsenijevic J, et al. (2017) (38)	The Netherlands	Research (published paper)	Systematic Review and meta-analyses	Low relevance	Conceptually thin	Good (CASP)

Campbell F, et al. (2015) (39)	UK	Research (published report)	Systematic Review and Economic Evaluation	Low relevance	Conceptually thick	Good (CASP)
Lindau ST, et al. (2016) (40)	USA	Research (published paper)	Before-and-after Study (including cross-sectional surveys)	Low relevance	Conceptually thin	Poor (NIH)
Hamilton-West K, et al. (2019) (41)	UK	Research (published paper)	Evaluability Assessment Study	Low relevance	Conceptually thick	Good (CASP)
Wildman JM, et al. (2019) (42) linked to (35)	UK	Research (published paper)	Qualitative Follow-up Study	High relevance	Conceptually rich	Good (CASP)
Hanlon P, et al. (2019) (43)	UK	Research (published paper)	Qualitative Interview Study	High relevance	Conceptually rich	Good (CASP)
Wildman JM, et al. (2019) (44) linked to (42)	UK	Research (published paper)	Qualitative Interview and Focus Groups Study	High relevance	Conceptually rich	Good (CASP)
Swift M (2017) (45)	UK	Research (published paper)	Mixed Methods Study	High relevance	Conceptually rich	Poor (MMAT)
Wessex Academic Health Science Network (2017) (46)	UK	Research (web-based report)	Mixed Methods Study	High relevance	Conceptually thin	Poor (MMAT)
Beech R, et al. (2017) (47)	UK	Research (published paper)	Realist Evaluation (mixed methods design)	High relevance	Conceptually rich	Good (MMAT)
Coan J (2016) (48)	UK	Research (web-based report)	Mixed Methods Research	High relevance	Conceptually thick	Poor (MMAT)
Bertotti M, et al. (2015) (49)	UK	Research (web-based report)	Mixed Methods Study (including an Economic Evaluation)	High relevance	Conceptually thick	Poor (MMAT)

Skivington K, et al. (2018) (50)	UK	Research (published paper)	Qualitative Interview Study	High relevance	Conceptually rich	Good (CASP)
Dayson C, et al. (2019) (51)	UK	Research (published paper)	Qualitative Case Study	High relevance	Conceptually rich	Good (CASP)
Southby K, et al. (2018) (52)	UK	Research (published paper)	Qualitative Case Study	High relevance	Conceptually rich	Good (CASP)
Heijnders ML, et al. (2018) (53)	The Netherlands	Research (published paper)	Qualitative Interview Study	High relevance	Conceptually rich	Good (CASP)
Centre for Reviews and Dissemination. University of York (2015) (54)	UK	Research (web-based report)	Rapid Review	High relevance	Conceptually thin	Fair (CASP)
Tierney S, et al. (2019) (55)	UK	Research (published paper)	Cross-Sectional Study	High relevance	Conceptually thin	Good (NIH)
Pescheny JV, et al. (2018) (56)	UK	Research (published paper)	Literature Review	High relevance	Conceptually rich	Good (CASP)
Pilkington K, et al. (2017) (4)	UK	Research (published paper)	Scoping Review	High relevance	Conceptually thin	Good (CASP)
South et al. (2008) (57)	UK	Research (published paper)	Qualitative Case Study	High relevance	Conceptually thick	Fair (CASP)
Bertotti M, et al. (2018) (58) linked to (49) (33)	UK	Research (published paper)	Realist Evaluation (Mixed Methods Study)	High relevance	Conceptually rich	Good (MMAT)
Bragg R, et al. (2017) (59)	UK	Research (web-based report)	Evidence Synthesis	High relevance	Conceptually rich	Poor (CASP)

Bungay H, et al (2010) (60)	UK	Research (published paper)	Evidence Synthesis	Low relevance	Conceptually thin	Poor (CASP)
Grant C, et al. (2000) (61)	UK	Research (published paper)	Randomized Controlled Trial	High relevance	Conceptually thin	Good (CASP)
Jensen A, et al. (2019) (62)	Denmark	Research (published paper)	Qualitative Study	Low relevance	Conceptually thin	Fair (CASP)
Jensen A, et al. (2017) (63)	Sweden, Norway, Denmark, UK	Research (published paper)	Rapid Review	Low relevance	Conceptually thin	Fair (CASP)
Maughan DL, et al (2016) (64)	UK	Research (published paper)	Observational Study	High relevance	Conceptually thin	Poor (CASP)
Redmond M, et al. (2018) (65)	UK	Research	Qualitative Follow-up Study	Low relevance	Conceptually thick	Fair (CASP)
Age Concern Support Services (2011) (66)	UK	Research (web-based report)	Mixed methods (Qualitative case studies, before-and after survey)	High relevance	Conceptually thin	Poor (MMAT)
Stickley T, et al. (2013) (67)	UK	Research (published paper)	Qualitative follow-up study	Low relevance	Conceptually thick	Good (CASP)
Stickley T, et al. (2012a) (68)	UK	Research (published paper)	Qualitative Interview Study	Low relevance	Conceptually thick	Good (CASP)
Stickley T, et al. (2012b) (69)	UK	Research (published paper)	Qualitative Interview Study	Low relevance	Conceptually thick	Good (CASP)
Sumner RC, et al. (2019) (70) linked to (65)	UK	Research (published paper)	Before-and-after Study	Low relevance	Conceptually thin	Fair (NIH)

Thomson L, et al. (2018) (71)	UK	Research (published paper)	Mixed-Methods Study	Low relevance	Conceptually thin	Poor (MMAT)
Creative Alternatives (2009) (72)	UK	Research (web-based report)	Before-and-after Study	Low relevance	Conceptually thin	Poor (NIH)
Whelan G, et al. (2016) (73) linked to (72)	UK	Research (web-based report)	Mixed Methods Study	Low relevance	Conceptually thin	Poor (MMAT)
Alarcón-Belmonte, et al. (2019) (74)	Spain	Research (published paper)	Case Study	Low relevance	Conceptually thick	Fair (CASP)
Formento Marín N, et al (2019) (75)	Spain	Research (published paper)	Case Study	Low relevance	Conceptually thick	Fair (CASP)

Table S2b. Quality appraisal of papers identified separately (n=59)

Authors (year)	Country	Type of paper	Study Design	Relevance	Richness	Rigour
Faulkner M (2004) (76)	UK	Research (published paper)	Qualitative Pilot Study	High relevance	Conceptually rich	Good (CASP)
Stirrat, S (2014) (77)	Ireland	Research (Thesis)	Mixed-Methods Evaluation Study	Low relevance	Conceptually rich	Good (MMAT)
Ackermann RT, et al. (2005) (78)	USA	Research (published paper)	Cluster randomized controlled trial	Low relevance	Conceptually thin	Good (CASP)
Roessler K (2011) (79)	Denmark	Research (published paper)	Qualitative Follow-up Study	Low relevance	Conceptually rich	Good (CASP)
Baines A (2015) (80)	UK	Research (web-based report)	Mixed-Methods Evaluation Study	Low relevance	Conceptually thick	Poor (MMAT)
Harrison RA, et al. (2005) (81)	UK	Research (published paper)	Cross-Sectional Study	Low relevance	Conceptually thin	Good (NIH)
Edmunds et al. (2007) (82)	UK	Research (published paper)	Before-and-after Study	Low relevance	Conceptually thin	Poor (NIH)
Jones et al. (2005) (83)	UK	Research (published paper)	Before-and-after Study	Low relevance	Conceptually thin	Fair (NIH)
Murphy et al. (2012) (84)	UK	Research (published paper)	Pragmatic randomised controlled trial with nested economic evaluation	Low relevance	Conceptually thin	Good (CASP)

Gidlow C, et al. (2005) (85)	UK	Research (published paper)	Literature Review	Low relevance	Conceptually thick	Good (CASP)
Rahman R, et al. (2011) (86)	UK	Research (published paper)	Before-and-after Study	Low relevance	Conceptually thin	Poor (NIH)
Morton K, et al (2008) (87)	UK	Research (published paper)	Before-and-after Study	Low relevance	Conceptually thin	Poor (NIH)
Munro JF, et al. (2004) (88)	UK	Research (published paper)	Pragmatic, cluster randomised community intervention trial	Low relevance	Conceptually thin	Fair (CASP)
Edwards R, et al. (2013) (89) Linked to (84)	UK	Research (published paper)	Economic Evaluation	Low relevance	Conceptually thin	Good (CASP)
Kimberlee RH (2013) (90)	UK	Research (web-based report)	Mixed methods (Literature Review and Qualitative Study)	High relevance	Conceptually thick	Poor (MMAT)
Harrison R, et al. (2005) (91)	UK	Research (published paper)	Randomized controlled trial	Low relevance	Conceptually thin	Good (CASP)
Pavey T, et al. (2011) (92)	UK	Research (published paper)	Systematic review and meta-analysis	Low relevance	Conceptually thin	Good (CASP)
Williams NH, et al. (2007) (93)	UK	Research (published paper)	Systematic review and meta-analysis	Low relevance	Conceptually thick	Good (CASP)
Public Health England (2019) (3)	UK	Research (web-based report)	Evidence Synthesis (rapid review)	High relevance	Conceptually thick	Good (CASP)
Duda J, et al. (2014) (94)	UK	Research (published paper)	Cluster randomised controlled trial	Low relevance	Conceptually thin	Good (CASP)
Kok M, et al. (2016) (95)	UK	Research (web-based report)	Before-and-after Study	Low relevance	Conceptually thin	Fair (NIH)

Mercer S, et al. (2017) (96)	UK	Research (web-based report)	Mixed-methods study	High relevance	Conceptually rich	Good (MMAT)
Isaacs AJ, et al. (2007) (97)	UK	Research (published report)	A parallel-group, randomised controlled trial	Low relevance	Conceptually thin	Fair (CASP)
Flannery O, et al. (2014) (98)	UK	Research (web-based report)	Mixed Methods Study	Low relevance	Conceptually thick	Fair (MMAT)
Mills H, et al. (2012) (99)	UK	Research (published paper)	Mixed Methods Study	Low relevance	Conceptually thick	Good (MMAT)
James D, et al. (2009) (100) linked to (99)	UK	Research (published paper)	Prospective Population-based Longitudinal Study	Low relevance	Conceptually thin	Fair (CASP)
Penn L, et al. (2013) (101)	UK	Research (published paper)	Mixed Methods Pilot Study	Low relevance	Conceptually thin	Poor (MMAT)
Dayson C, et al. (2016) (102)	UK	Research (web-based report)	Mixed Methods Study and Economic Evaluation	High relevance	Conceptually thick	Fair (MMAT)
Kimberlee RH (2016) (103)	UK	Research (web-based report)	Mixed Methods Study and Economic Evaluation	High relevance	Conceptually thick	Fair (MMAT)
Wormald H, et al. (2004) (104)	UK	Research (published paper)	Qualitative Focus Group Study	Low relevance	Conceptually rich	Good (CASP)
Jepson R, et al. (2010) (105)	UK	Research (web-based report)	Mixed Methods Study	Low relevance	Conceptually rich	Good (MMAT)
Graham RC, et al. (2005) (106)	UK	Research (published paper)	Mixed Methods Study	Low relevance	Conceptually thick	Fair (MMAT)
Din NU, et al. (2015) (107)	UK	Research (published paper)	Qualitative Study	Low relevance	Conceptually rich	Good (CASP)

Rouse O, et al. (2011) (108)	UK	Research (published paper)	Cross-Sectional Study	Low relevance	Conceptually thin	Fair (NIH)
Brandling J, et al. (2007) (109)	UK	Research (web-based report)	Mixed Methods Pilot Study	High relevance	Conceptually thick	Poor (MMAT)
Dinan S, et al (2006) (110)	UK	Research (published paper)	Prospective cohort study	Low relevance	Conceptually thin	Poor (CASP)
Moore GF, et al. (2013) (111)	UK	Research (published paper)	Mixed Methods Study	Low relevance	Conceptually rich	Good (MMAT)
Wormald H, et al (2006) (112)	UK	Research (published paper)	Qualitative Focus Group Study	Low relevance	Conceptually rich	Fair (CASP)
Penn L, et al. (2013) (113) linked to (101)	UK	Research (published paper)	Qualitative Substudy	Low relevance	Conceptually thick	Good (CASP)
Kier Business Services Limited (2016) (114)	UK	Research (web-based report)	Mixed Methods Evaluation	High relevance	Conceptually thin	Poor (MMAT)
See Tai S, et al. (1999) (115)	UK	Research (published paper)	Cross-sectional Study	Low relevance	Conceptually thin	Fair (NIH)
Penn L, et al. (2014) (116) linked to (101)	UK	Research (published paper)	Qualitative Study	Low relevance	Conceptually thick	Good (CASP)
Mistry B, et al. (2017) (117)	UK	Research (web-based report)	Mixed Methods Study	High relevance	Conceptually thin	Poor (MMAT)
Steadman K, et al. (2016) (118)	UK	Research (web-based report)	Qualitative interview and Case Study	High relevance	Conceptually thick	Poor (CASP)
Price S, et al. (2017) (119)	UK	Research (web-based report)	Literature Review	High relevance	Conceptually thick	Fair (CASP)

Impetus Community Navigation (2018) (120)	UK	Research (web-based report)	Before-and-after Study	High relevance	Conceptually thin	Poor (NIH)
Jones T, et al. (2009) (121)	UK	Research (web-based report)	Mixed Method Study	High relevance	Conceptually thick	Poor (MMAT)
Gidlow C, et al. (2007) (122) linked to (123)	UK	Research (published paper)	Cross-sectional Study	Low relevance	Conceptually thin	Good (NIH)
Crone D, et al. (2004) (123)	UK	Research (published paper)	Case Study			
Johnston L, et al (2005) (124) linked to (122) and (123)	UK	Research (published paper)	Cross-sectional Case Study	Low relevance	Conceptually thin	Good (NIH)
Crone D, et al. (2008) (125) linked to (124)	UK	Research (published paper)	Cross-sectional Study	Low relevance	Conceptually thin	Good (NIH)
Pavey T, et al (2011) (126)	UK	Research (published report)	Systematic review and economic evaluation	Low relevance	Conceptually thin	Good (CASP)
Tava'e N, et al. (2011) (127)	New Zealand	Research (published paper)	Qualitative Study	Low relevance	Conceptually thick	Fair (CASP)
Martin C, et al. (1999) (128)	UK	Research (published paper)	Mixed Methods Study	Low relevance	Conceptually thick	Fair (MMAT)
Schmidt M, et al. (2008) (129)	The Netherlands	Research (published paper)	Mixed Methods Study	Low relevance	Conceptually thick	Good (MMAT)
Kimberlee R, et al (2015) (130) linked to (90)	UK	Research (published paper)	Qualitative Study	High relevance	Conceptually thick	Fair (CASP)
ERS Research and Consultancy (2013) (131)	UK	Research (web-based report)	Mixed Methods Study	High relevance	Conceptually thick	Poor (MMAT)

Grayer J, et al. (2008) (132)	UK	Research (published paper)	Before-and-after Study	High relevance	Conceptually thin	Good (NIH)
Friedli M, et al. (2012) (133)	UK	Research (web-based report)	Mixed Methods Study	High relevance	Conceptually thick	Poor (MMAT)

Table S2c. Quality appraisal additional search (n=4)

Authors (year)	Country	Type of paper	Study Design	Relevance	Richness	Rigour
Lowe T, et al. (2019) (134)	UK	Research (published paper)	Case Study	High relevance	Conceptually rich	Good (CASP)
Harlock J. (2014) (135)	UK	Research (web-based report)	Qualitative Study	Low relevance	Conceptually rich	Good (CASP)
Fraser A, et al. (2018) (136)	UK	Research (published paper)	Literature review	Low relevance	Conceptually rich	Good (CASP)
Milbourne L. (2019) (137)	UK	Research (published paper)	Case Study	Medium/High relevance	Conceptually rich	Good (CASP)

Table S2d. Quality appraisal of papers identified through database alerts (n=9)

Authors (year)	Country	Type of paper	Study Design	Relevance	Richness	Rigour
Aggar C, et al (2020) (138)	Australia	Research (published paper)	Before-and-after Study	High relevance	Conceptually thin	Poor (NIH)
Beardmore A (2020) (139)	UK	Research (published paper)	Qualitative Study	High relevance	Conceptually thick	Fair (CASP)
Tierney S, et al (2020) (140)	UK	Research (published paper)	Realist review	High relevance	Conceptually rich	Good (CASP)
Kellezi B, et al (2019) (141)	UK	Research (published paper)	Mixed Methods Study	High relevance	Conceptually thick	Good (MMAT)
Jensen B, et al (2020) (142)	Denmark	Research (published paper)	Qualitative Study	Low relevance	Conceptually thick	Fair (CASP)
Wallace c, et al (2020) (143)	UK	Research (published paper)	Mixed Methods Study	High relevance	Conceptually thin	Good (MMAT)
Frostick C, et al (2019) (144)	UK	Research (published paper)	Qualitative Study	High relevance	Conceptually thick	Fair (CASP)
Mercer SW et al (2019) (145) linked to (96)	UK	Research (published paper)	Quasi-experimental cluster-randomized controlled trial	High relevance	Conceptually thin	Good (CASP)
Payne K, et al (2020) (146)	UK	Research (published paper)	Qualitative Study	High relevance	Conceptually rich	Good (CASP)

6. **Supplementary Table 3 (Table S3). Context-Mechanism-Outcome Configurations (COMC) developed from the reviewed literature and corresponding data extracts.**

CMOC1. Stakeholders' individual characteristics (C), such as enhanced buy in, vocation and knowledge (M), make holistic, relational and redistribute SP more likely (O).*	
Buy-in	- *'Another barrier to collaboration was negative perceptions of VCS organisations and their role in addressing health inequalities held by GP staff'* (52)
Vocation	- *"I just love working with people. It's quite a privilege to be part of someone's journey, even if it's very subtle […]. It's just about helping someone build confidence and having faith, and giving some hope to someone, and saying this is possible."* (139)
Knowledge	- *'GPs also discussed concerns about referring due to limited knowledge and understanding of the pathway […]'* (141)
CMOC2. The development of trustful, supportive, convenient, bidirectional, informed and transparent (M) interactions between stakeholders (C), make holistic, relational and redistribute SP more likely (O).*	
Trustful	- *"If, I mean, even if possibly another doctor would have recommended it, the thing is I know [name of GP]. We know each other for so long, I trust him. And I trust him that he knows me well enough, so I said "yeah okay"." Service user* (13) - *Relationships were "the thing that makes [GP- VCS collaborations] work" (VCS staff). Knowing someone's name, although a small detail, was thought to make collaborative working much more likely. For example, clinicians described referring patients more often to a named person that they know and trust […]* (52)
Informed	- *'(…)* [information on] *the specifics on the particular activity on offer were felt to be important to patients' receptiveness (…). An example of a mechanism to ensure fear of the unknown is overcome might be a printed resource'* (30) - 'Clear information about the role and remit of link workers should avoid misunderstandings and unrealistic expectations.' (140)
Supportive	- *"I just expected the Link Worker to introduce me to the gym, […] if it had just been [that] I would have turned round and […] gone the opposite direction. But because of the way it was so gradually and really professionally linked into different things, I just felt as though I'd floated into it."* Service user (35) - 'There's people doing better than you and there's people doing worse than you and you're on some kind of continuum … but I think when you meet people … who also have had problems, it kind of reminds you that you're not alone and that there's hope because … you're all in it together …' (146)
Transparent	- *'Shared understanding among clinical and non-clinical staff of what can be expected by each partner, the scope of the SP service, (…) facilitates the implementation […] of SP services. […] Lack of shared understanding may result in the lack of mutual trust […] and prevent effective partnership'* (56)

Bidirectional	- *"What I'd really like is link workers to come along on an occasional basis (…) to join the team meeting (…) and maybe at that point bring a list of people that the practice have referred […] and perhaps giving us a little bit of feedback on … […] "this person we've not actually managed to meet face to face" or "this person's really engaging, they seem to be doing really well"* (131)
Convenient	- *'The main point is that the referral systems were developed over time by practice staff themselves, and thus were able to fit into practice routines'* (96)
CMOC3. Organisational contingencies (C), including continuity of care, resource adequacy, training opportunities, information governance, a predisposed practice culture and leadership and accessibility (M), make holistic, relational and redistribute SP more likely (O).*	
Predisposed practice culture	- *'It was recognised that there was already a level of existing congruence within the primary care teams with the social ethos of SP and it was this commonality across partners that fostered interdisciplinary non-hierarchical working and early implementation.'* (25)
Leadership	- *'General practitioners were thought to be key leaders in collaborations because of their professional and social standing. Other potential leaders were GP practice managers, VCS (…) managers, senior clinicians and commissioners in positions to be gatekeepers and facilitate a hospitable environment.'* (52)
Training opportunities and supervision	- *'Training for referrers on how to explain SP to patients, i.e. words and examples they can use, is likely to encourage referrals to SP services.'* (56) - *Peer support was appreciated as the work could leave Link Workers feeling isolated and they enjoyed being part of a team; however, the most important form of support was that of clinical supervision and the safe space it provides to offload and discuss difficult patients and challenging situations.'* (144)
Information governance	- '*Survey respondents suggested that a directory of services be developed and made accessible to all. This would allow clinicians to be constantly updated with what services the SP team are referring into. […] They felt it could also be used as a resource […] to explain to patients what the SP service can offer […]'* (22)
Continuity of care	- *"[…] you can have a really good relationship with an organisation, and then a worker leaves and it completely changes the dynamic. […] you've built up a relationship […], you feel like you've a good sense of each other, each other's roles, and then somebody moves on and that's lost" Link worker* (96) - *'There was something about the un-conditionality and continuity of support from CLPs [link workers] that was valued by patients. […] much of the work actually involves one-to-one support over a period of time rather than simply linking patients to community resources.'* (96)

Resource adequacy	- *"In ten-minute consultation, you have to go through whatever they (patients) came up with, medication review and something else and then you haven't much time for this [SP]. (…) we have to ask for smoking because it is in QOF points but not drinking or exercise (…)" GP2* (107) - *"[…] there is huge demand for the SP services and workload is quite high […]. Time is spent case managing with no protected time to engage with the services that are referred into." Link worker* (22)
Accessibility	- *"Well, I was enthusiastic about this, because I anyway wanted to start exercising. But a fitness centre will cost you around 45, 55, 65 euros, and I can't pay that. I'll be honest, we have a low income. I don't have a job, my husband doesn't have a job […]. So for me, this intervention was a way to do this.* (129) - *"The recipes she gave us were the type of food we wouldn't have eaten anyway. We've realised we can't change our food. We can't. I've tried"* (147).
CMOC4. A policy context (C) that sustains bottom-up and coherent policymaking, stable funding and suitable monitoring (M), leads to holistic, relational and redistribute SP (O).*	
Bottom-up policymaking	- *'Being built around a local community and local need, drawing on the skills of the community, was thought to be essential for successful GP- VCS collaborations. […] "Start off small, link yourself to a practice, talk to your workers first so they have got a good idea who to work with, engage yourself with that GP, don't promise them anything just slowly and gradually build that relationship, institute bits of work […] and just grow it from there" (1, VCS staff)'* (52)
Policy coherence	- *There was an expectation that the third sector had significant spare capacity and would be able to accommodate for all the referrals, regardless of their number. However, in their responses, representatives from the third sector drew attention to the 'unprecedented' level of funding cuts for social care as a major problem for continued and sustainable delivery of social prescribing services. (…)* (58)
Stable funding	- *'(…) effective partnerships are adversely affected by the short term nature of funding: Its harder to get people to invest time in it to develop it as they're always thinking 'is it just going to stop in nine months', we have spent all this time and it is stopping anyway, so people may not invest time in it, as viewed as one of those things that will "stop again".'* (37)
Suitable monitoring	- *'Providers also reported that, if they were free to choose how to use the recording tools given to them, they would use them differently. For example, they would use a well-being metric to record client progress at time intervals chosen by the worker, based on their understanding of client need, rather than at the rigid time-intervals demanded by the (…) performance indicators.* (134).

* The full list of references supporting CMOC 1, 2, 3, and 4 statements are available in Supplementary File p70-119.

7. References and data extracts for CMO1

CMOC1. Stakeholders' individual characteristics (C), such as enhanced buy in, vocation and knowledge (M), make holistic, relational and redistribute SP more likely (O).

- **"Buy in"** (acceptance/beliefs/standpoint):

This general lack of understanding and awareness, and the poor efforts to promote and advertise the scheme indicate that many patients who could benefit from it are not being offered the chance to do so. Access was restricted and appears dependent upon the enthusiasm and knowledge of the particular GP or nurse. (104)

(…) *a GP suggesting, 'that is the crux of partnership working … you need … some people who have that motivation, skills, that relationship to keep things going'.* (25)

First, some suggested that they personally found participation in novel projects exciting and some informants felt that their practice was seen as an 'early-adopter' of innovation. Second, many held favourable perspectives towards a social model of primary care; a GP stating, 'my practice strives towards the ethos of holistic health care'. Some adopted this stance in relation to a critique of a 'medical model'; a GP for example suggesting, 'we need to get away from the narrowness of medical practice … we do need to look at the people holistically within the society'. (25)

Another barrier to collaboration was negative perceptions of VCS organisations and their role in addressing health inequalities held by GP staff. Such attitudes stem from the pre- eminence of a medical model of health—that GPs "have got all the answers" (11, VCS staff)—and a misunderstanding of (1) the underlying socioeconomic determinants of health and (2) VCS organisations. Where VCS organisations were seen by GP staff as only able to contribute "on the edge"of core services, then collaboration became something additional rather than complementary to their work (52)

Factors that were perceived to reduce health professionals' referral to ERSs were lack of enthusiasm for the project, poor knowledge of the scheme and poor interpersonal skills on behalf of the health professional. (148)

Buy-in and support from the General Practices is essential. There is a very wide variation across the CCG in this ingredient (12)

Clinicians interviewed mentioned that the greatest challenge to embedding the service was changing their own and their colleagues' mindsets. Inevitably this required a culture change amongst clinicians, seeing the whole patient and not just the clinical need. Interviewees suggested some clinicians were more accustomed to 'relinquishing control' and enabling the social needs of patients to be met by other professionals such as Social Prescribers. (22)

First, it is likely that significant 'buy in' from stakeholders is needed for SP services to identify potential referrals, raise awareness of the service and access patient data. Future schemes should ideally be designed with input from relevant stakeholders and ensure that SP teams are supported in developing and maintaining these relationships over the long term. (41)

The process of obtaining health professional buy-in proved more arduous at times. Although many health professionals were keen to get involved in the programme, the Programme Coordinator described how "some GPs…were not interested and did not see their role at all on the programme". This was a somewhat "unexpected" challenge as the Programme Coordinator had "thought there'd be a little bit more of an open door in recognizing an accessible programme in the local area where they could refer their patients into". This sense of apathy was later reflected in an interview with one GP who questioned the need for health professional involvement in the programme: "I am not sure why you need the GP's to be honest…people could just self-refer" (Health Professional no. 2). (77)

Social prescribing connector roles are relatively new to the NHS. 'Buy-in' to this type of service and people delivering it is the important first step to producing intended outcomes. This relates to legitimising the service and a belief in individuals undertaking this role. Key stakeholders (e.g. patients, GPs, commissioners, primary care staff) must 'buy-in' to the social prescribing connector role as a judicious route to addressing 'nonmedical' needs; otherwise, the service may be dismissed by patients as a means of blocking them from seeing their GP, and by healthcare professionals (HCPs) as another 'gimmick' (a danger if funding is short-term and the service is branded as a pilot). (140)

- **Vocation:**

The idea that people don't become social prescribers for monetary gain was important for more than one participant, with two expressly stating that they had either taken a large pay cut to work in the field, or that they were not 'doing it for the money'. Yet, despite the potentially negative impact of a lower salary, overall job satisfaction appeared to be very high: "I just love working with people. It's quite a privilege to be part of someone's journey, even if it's very subtle - and sometimes social prescribing is very subtle. It's just about helping someone build confidence and having faith, and giving some hope to someone, and saying this is possible." (Social Prescriber, Community-based Service, SP Holistic - 2) 'We haven't got a magic wand, but you soon see when their confidence builds up – you see the difference it makes. That is the best thing.' (Senior Practitioner, Community-based Service, SP Holistic - 6) (139)

- **Knowledge:**

GPs also discussed concerns about referring due to limited knowledge and understanding of the pathway and poor feedback on their referrals (all of which could influence the referrers' willingness to continue engaging with the pathway). (141)

Boundaries were also key to working with health professionals particularly in terms of referral criteria, which was not always clearly understood by GPs. Link Workers felt the service was sometimes used as a dumping ground for difficult patients. (144)

Previous experience working face to face with people was felt to be important and Link Workers also valued their own life experiences for equipping them with useful skills. 'I've been there myself as well, I'm one of them, I was one of them and it's just like, for me it was eye opening and how to, how to talk to people and not to judge anybody.' (LW8, Scheme 1). These kinds of experience helped Link Workers to sit with whatever was brought to the session and relate to the patient without sharing every detail of their own personal situation. (144)

In some instances the knowledge of health centre staff regarding the programme was also questioned: "the staff in the…health centre didn't know anything about it …[regarding] where you go with the form or what you do or…there's kind of a blankness about it (Female Referred Participant). (77)

The same survey showed that GP knowledge of surrounding community organisations was poor overall with 61% knowing 'a little or not at all' about the presence of local community organisation that could offer support and identifying their lack of knowledge of what is available as one of the major obstacles to referral. (58)

Clinical competence also featured in these accounts, albeit to a lesser extent, closely linked to the GP's personal knowledge of people and their families (149).

Factors that were perceived to reduce health professionals' referral to ERSs were lack of enthusiasm for the project, poor knowledge of the scheme and poor interpersonal skills on behalf of the health professional. (148)

Even though the prescribers were working in the geographical area of the projects, there was, with the exception of the carers' centre, a lack of awareness of their activities: I'm not fully aware of the services it [the lifestyle project] provides (…) it's not something you hear much about locally. [District nurse 2] (26)

Similarly, VCS representatives who were interviewed as part of the evaluation suggested that some Social Prescribers were not yet fully aware of the extent of the range of services available in the borough, with patients being referred to services which were not always in close proximity to their home. This was reaffirmed by Network Managers who believed that some of the Social Prescribers had to 'build their knowledge base on local services and create their own links and networks', which takes time. (22)

Knowledge of the availability of community resources and how to access them was identified as particularly important (44)

The networking done by our CLP was very helpful. Knowing what resources there are out in the community benefits the team to confidently inform a patient about a service. PM3, email survey 2 (96)

'I think you need a Links Worker (…). Having up to date information constantly, around community resources that you refer into (…)' CLP 5, Fully Integrated Practice, end-of-evaluation interview (96)

However, seven participants (11, 12, 13, 16, 24, 25, 30) obtained welfare benefits advice from their Link Workers, rather than being linked into welfare rights services, demonstrating that some Link Workers drew on their specialist knowledge to assist their client rather than make a referral. (35)

One of the nurses emphasized the fact that people could fall through the cracks as statutory services do not have comprehensive knowledge of what is available in the community: […] for many people it is about their well-being and participation in society. To be part of the community, to prevent cognitive deterioration etc. We joke that [WBC] is the fount of all knowledge, but I do feel that she knows and [has an] answer to those things (HP CHA interview 3). (47)

(…) the success of social prescribing relies on the presence of a link worker with a good knowledge of the voluntary sector and of community development principles and practice, and a flourishing local voluntary and community sector. (60)

MC Coordinators need good local knowledge and connections to be effective. (12)

Most participants viewed the role of the CLP as engaging patients with a network of community resources and providing continued follow-up and support, rather than simply being a referral point. Fulfilment of this role was, unsurprisingly, thought to be contingent on local knowledge: 'Her knowledge of all things knocks me over sometimes, you know, she has a vast knowledge of how she can help families.' (CO3) (50)

The CHAT worker was required to have good knowledge of the voluntary sector and of community development principles and practice. These qualities are very different from those traditionally valued in primary care but eventually a common understanding of the purpose of the scheme was forged. (57)

In providing GPs with a one-stop shop, prescribing schemes that employ a link worker with knowledge of local organisations, can improve patient access to community and voluntary sector resources (Goodhart et al., 1999; Grant et al., 2000; Sykes, 2002). (34)

Link workers' wide knowledge of the range of community services was also valued as separate to the specialist, health-focused knowledge of health-care professionals. …it's important to have someone there, who has a finger on the pulse, knows all these different things. Doctors can't know everything and I mean, what they know obviously helps improve your health, but things like support in the community and things, I don't think enough of them know about it. I don't even know that the practice nurses know enough about it. (P8, female, age 55–59) (42)

CLPs were seen to have an understanding of both primary care and community organisation structure and function, and therefore could help negotiate the communication between these parties; they are '… in a position to champion' (CO27). This feeling was reflected among CLPs, for example, they talked about being more sympathetic to the GP role since becoming a CLP: 'I've experienced it myself as a worker, trying to get a liaison; some kind of relationship with GP surgeries is not an easy thing to do. And now working within the GP practice, you can understand some of the constraints. You know, the contract, the money, and … their surgeries are chock-a-block. So I can see why that relationship, or that link has not really grown over the years.' (CLP2) (50)

The expertise of the professionals and the support they offered was clearly an aspect of the interventions that was valued, particularly in helping participants as they became familiar with using exercise equipment and in knowing the extent to which they should exert themselves. The professional's role in monitoring progress and promoting further progression was also valued. (148)

The fact that Arts on Prescription employs professional artists was respected by participants and referrers: The fact they were professional artists. really inspired her and I think she felt more valued and respected. (R5) R5 described the high-quality art work as 'inspiring': She wanted art and she got an artist. that was fantastic! (R5) (69)

In addition participants evidently believed the GSFs had performed their role to a very high standard as they described them as "very professional" and "very good at their job". (77)

8. References and data extracts for CMO2.

CMOC2. The development of trustful, supportive, convenient, bidirectional, informed and transparent (M) interactions between stakeholders (C), make holistic, relational and redistribute SP more likely (O).

- **Trustful (including sustained, un-hurried, personalised and non-judgmental) interactions:**

Trustful:

Patients may view link workers favourably after discussing the role with a trusted GP, whose referral validates the service. (140)

In general, prescribers expressed a higher degree of trust in organisations that were either provided or endorsed by the statutory sector: You know if it's something that's run by education or the Health Board ... that it will be a certain level, but voluntary agencies I don't know, I can't tell that. [Health visitor 5] This perception seems to be based on an underlying assumption that services provided by the statutory sector are delivered with a certain level of competence, whereas questions were raised about the advice being given by third sector organisations. Linked to these concerns were doubts about their training and monitoring. However, there seemed to be a degree of confusion about third sector organisations. No differentiation was made between groups run by unpaid volunteers and those who employed and trained their workers. (26)

Creating new relationships between partners based on reciprocity and trust may facilitate the implementation and delivery of SP services [31]. A good relationship between navigators and other partners (i.e. general practice staff and service providers), is particularly important, as it promotes effective communication [31, 34]. (56)

The evaluation later found that health professionals felt comfortable referring patients due to high levels of trust and confidence in the CHAT worker's ability to find appropriate voluntary services. (57)

Positive experiences of and relationships with activity leaders were thought to be associated with Adherence: …[things] that would make them return to the gym included suitable qualified staff with more empathy with older people. (Martin & Woolf-May, 1999) Specifically, where a trusting relationship was developed the leader could help overcome barriers: I think the participants were suspicious…at the beginning…some of them came because…they trust him, they know him. (Baker & Irving, 2016) (30)

Face-to-face sessions, and length of each consultation session with SPCs are important, particularly at the first meeting. This appears to build trust and gives the opportunity for

patients to discuss their problems in a non-clinical context, for a period that exceeds what is normally offered by GPs or other professionals in a clinical setting. (58)

Service users emphasised that the navigators' person-centred approach facilitated feelings of trust, control, and readiness to reflect on their current circumstances and their non-medical needs. (13)

Participants consistently reported feeling at ease and relaxed with their Link Worker, which enabled them to develop an open and trusting relationship. The Link Workers' ***person-centred*** *and* ***non-judgemental approach*** *facilitated trust, feelings of control and a readiness to reflect on current circumstances and implement positive changes. Service users felt listened to and valued: '… [Link Worker] really helped me along … they're not judgemental … and they were so easy going and they were just lovely.' (P17, female, 50–54 years) 'She [Link Worker] just brought things up … we'd have a discussion … we just started talking and that's when I just came out with different things … and she gave the feeling that you could open up to her … where some people, you are guarded because you don't want them to know too much of your private life.' (P9, male, 55–59 years)* (35)

To achieve this non-directive enabling of goal-setting and behaviour change, link workers identified the need to be empathic, non-judgemental and use active listening skills to build trust and encourage honest self-reflection. (44)

Link workers' non-judgemental attitudes were highlighted as important for developing a trusting relationship: They make you feel normal, that it's just not your fault. Whatever you're feeling is fine. Whatever you say is fine. (P17, female, age 50–54) (42)

"It's that being able to talk to somebody, and somebody being willing to listen, I think that'sthe crux of it, and not being judgmental." (Male client: interview 12, aged under 50 years. Referred to the social prescribing service by GP) (11)

Although another CLP suggested that it takes time to develop relationships because of people's complex problems which did not reduce attendance but is worthwhile: 'it took time, you know, to build up that relationship with the individual, but you can see just the difference it's made, you know, he knows I'm there and you know I guess it's like chiselling away, each time that I see him, you know, he'll tell me something else' CLP 8, Partially Integrated Practice, end-of-evaluation Interview (96)

Health professional referral was found to be a key factor that had motivated referred participants to uptake the programme. Referred participants relayed how they placed a lot of trust in the recommendations of their GP/nurse, as they felt they had a unique understanding of their health history and thus knew what would benefit them. As a consequence referral was considered much more persuasive than seeing a general advertisement for the programme.(77)

GPs, navigators, and service users have expressed the view that patients' trust in GPs is an important factor promoting primary care patients' uptake of the SP programme: 'If, I mean,

even if possibly another doctor would have recommended it, the thing is I know [name of GP]. We know each other for so long, I trust him. And I trust him that he knows me well enough, so I said "yeah okay."' (Service user 3) (13)

Sustained:

"I knew the community development programmes for a number of years so I had built up a lot of trust with the local communities… it was an open door policy for me really" (Programme Coordinator). (77)

Building up knowledge of the range of support available on a local and borough basis takes time and is vital to an effective social prescribing service. It is supported by the fact that Social Prescribers are aligned to GP Networks, with specific catchment areas, and their on-going liaison work with individual services, as well regular Social Prescribing Forums and networking Breakfast Events, which allow Social Prescribers and VCS organisations to learn collectively about, and keep up to date with, each other's work. (…) Similarly, VCS representatives who were interviewed as part of the evaluation suggested that some Social Prescribers were not yet fully aware of the extent of the range of services available in the borough, with patients being referred to services which were not always in close proximity to their home. This was reaffirmed by Network Managers who believed that some of the Social Prescribers had to 'build their knowledge base on local services and create their own links and networks', which takes time. (22)

The Wellbeing Coordinators suggested that they had worked consistently to build a presence in various geographical areas, building relationships with a number of different services and organisations and understanding the local offer in communities and neighbourhoods: "Individually and collectively they [Wellbeing Coordinators] have worked really hard to get foot hold in their areas, becoming part of forums, neighbourhood networks, health and wellbeing partnerships… and they're not easy to get into, particularly because it's quite a difficult structure to understand, the health and the local area officer patches. It's quite complicated and the team have worked really hard to become involved in those things." (Wellbeing Coordinator Manager) (11)

In a review of several SP projects in the county of Durham what appears to be a proven key to success is the relationship between the primary care providers and the community services delivering the social prescribing activities. These need to be strong and nurtured and develop over time (White and Salamon, 2010). SP is not a bolt on or a quick fix as some local interviewees have suggested in the course of consultation around this rep (90)

They reported that they had taken the initiative and responsibility for building connections with potential prescribers, and that this effort had taken time: We've built up a relationship ... that's taken quite a long time ... we've managed to .. . gain that trust and let them see that, yes we do, em, deliver quality services. [Community health project provider] (26)

(1, VCS staff) GP- VCS collaborations did not materialise immediately but took time for sufficient trust to develop between partners. The VCS organisations involved here were "established" in their communities and had "stability, that reliability" (16, GP staff) that GP staff valued. Over time collaborations became part of normal working practice. (52)

The key active ingredient for the service is the time to develop the relationship with the client, holistically structured around a guided conversation. (12)

(…) There was something about the un-conditionality and continuity of support from CLPs that was valued by patients. One-to-one support to link patients to COs was seen as important in the Programme's theory of change, but the very in-depth work over a long period of time on a range of complex issues was not articulated as a clear part of CLP's work in the early stages of the evaluation. There is the sense, from both patient and CLPs interviews, that much of the work actually involves one-to-one support over a period of time rather than simply linking patients to community resources. This could be paraphrased as 'fixing not linking' or 'fixing as well as linking' and is an important learning point for the Programme in the future (96)

Although another CLP suggested that it takes time to develop relationships because of people's complex problems which did not reduce attendance but is worthwhile:
'it took time, you know, to build up that relationship with the individual, but you can see just the difference it's made, you know, he knows I'm there and you know I guess it's like chiselling away, each time that I see him, you know, he'll tell me something else' CLP 8, Partially Integrated Practice, end-of-evaluation Interview (96)

Some participants expressed negative views primarily due to personnel changes among link workers that resulted in lost continuity. These accounts highlighted the importance of the link worker/service user relationship and how changes to this highly-valued and often therapeutic relationship could be upsetting and lead to disengagement (147)

A key aspect of the WBC service is the ability to spend time with people, and stay involved for weeks or months (…) allowing the WBC to discuss issues in depth and to build relationships of trust (47)

It also relates to the connection between patient and link worker; the latter takes time to get to know the former's situation, develops with them a personalised action plan and, depending on the patient, offers emotional support. Such bonding social capital may make patients feel safe to open up to a link worker. (140)

Un-hurried:

Patients felt that the relaxed atmosphere during PSS consultation allowed them time to gather their thoughts and explain how they were feeling without being rushed. This approach was considered vital by all volunteers, as it allowed patients to get to the 'root' of their problems. Rushing patients, on the other hand, was thought to inhibit such an exploration. The relaxed

approach of the PSS was contrasted with the GP consultation by both volunteers and patients, GPs being considered to have far less time to listen to patients. (76)

Social Prescribers felt that they provided a unique service in primary care by effectively removing time bound appointments, with some Social Prescribers spending up to one hour in their first consultation with patients and in a minority of cases also accompanying patients on initial visits to the service they had been referred into, where there is capacity (although some Social Prescribers do this in their own time). The time Social Prescribers had to discuss issues was thought to provide high levels of satisfaction to patients (22)

Patients also described feeling they had time to express themselves and allow the CLP to understand their problems and difficulties (43)

A key aspect of the WBC service is the ability to spend time with people, and stay involved for weeks or months. The observed consultations lasted between 20 and 45 minutes, allowing the WBC to discuss issues in depth and to build relationships of trust, and acceptance of previously refused support (47)

Face-to-face sessions, and length of each consultation session with SPCs are important, particularly at the first meeting. This appears to build trust and gives the opportunity for patients to discuss their problems in a non-clinical context, for a period that exceeds what is normally offered by GPs or other professionals in a clinical setting. (58)

'There was more time which meant I could discuss more. It takes a long time to be able to talk about things'(…) 'She is very professional and caring – much better than the psychiatrist I have to see who tells me to stop talking!'(…) After meeting the coordinator for the first time, patients unanimously felt relieved and glad to have the time to talk. Many spoke of being heard and understood and felt the coordinator listened well and never issued instructions but encouraged them to identify their own routes forward. (48)

Lack of trust in navigators, lack of time within busy consultations, lack of confidence to explore the social determinants of health, forgetting about the availability of SP, and scepticism about patients effectively attending activities in the third sector once referred, were identified as barriers to making referrals to SP programmes [28, 29, 31, 33]. (56)

They liked having time to discuss challenges thoroughly and receiving tailored support. (141)

Personalised:

The sub-project study of perspectives of staff in COs on the Links Worker Programme showed that individual professional relationships were critical to the connections made. Staff turnover, which can be common in small COs with insecure funding, could jeopardise these relationships: 'Sometimes you can have a really good relationship with an organisation, and then a worker leaves and it completely changes the dynamic. You know, you've built up a relationship with one person, you feel like you've a good sense of each other, each other's roles, and then

somebody moves on and that's lost. And the nature of the third sector is that that's continuous often.' CLP 6, interview 43 (96)

CLPs and most of the community organisation representatives clearly valued their collaborative relationships; however, both found it difficult to progress them to a more lasting collaboration between organisations independent of the specific individuals involved (50)

Relationships were "the thing that makes [GP- VCS collaborations] work" (1, VCS staff). Knowing someone's name, although a small detail, was thought to make collaborative working much more likely. For example, clinicians described referring patients more often to a named person that they know and trust in a VCS organisation (52)

Having personal contact enabled prescribers to be aware of a person to contact rather than just a service: We have a very nice welfare lady .. . I would ask [name] to visit them [service users]. [District nurse 4] These connections seemed to enhance knowledge and confidence in the services being provided. (26)

Referring patients to a single known person reassured clinicians that the referral would be dealt with appropriately. One individual contrasted this to other external schemes where they were referring people 'into a black hole'. (57)

For the link workers, it has been a gradual process of building a relationship with the Maryfield practice and establishing lines of communication: "Communicating with the practice, we've got better relationships. It's easier to speak to the practice now, we know who to contact. Say I know that one GP is free on Wednesday afternoon until about 3 o'clock when patients come in. I know if I'm really worried, I know she's free~ and I can knock on the door. "I feel we're more part of the practice, what's going on. "I know the practice are happy with what we're doing, it's just my personal preference I still don't think GPs know our names I know the reception staff and the practice nurse do, but I don't think some of the GPs do. [link worker interview] (133)

They felt that staff provided a one-to-one service and by tailoring the exercise sessions to each individual and by considering their health issues it resulted in an increase in the participants' confidence. (…) "I met the staff at the scheme and they reviewed the medical data that they had been provided and then they created a programme" (98)

Although set physical activity plans had been designed for the Green Steps programme, the GSFs said that they commonly tailored these plans to suit the capabilities of different participants: "there's no way that a class can be conducted by what's written down on the page…you have to be able to…vary it for different people… but generally keep to the main track of the class" (GSF no. 2). GSFs also ensured each class had a pressure-free ethos, and advised each participant to heed their physical limits. This individualised and understanding approach was highly valued by programme participants. (…) Many participants also inferred that the relationship they had formed with the GSFs increased their sense of commitment to the programme and made them feel more obliged to complete it: "if you build up a relationship

with somebody like Mary [GSF] you're not going to let her down" (Female Referred Participant).* (77)

This personalised service was appreciated and, allied with the overall support and supervision, had encouraged them to continue: 'I thought it was the most important part of it. It really encouraged you because you had somebody there on a one-to-one basis who actually talked you though everything and explained things to you and worked it all out for you. It made you feel as if they were taking it seriottsly.' (Dorothy, age category 55-64). Generally, comments about exercise leaders were extremely positive - participants found staff friendly, helpful, encouraging and supportive. The attitude and approach taken by the exercise leader was crucial in maintaining adherence. If participants felt comfortable in the gym environment and were welcomed by staff, they were more to return: 'And I mean, you know, you walk in and they actually remember your name, which is nice.' (Carol, age category 35-44) (104)

The Link Workers' person-centred and non-judgemental approach facilitated trust, feelings of control and a readiness to reflect on current circumstances and implement positive changes. Service users felt listened to and valued: '… [Link Worker] really helped me along … they're not judgemental … and they were so easy going and they were just lovely.' (P17, female, 50–54 years) 'She [Link Worker] just brought things up … we'd have a discussion … we just started talking and that's when I just came out with different things … and she gave the feeling that you could open up to her … where some people, you are guarded because you don't want them to know too much of your private life.' (P9, male, 55–59 years) (35)

the link worker was a central figure in their experience of social prescribing and the majority of participants had developed strong relationships with their link worker. Indeed, some described the relationship in terms of friendship: (42)

They may start by working on simpler difficulties to resolve (e.g. arranging for mobility equipment to be installed into someone's home), before tackling more challenging issues (e.g. social isolation following bereavement), so that patients lacking motivation to change are not discouraged and to enable people to experience incremental successes. Link workers may need prolonged engagement with a patient to work in this way. (140)

Co-produced, non-judgemental:

'She started to help me open up possibilities rather than tell me things I had to do' (48) [co-produced relationship between link workers and patients]

"I was free at any time to say 'no I'm not comfortable with this I don't like it' (…) she made that very clear that any time that I didn't feel comfortable with anything that she maybe suggested or got me to have a look at, if I didn't like the idea it was no problem." (Female SP user) (11) [co-produced relationship between link workers and patients]

"It's an agreement between two people … It's not an 'us and them' it's an 'us', it's got to be together" (P14, Interview, Phase 1). (44)

'Equitable relationships required a realignment of traditional power roles and for GP staff to adopt a more social model of health; recognising the contribution of VCS organisations and making efforts to "reduce the status gap" (10, GP staff).' (52)

- **Informative and bidirectional:**

Most agreed more information, e.g. a leaflet from the GP, would be helpful. (49)

improved communications at referral stage between HCP and patient, including use of the patient leaflet, may help patients (who are often distressed) understand a little more about the process they are being referred to. (48)

All of the patients attended the PSS with little or no knowledge of what to expect. This led five of the patients to form an expectation that the PSS was there to provide counselling. Consequently, patients became confused about the role of the PSS upon encountering them or, in two cases, disappointed that this role was not as expected, e.g. counselling. Those responsible for referring patients to the PSS, such as GPs and practice nurses, would appear to have been in an ideal position to provide patients with information about the service (76)

Clear information about the role and remit of link workers should avoid misunderstandings and unrealistic expectations. Patients may be deterred from seeing a link worker if they believe this is part of formal social services, regard referral as stigmatising or feel that their situation requires medical intervention. Making time to explain the service to HCPs and patients (e.g. in face-toface meetings, via accessible leaflets) is therefore important. (140)

First, the specifics on the particular activity on offer were felt to be important to patients' receptiveness, with reports of a fear of the unknown or elements of activities being challenging. An example of a mechanism to ensure fear of the unknown is overcome might be a printed resource: …it's quite daunting coming into the leisure centre for the first time, they're not too sure what they are going to be doing…so we are trying to design a leaflet now which we are going to put out…saying exactly what they are required to do. (Moore, Moore, & Murphy, 2011). (30)

Survey respondents suggested that a directory of services be developed and made accessible to all. (…). They felt it could also be used as a resource for referrers to explain to patients what the social prescribing service can offer, which could help facilitate new referrals and improve their quality. (22)

Yeah, I mean, when I asked the GP about it in the first place she sort of looked at me in amazement and said 'oh well, I don't think we do this', and then she went and looked and said 'oh yes we do'. (Dorothy, age category 55-64) (…) Any detailed discussion or explanation of the

scheme was often not forthcoming from the GP or nurse. It appeared that most staff merely asked the participant if they would like to be referred and provided the necessary paperwork. (104)

One qualitative study reported that patients had poor knowledge of the service prior to attending their appointment with the link worker resulting in some feeling that the service did not meet their expectations.23 Another evaluation identified a similar issue regarding a lack of understanding of the service among participants. (5)

Some service users reported that they didn't fully understand the SP programme when they were referred by their GP. Receiving a call from the navigator provided patients with an opportunity to ask for clarification, which seemed to promote their engagement with the first appointment: 'I asked what this is actually for. And then she [the navigator] said all we do is sit there, we talk, I find out if there is anything I can help with, any introductions, any particular type of group or anything you know associations that I could get you involved with or introduce you to [. . .] Yeah, and then I came here to the surgery.' (Service user 2) (13)

Although they acknowledged they had been made aware of participants physical ailments, they believed more detailed information on the emotional or psychological state of participants could help them perform their role more effectively by enabling them to provide extra support to participants where necessary. GSFs gave examples of participants who they later found out had depression, were recently bereaved or who were extremely anxious about attending the programme and stated "if I knew a little bit more I might just have been able to handle things maybe better in the class". (…) Some walking leaders explained how a lack of awareness of participants health conditions had made them fearful of "pushing participants too much" on the walks as they were concerned for participants safety. They believed they should be provided with basic information on the health status of participants (e.g. advised if participants' were asthmatic or had a heart condition) as a safety precaution; which in turn would make them feel more confident within their role (77)

The volunteer navigators also reported (…) that they were often receiving referrals on a plain piece of paper, sometimes just a name and phone number. This may have put clients off as Volunteers had to make contact without knowing which GP had made the referral and had no indication of what the client's needs may be. (80)

As well as communication from social prescribing services to healthcare staff, communication the other way – to services from GPs – is also important. Referrals from health workers do not always include information about the patients' backgrounds, medical history or additional support or treatment that they are receiving. (59)

Outcomes need to be fed back to clinicians so they learn what happens to their patients. (49)

Data from learning events and stakeholders' interviews showed that clinicians would appreciate more information about patients they had referred to SPCs (Bertotti et al., 2015). (58)

(…) delivering feedback on participants' progress encourages GP support for social prescribing (5)

A theme from these meetings (and indicated in the HCP survey) is a request from many clinicians to gain a better understanding of the services referred into. The one-stop nature of the SP service relieves the HCPs of having to know about multiple services in the community. However regular updates on services help clinicians engage more specifically with patients about SP and ascertain whether a SP referral is appropriate (48)

Examples of valuable communication were keeping the other party updated regarding internal organisational changes (i.e. staffing) and feeding back outcomes from referrals. Feedback through both formal updates and informal interactions provided reassurance that the collaboration was productive and built confidence in the relationship. (52)

In one service, when GPs 'clicked' to refer someone to social prescribing they could also click to specify whether they required feedback (cs2). If this was provided, it could give GPs confidence about efficacy and that their referrals were followed up and acted upon (cs2) (59)

"It would be good to get more updates, and to know who is referring people on to what organisations. Just to know more about what is happening and how it is working. We used to have an onsite health trainer here, and it would be good still to have contact with health trainers and other providers. They can talk to patients in the waiting room as well as taking referrals from us" (…) "What I'd really like is linkworkers available to practices for practice meetings, multi-disciplinary team meetings, to come along on an occasional basis; once a month maybe, to join the team meeting, to be there as a reminder of – and maybe at that point bring a list of people that the practice have referred through the system if you like and perhaps giving us a little bit of feedback on … "this person hasn't engaged" or "this person we've not actually managed to meet face to face" or "this person's really engaging, they seem to be doing really well" so that kind of … a little ten minute slot with a linkworker on a monthly basis in the team meeting would be good and also would function to remind the team that they're there and it's functioning and it's available" (131)

The majority of respondents to the referrer survey (82%, 124) were happy with the feedback they received about the clients they referred. Where referrers were not happy, they cited that they had not heard regarding patient attendance or outcomes. Feedback was seen positively when referrers could look at the consultation outcomes directly through the Social Prescriber's consultation notes on EMIS. Issues with feedback were also raised during the interviews with referrers as an area for improvement. They felt that Social Prescribers ought to provide some feedback on their consultations with patients and felt any omissions were in part due to not all Social Prescribers having access to EMIS. Clinicians reported sometimes receiving feedback via the patients themselves. (22)

When probed on possible improvements to the programme, the HPs recommended a process where feedback on whether the patients they had referred had completed or dropped out of the programme. They felt that they could use this information in future discussions about their health issues, and refer those who may need it. (98)

(…) I think I probably don't use the exercise referral scheme as much as I would do, probably about not getting any feedback (from the exercise referral scheme) and referring into a vacuum (Female GP #2) (…) Knowledge as to patient progression and patient benefits was an important aspect of the process for some health professionals. The method and content of feedback required varied from one health professional to another and ranged from simple acknowledgements that a patient has attended and/or completed the scheme to information as to the actual physical activity that the patient is engaged in (106)

Another key issue identified was ongoing communication with health professionals, from initial discussions and promotion of the scheme, through to feedback on the patients' progress. Presenting the scheme at practice meetings, summarising the existing evidence base and how the scheme works was a common approach used to promote the existence of the scheme. Regular - perhaps 6 monthly - updates as to how the scheme was progressing was also a strategy employed and helped to publicise the scheme and also reassure health professionals that it was still in existence. (105)

For one GP, the presence of the CLP had increased confidence in the organisations: '… what I'm finding more and more is I can say to patients "Have a think about this organisation. We've got a few people who've found it helpful" and I can do that with confidence because I know [the CLP] has maybe been with one person [to the organisation] then sent another, you know?' GP 5, Partially Integrated Practice, in-depth interview (96)

Feedback on service users' journeys and outcomes to GPs and practice staff, via the navigator e.g. during regular meetings or a short periodic report, helps general practice staff to understand how patients progress after their referral [30, 31, 33, 34]. In addition, structured contact and regular communication between navigators and practice staff, served as a reminder for SP, encouraged a higher number of referrals, and ensured a greater appropriateness of referrals [30, 31]. (…) Health professionals and practice staff engagement, involving regular referrals to SP, is a facilitator and crucial for the implementation and delivery of SP services [31]. Strategies that may encourage and maintain engagement of health professionals include feedback letters from navigators to prescribers, regular education events and training sessions, encouraging navigator attendance at surgery staff meetings, having information stalls within practice reception areas, and a brief and easy to complete referral form to reduce the workload for prescribers [31, 33, 34]. (56)

It was recommended that regular feedback about patient outcomes should be provided to GP surgeries to encourage referrals (19) as well as training to ensure that GP practices fully understand the objective of social prescribing schemes and the referring criteria, to help encourage commitment (17,18). (3)

• Regular communication with the GP practice is important, including providing case study examples to show the benefits of the service for older people. • Provide feedback to the referring health professional after the initial assessment and at appropriate times during the older person's contact with Age UK. (151)

As a significant motivational factor towards achieving sustainability, informants felt that getting information on the progress of the referral was 'good practice' and a simple prompt to use the service, a GP stating, 'just trying to keep remembering that you can refer people to it … because there's nothing really to remind you because you're not getting letters or emails back from anybody saying "thanks for the referral"'. At this point, there was a general view that this communication could have been stronger; for example, a GP felt, 'there's been no feedback to the referrers'. (25)

A bidirectional referral process only works if the community partner knows what kind of information would be helpful to the practice, as well as how and to whom to send the information. Be very explicit in communicating to the community partner the importance of data and feedback. Chances are the partners will assume the patient is keeping the clinician up to date, and will want to avoid sending duplicate information. Provided your practice wants to receive regular and timely feedback, you might ask the community partner to provide your practice with regular reports that answer the following questions: • Were you able to make contact with the patient? If contact was made, did the patient enrol in the program, or did the patient decline entry? • If the patient did enrol, did your program collect baseline and ongoing data that you can share as the program progresses (e.g., weight or attendance in class)? • If the patient declined enrolment, can you share their reason? • Can you send the information back to our practice using our preferred format (e.g., electronic fax)? (Note: the practice will need to specify the preferred format; do not assume the partner will know this. Also, specify the best person to receive the reports to ensure they get to the right clinicians.) (17)

The meetings provided a two way opportunity to engage with health care professionals and other staff about service developments, feedback systems and fine tuning the referral process, including patient types and outcome (48)

This can be achieved through receiving regular feedback about how a link worker is helping patients. Positive feedback creates confidence in the link worker. A feedback loop may then be established, increasing HCPs' trust in this individual, so they make more referrals. (140)

GPs also discussed concerns about referring due to limited knowledge and understanding of the pathway and poor feedback on their referrals (all of which could influence the referrers' willingness to continue engaging with the pathway). (141)

- **Supportive:**

"There is the sense, from both patient and CLPs [Link workers] interviews, that much of the work actually involves one-to-one support over a period of time rather than simply linking patients to community resources." (96)

'And it is very comforting to know that you are not by yourself, that you can ring someone' (CHA interview 1, and reiterated in her daily diary) (47)

These factors, whilst being important in the early stages, did not feature so strongly when people talked about sustaining their health and wellbeing, or going further. The themes at these stages were the crucial importance of ongoing support from someone in their social network…possibly friends or family but sometimes from a 'outsider'. (20)

Clients highlighted the personal qualities that they valued "very genuine, very caring", the closeness of the bond that had developed, the understanding and support that had been provided and how enjoyable the contact had been "I've loved her coming", "we just chatted about everyday things and we thoroughly enjoyed each other's company". (12)

In cases where patients had agreed to seek help from a community-based service, volunteers would seek their permission to make an appointment on their behalf. Five of the volunteers indicated that if appointments were not made during the consultation, there would be a strong doubt as to whether patients would make appointments on their own (76)

Social Prescribers felt that they provided a unique service in primary care by effectively removing time bound appointments, with some Social Prescribers spending up to one hour in their first consultation with patients and in a minority of cases also accompanying patients on initial visits to the service they had been referred into, where there is capacity (although some Social Prescribers do this in their own time). The time Social Prescribers had to discuss issues was thought to provide high levels of satisfaction to patients (22)

An empathetic approach was consistently seen as a key component of this relationship. Patients also described feeling they had time to express themselves and allow the CLP to understand their problems and difficulties. Some described benefit from 'emotional support'. (43)

Many scheme providers contact patients directly (by phone or letter) once they received the referral from the GP, which they believed supported and encouraged participation: "… a lot of people aren't keen to maybe go along to the established walks, because you think, 'well, a group of people, [who have] known each other for a while', and so we've been more inclined to go and meet them for a coffee and fill in … the paperwork. Sort of meet them for a coffee, let them know a little bit about it and … you know, we've all gone along with various people just for the first couple of weeks so they kind of get used to it." (Interview ID 17) (105)

The participants appreciated making agreements on this subject during the intake session (for instance, making appointments by telephone, having the activity coordinator wait for them at the door or going to the appointment with another person). Some participants had a follow-up

session with the well-being coach after their first participation in an activity. This was experienced as a stimulus to continue with the activity. The lack of a follow-up session could be a reason to drop out (150)

Underpinning the above was a belief in the importance of networks to facilitate and increase the likelihood of a successful social prescription, with the assumption that the converse would be true: patients who are simply given information about an opportunity will not necessarily take it up without some hand-holding' (Brandling & House, 2009) Thus, 'having someone to encourage or support' (ERS Research & Consultancy, 2013) was considered central to successful referrals (30)

Service users repeatedly reported that the support of and work with the navigators facilitated the feelings of readiness to engage with services they would not have engaged with otherwise: 'And she [the navigator] helped me quite a bit actually. She has been very good actually, I went to the gym this morning. There is no way I would have gone to the gym without her. No way I would have done it!' (Service user 1) The level of support that service users required in order to engage with services was dependent on their individual needs. (…) Service users emphasised that feeling supported from service providers was a key factor determining their adherence to onward referrals. When service users haven't received a response from service providers, they didn't engage with referred services: 'But I haven't actually done anything, but only because no one would get back to me.' (Service user 6) (…) On the other side, service users reported that knowing that a provider is awaiting them and supportive, for example picking them up from reception and welcoming them at the first session, boosted adherence to onward referrals: 'Yes, so I knew someone was waiting for me [. . .] Yes, I would just sit and waited at the table, and she picked me up.' (Service user 1) Ongoing support and motivation, especially during physical activities, were identified as another factor promoting service user adherence to the SP programme. (13)

Many scheme providers contact patients directly (by phone or letter) once they received the referral from the GP, which they believed supported and encouraged participation: "… a lot of people aren't keen to maybe go along to the established walks, because you think, 'well, a group of people, [who have] known each other for a while', and so we've been more inclined to go and meet them for a coffee and fill in … the paperwork. Sort of meet them for a coffee, let them know a little bit about it and … you know, we've all gone along with various people just for the first couple of weeks so they kind of get used to it." (105)

During months 9–36, CHIS received 888 requests (<1% of all participants) for assistance accessing community resources (631 by phone, 193 by text, 64 by email or in person) (Appendix Exhibit 8).6 Between months 31–36 at sites affiliated with one FQHC partner, participants could elect to receive text messages from CHIS. Among those who received a text message from a CHIS in tandem with receipt of the HealtheRx (n=1448), the engagement rate increased to 14% (40)

I hate it if I'm made to go.' (P11, male, 45–49 years) 'I certainly felt better from having spoken to her [Link Worker], and for her inspiring me to … kick me along and say, 'Yes, you can do that,

you can do that.' And when I described the [negative] feelings I had she turned them around to be something else that made me feel loads better.' (P5, female, 65–69 years. (…) The level of support that some service users required in order to engage with services, particularly those involving physical activity, appeared to be considerable. Link workers paced the level of support they offered, particularly in the initial stages: 'I just expected the Link Worker to introduce me to the gym, and that would have been it. And I think, if it had just been [that] I would have turned round, and I would have gone the opposite direction. But because of the way it was so gradually and really professionally linked in to different things, I just felt as though I'd floated into it, rather than getting shoved from behind. I just felt as though I was gradually moved into it.' (P2, female, 70–74 years) (35)

Service users identified the meetings with navigators and the establishment of a supportive and trust relationship as major enablers to behaviour change (32)

Most participants viewed the role of the CLP as engaging patients with a network of community resources and providing continued follow-up and support, rather than simply being a referral point. (50)

By follow-up, link workers' experiences supported the contention that simply signposting to activities (the principle underlying 'light' social prescribing (Kimberlee, 2015)) would be ineffective in engaging clients and much more intensive support was required (44)

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. Sustained engagement with the intervention led to improved self-esteem and increased confidence around attending their referral activities: ...when I first went and I was talking to my link worker and I said to them, "I'm not very comfortable about coming into a gym." He said, "Well shall we talk through what you're not comfortable about?" I said, "Well if I'm going to be going in there, my age, my shape and I'm going to find leotards and skinny minnies in there, I think I'll feel as though I don't fit in at all." He said, "I can assure you that that will not be the case." Do you know, it wasn't? I went there initially not feeling very confident and then, over a very short period of time, I was confident. So it's boosted my confidence as well. I never saw a leotard! (P2, female, age 70–74) (42) (44)

(…) walking leaders described various methods they used to support participants including: providing constant encouragement; a friendly and positive attitude; empathising and engaging with participants, encouraging participants to mix… (Stirrat, 2014) (30)

On the other side, service users reported that knowing that a provider is awaiting them and supportive, for example picking them up from reception and welcoming them at the first session, boosted adherence to onward referrals: 'Yes, so I knew someone was waiting for me [. . .] Yes, I would just sit and waited at the table, and she picked me up.' (Service user 1) Ongoing support and motivation, especially during physical activities, were identified as another factor promoting service user adherence to the SP programme (13)

Participants regularly referred to the importance of having a definite and consistent form of support in order to maintain attendance: "You wouldn't be inclined to do it unless you were getting … encouragement and you had people telling you God you're getting better this week, that's all motivation" (Male Referred Participant). (77)

A key role of the exercise leader was to motivate and encourage, but if participants felt they were not receiving support and supervision they were more likely to drop out. (104)

The expertise of the professionals and the support they offered was clearly an aspect of the interventions that was valued, particularly in helping participants as they became familiar with using exercise equipment and in knowing the extent to which they should exert themselves. (148)

Specific positive comments related to the appropriateness of programmes and supportiveness of staff. (85)

Whilst some valued the role of the exercise professional in preventing overexertion, others highlighted the value of motivational support which enabled them to push themselves harder than they would have by themselves: [Female aged 69, centre 3, 8 weeks] Well – when I first came, as I said, I wasn't walking very far – we were supposed to be walking around the hall, which wasn't walking very fast or very far, so [exercise professional] grabbed hold of my arm and said "come on, come for a walk with me" and he was walking around the hall with me – that's the sort of support you get [y]. They always check to see that you're all right, that you are not going to overdo it and cause yourself an injury or whatever, they are always checking on that. (…) Amongst patients in the early stages of the programme, some expressed concerns regarding whether they would be able to maintain increases without ongoing support from the professional, in terms of continued guidance on how to exercise safely or continued motivational support: [Female aged 24, centre 5, second class] I need her quite a bit around. But maybe as I get through, I'll get used to it. And not really needing her as much. I don't know, it's just that – being able to say well "do you think I could do this, or do that" whereas when that finishes, you know, you won't have anyone just to have there. (111)

Satisfaction with schemes was largely attributed to the professional, supportive, encouraging, and friendly service provided by the staff.31,35 (93)

They gave you so much encouragement along the way. They are a fantastic team (Participant I, female, age 60) (101)

The peer and social support they received during classes separate from the regular general gym users gave them the feeling of being among like-minded people who were more or less in a similar situation, which in turn gave them confidence and empowered them to modify their behaviour (107)

Amongst patients nearing the end of the programme perceived challenges commonly included loss of social support from other patients. Having other people to exercise with was described

as reassuring to patients who felt that exercising alone was unsafe or that they would want another person there if they were to hurt themselves. Many described having others to exercise with as essential if they were to maintain motivation: [Female aged 58, Centre 4, 8 weeks] I think the motivation, for me, coming to a class is fine, and I can do that [y] if I had to get up and do it myself I wouldn't bother, I know I wouldn't because I tried it before (111)

The social support inherent in the design of the NLNY programme, with all new together (participant G, female, age 57) like-minded participant groups, helped people to overcome their embarrassments. A friendly ethos, which was actively promoted by the trainers, encouraged engagement in the programme. Once people were involved in the programme, social comparison became an important feature, and seeing what other people of similar age and with similar issues had achieved was cited as highly motivating. Also, social obligation, either to the trainers or to other people in the group, was described as helping to maintain involvement. Similarly, making regular arrangements with others, whom they had met through the programme, helped to sustain PA post programme: 'if somebody says, Will you be here on Wednesday? '… I can't let them down, I will be here on Wednesday (participant I, female, age 60) (113)

The participants reported that as well as the caring and supportive environment provided by the professional workers, they also experienced caring and support from one another: "We've got a lot of caring people around." (Gracie) "I've always been very impressed with the caring attitudes of the artists and the artist assistants whenever people have become distressed. They're more than just artists." (Alfie) "There's people doing better than you and there's people doing worse than you and you're on some kind of continuum, you know, where, you know, and it, but I think when you meet people... who also have had problems, it kind of reminds you that you're not alone and that there's hope because... you're all in it together..." (David) (68)

During the PA programme, social support and social participation were enhanced. Social support refers to support received (eg, informative, emotional or instrumental) or the sources of the support (eg, friends met in the group) that enhance recipients' self-esteem or provide stress-related interpersonal aid.30 The PA programme included the following mechanisms to enhance social support during the cool-down phase of each session (…). The two major findings of this study were that: (1) a PA programme led by physical activity specialists and linked to community resources with enhancement of social support and social participation was effective in sustaining regular PA practice (establishing adherence) in the long term (self-reported PA levels and SOC) and (2) social support was perceived significantly higher in the IG participants in the long term. (29)

They articulated how SP can help combat loneliness/isolation through patients receiving social support from others undergoing the same experiences. […] Social support provision makes patients feel comforted, understood, motivated, less anxious and less isolated, but it can also involve patients sharing information about difficulties they are experiencing. SP providers argued that groups benefitted the whole community, as well as individual patients (141)

A positive group experience was also vital. This was typically facilitated by a sense of belonging and feeling welcomed by the group (and leader). Aside from loneliness alleviation, groups allowed participant 4 to provide support to similar others, which he experienced as an important aspect of group membership (141)

Reciprocal support networks began to develop within the group and sharing enabled many clients to understand that they were not alone in their difficulties, normalising their situation and reaffirming their place in the community: 'I've met so many nice people and I realised … I'm not just the only person out there … at first I thought "Oh, what am I doing here?", you know, "I don't have anything in common with these women." And I think I looked beyond that and I think I've realised how I did fit in, because we all had a story to tell and just slowly made my way back you know, to who I am now.' (Halima) 'There's people doing better than you and there's people doing worse than you and you're on some kind of continuum … but I think when you meet people … who also have had problems, it kind of reminds you that you're not alone and that there's hope because … you're all in it together …' (146)

When discussing the progress of their goals with staff, beneficiaries experienced support as encouraging rather than punitive (contrary to their expectations). Two participants did not feel supported because the pathway staff failed to maintain contact as expected, or interacted in what was perceived as a rushed manner. This in turn made the patients feel their needs were not understood. (141)

For patients who were socially isolated and coping with complex health issues, joining community groups was challenging. Some expressed fear of going outside the home, or anxiety about meeting new people. LW support was vital for becoming more socially connected, specifically being accompanied by the LW to the first group meeting: [The LW] said that both of us could go to [the group] the first time, so that she could help me make sure I was comfortable and that I had what I needed to do the class. She spoke to [the instructor] and introduced me to her. I felt a lot happier knowing I had someone I knew to go with me. [lines omitted] If someone had just told me to go, I don't think I would have gone. (Patient 8) (141)

For some clients, this acted as a stepping stone from isolation to group social interaction, providing the encouragement, confidence, and motivation they needed to engage with SPA: 'I actually got first health referral and I didn't go … ya know when you don't talk to people and that you can't make yourself go anywhere on your own. So anyway this time … [health trainer] met me, took me to [sports centre], took me to the gym, took me to meet the [swimming instructors] and … now they've given me that confidence, he didn't have to take me every day, he only had to take me that once and I'm getting round more and more … like I say I'm meeting people in the street now what go to the social café and "How do! All right!" and tha knows I can spend ten, fifteen minutes chatting to them …' (Robert) . Initial support was typically for practical, social problems, but clients also saw value in sources of support that helped in 'bridging' from one-to-one problem solving into more social activities. Thus, clients might not only be referred to SPA from professional support, but also accompanied by a member of the SPA team to their first sessions. Without support in making this step, many

clients felt they would have been unable to access SPA and later stages of development: 'I would never have got here on my own, but when somebody shows you … I can find my own way there … so they brought me a couple of times and now I come myself.' (David) (146)

- **Transparent:**

However, service commissioners recognised the need for robust evidence if the pilot was to become embedded in mainstream provision in the longer term. "We want something robust to say this has stopped 200 people going into hospital". As such, the pilot was independently evaluated with the express intention of identifying the range of social value created, utilising the principles of the blended value approach, with a focus on the following social and economic benefits: • changes in the use of urgent and emergency hospital resources by patients referred to the pilot • changes in the well-being of patients referred to the services • any wider unintended changes for key stakeholders in the service . Despite commissioner's interest in three broad areas of social value, and although their investment in social prescribing didn't displace funding for core NHS providers, they were quite clear that one measure - the reduction in the use of urgent and emergency hospital resources - would be given primacy in decisions regarding the re-commissioning or mainstreaming of the service. (21)

Shared understanding among clinical and non-clinical staff of what can be expected by each partner, the scope of the SP service, which patients to refer, how patients can be helped, and the capacity and skills offered by a navigator facilitates the implementation and delivery of SP services [31]. (…) The lack of shared understanding of a SP service and pathway among stakeholders, including prescribers, navigators, service users, and service providers, was identified as a barrier to the implementation and delivery of SP services [29, 31, 33]. Lack of shared understanding may result in the lack of mutual trust between partners and prevent effective partnership working, a key element of SP [31]. Furthermore, limited understanding of the SP pathway among prescribers may result in uncertainty on how to explain SP to patients, which in turn may hinder referrals to SP services [29, 32] (56)

Aims and objectives were likely to be shared when they reflected a clear patient need and both sides had input into the design, with a clear understanding of roles. (52)

Just as the presence of an existing good relationship between the Programme Coordinator and the community groups had facilitated the process of community recruitment; it also facilitated the formation of strong partnerships and on-going communication as the programme was developed: "it was just easy…because…there was a good relationship there to start" (Community Leader no. 3). Community leaders also relayed how having a shared objective of health improvement facilitated the formation of a strong partnership with the Health Promotion Department: "we're all one big team trying to achieve the same thing" (Community Leader no. 1). (77)

Due to the low referral rates from some GP practices, link workers had to take an active role in recruiting clients […] 'I didn't anticipate there being a slow start in terms of GPs referring and

that's been difficult because it meant that marketing, promotion, selling, that has become quite a big part of the role … it's frustrating … it's like the quality of the work with the clients is running parallel and sometimes is side-lined by this panic of getting referrals'. (44)

- **Convenient:**

All seven Intervention Practices developed bespoke methods for referring patients to the CLP. Some used the EMIS practice patient record system, others handwritten notes, one used on-the-spot referrals (whereby the GP introduces and refers the patient to the CLP personally), others adapted existing practice templates. Some combined these methods. The main point is that the referral systems were developed over time by practice staff themselves, and thus were able to fit into practice routines. Because of particular practice interests, one practice specifically targeted housebound patients and another targeted younger women (96)

Barriers to engaging GPs and healthcare staff in social prescribing services include: a lack of communication between social prescribing service and the GPs and other healthcare staff; issues with the referral process; worries about liability; and increased workload (…) When GPs are having to complete a referral form (particularly a paper copy that may need downloading and posting) this can be time-consuming (cs10). Some larger services avoid this issue by having link workers, but this could present challenges for smaller and less well-resourced services. (59)

Workload and competing demands and the extra time needed to make the referral were also considered barriers to referral (148)

A brief and easy to complete referral form to reduce the workload for prescribers [31, 33, 34]. (56)

The need for the referral system to integrate with existing systems was identified and the process should be simple3, 9, 10. (119)

The evaluation authors reported that referral systems should be brief, easy to complete and fit in with the other referral systems already in use in the GP practice. (119)

The referral system was generally regarded as effective, and the consultation at the outset with the health care professionals was an important factor in this. "I think what helped massively was that it actually made the referral easy. Before, we didn't actually know how to do it. I remember before, I had to find the telephone numbers for Age UK, I didn't know who to speak to. Now it's fantastic, there is actually one form with all the available services, and you literally select and tick the right one and it's very simple and straightforward" (130)

Key issues identified for successful implementation of social prescribing programmes were central coordination of referrals,26 resources and training to support coordinators and enabling networking with the voluntary and community sector,26 29 and good communication between GPs, participants and link workers (5)

Strategies that may encourage and maintain engagement of health professionals include feedback letters from navigators to prescribers, regular education events and training sessions, encouraging navigator attendance at surgery staff meetings, having information stalls within practice reception areas, and a brief and easy to complete referral form to reduce the workload for prescribers [31, 33, 34]. (56)

• Referral forms should be brief and easy to complete. • The referral mechanism should fit with other referral systems in the practice i.e. phone, fax or posta (151)

Health professionals questioned the necessity of some of the referral requirements such as collecting patient health data for the referral form and getting patients to sign a contract of commitment, along with other administrative duties: "there was too much (paperwork)…one sheet would have been fine" (Health Professional no. 3). (…) Health professionals made a number of suggestions they believed would make the programme more successful from their perspective. Firstly they requested a simplified referral pathway with less administration and easier contact with the support worker. (77)

Likewise, incorporating processes (e.g. referrals) into existing systems within a surgery (e.g. linking it to current IT platforms) will encourage HCPs to see the service as easy to use. (140)

9. References and data extracts for CMO3.

CMOC3. Organisational contingencies (C), including continuity of care, resource adequacy, training opportunities, information governance, a predisposed practice culture and leadership and accessibility (M), make holistic, relational and redistribute SP more likely (O).

- **Predisposed practice culture and leadership:**

It was recognised that there was already a level of existing congruence within the primary care teams with the social ethos of SP and it was this commonality across partners that fostered interdisciplinary non-hierarchical working and early implementation. Such work led to partners feeling that they had a good understanding of the possible impacts and outcomes of SP at an early stage, for example, a GP stating, 'we all had a good idea of the aims and purpose'. (25)

"I think the biggest thing that's been so successful is that we've got our lead GP for [name of area] who's very much on board with it all and he actually chairs the exercise referral group that meets quarterly. He also is just very aware of what we're trying to do and very on the ball with the whole kind of physical activity element of that 'instead of trying to prescribe medication to people; let's give this physical activity a go' kind of thing. And because of that, he then sees that he's [the lead GP] the sort of feedback mechanism to get all the GPs on board and other health professionals. So I would say that he is one of the main kind of drivers in making all this come together." (Interview ID 14) (105)

G*P- VCS collaborations were said to require effective leadership; individuals to champion the relationship and drive the collaboration. General practitioners were thought to be key leaders in collaborations because of their professional and social standing. Other potential leaders were GP practice managers, VCS organisation managers, senior clinicians and commissioners in positions to be gatekeepers and facilitate a hospitable environment.* (52)

Accessible and authentic collaborative leadership. A willingness of senior leaders to actively engage in "courageous wellbeing conversations" and to step outside of perceived, conventional wisdom was a critical success factor enabling the CWP model to get off the ground (45)

The support of the practice manager is vital in facilitating meetings with GPs and other practice team members and in agreeing referral systems. (…) Practice managers can ensure that the Social Prescribing service is promoted through the practice newsletter, practice website, information in the surgery waiting room and inclusion in computer generated practice templates or patient pathways (151)

Acceptance may be engendered through the endorsement of such provision by credible sources. For example, HCPs may hear about a service in glowing terms from respected colleagues or those in a leadership role. 'Buy-in' may be exhibited in a practice setting by senior staff making space for a link worker (e.g. providing them with a room to see patients, giving them access to tea/coffee making facilities). (140)

- **Training opportunities and supervision:**

For link workers to continue acting as a credible source of assistance for patients, they should receive appropriate training (e.g. in active listening, being non-judgmental, motivational techniques). (140)

The importance of comprehensive training, readily available at appropriate timelines (143)

Strategies that may encourage and maintain engagement of health professionals include feedback letters from navigators to prescribers, regular education events and training sessions, encouraging navigator attendance at surgery staff meetings, having information stalls within practice reception areas, and a brief and easy to complete referral form to reduce the workload for prescribers [31, 33, 34]. (…) Training for referrers on how to explain SP to patients, i.e. words and examples they can use, is likely to encourage referrals to SP services [32]. (56)

Although some professionals considered that the training conducted prior intervention was appropriate and provided new concepts, they maintained that it was insufficient for the actual implementation of the intervention, specifically concerning the motivational interview and the approach to risk of depression. There was no practical training in the use of online case report forms (CRF), and in one of the centres, the training was provided too early. Some theoretical aspects could not be translated into practice due to lack of time or skills (36)

We offered brief interventions training to health professionals to help them to respond more effectively to patients' social needs. The training provided insights into the Five Ways to Wellbeing (Aked et al., 2008), motivational interviewing and the BATHE technique (Stuart and Lieberman, 2008). Feedback from staff about this training showed that they found it useful in their consultations with patients (45)

'(…) it was suggested that link workers should be provided with appropriate non-clinical training (…) and the opportunity (…) to meet up to exchange good practice and knowledge'. (3)

Some link workers reported that training had increased their confidence in performing the role and their knowledge of areas such as confidentiality and safeguarding. They particularly welcomed the opportunity to study for a formal qualification. However, for others, early experiences of the role indicated that the generic health trainer training had inadequately equipped them with the practical skills and knowledge required to fully implement what was a highly complex role. This was confirmed at follow-up. A number of participants described their initial training as overly theoretical and lacking the more practical elements that may have better prepared them for the range and severity of the issues their clients faced: The training that I did, I thought it was very 'picturesque': "Let's talk about the traditional female who sits at home and bakes. She would like to go to the gym or join a walking group to have a couple more friends. Her health's good but it's not great." You're not talking about 'Sally' who lives in a flat where the roof's caving in, she's got no money and she's got loads of family. You're not

actually talking about real poverty, which is what we deal with on a daily basis. (P3, FG4, Phase 2) (44)

By follow-up, link workers had identified a number of further training needs, including an increased focus on the wider determinants of health (e.g. giving advice on benefits and housing), further training on behaviour change tools such as motivational interviewing and in-depth training on mental health issues and LTCs. Community development training to improve knowledge of the availability of community resources and how to access them was identified as particularly important (44)

Once recruited, the WBCs received an ongoing package of training including: emergency first aid, lone worker training, falls prevention training, motivational interviewing, winter warm/energy training, living well dying well training, adult safeguarding training and dementia friends training. (47)

Key issues identified for successful implementation of social prescribing programmes were central coordination of referrals, resources and training to support coordinators and enabling networking with the voluntary and community sector (…) (5)

All Co-ordinators are non-health care staff (although some previously worked in the health service) and all received training in goal setting, use of tools and outcome measures, and in how to engage with users in a strengths-based way, co-produce a plan and manage risk. (24)

All of the Social Prescribers are required to undertake the following training as part of their contract: • Motivational Interviewing • Making Every Contact Count (MECC)xx • Information Governance • Basic Life Support • Safeguarding. (22)

CWS staff induction training, together with work to embed the service in GP practices (…) ensured that programme objectives were understood by key stakeholders. (41)

In keeping with primary care informants, this group also highlighted the significance of maintaining a steady supply of quality-assured services through the training of skilled volunteers as a key element of sustainability. (25)

'Reliability' in this context took multiple forms, but the concerns related to whether patients believed the group had adequate facilities to manage complex clients (in terms of experience and practical environment for dealing with particular symptoms and characteristics of conditions), as well as whether staff were sufficiently trained. (…) Positive experiences of and relationships with activity leaders were thought to be associated with Adherence: …[things] that would make them return to the gym included suitable qualified staff (…) (30)

In general, prescribers expressed a higher degree of trust in organisations that were either provided or endorsed by the statutory sector: You know if it's something that's run by education or the Health Board ... that it will be a certain level, but voluntary agencies I don't know, I can't tell that. [Health visitor 5] This perception seems to be based on an underlying

assumption that services provided by the statutory sector are delivered with a certain level of competence, whereas questions were raised about the advice being given by third sector organisations. Linked to these concerns were doubts about their training and monitoring. However, there seemed to be a degree of confusion about third sector organisations. No differentiation was made between groups run by unpaid volunteers and those who employed and trained their workers. (26)

Social prescribers without managerial or supervisory responsibilities seemed reasonably protected from the stresses of work spilling over into their personal lives. Some did feel the impact however, with one social prescriber in a statutory organisation reporting that sometimes he would worry about clients outside of work time, particularly if they had expressed suicidal thoughts. Nevertheless, issues were often discussed with colleagues or in supervision, and this seemed to be enough of an outlet in most cases. Again, it appeared to be the managerial, community-based social prescribers who shouldered most of the emotional burden here, particularly where there was a lack of peer support within an organisation. Here another respondent recounts a time when she struggled to deal with information a client had given her. (139)

Where staff were working more in isolation to others or where they were operating at a more senior level, the lack of a team on which to offload or discuss cases was a problem. The same respondent - a managerial social prescriber who offers some psychological support to clients in addition to helping them with their social needs - spoke of another recent incident that had affected her more deeply than she had anticipated: "Interviewer: So you've got nowhere to particularly go with that [the incident]? I have, I've got supervision, but that's not daily, it's monthly. Interviewer: Yeah, a month is a long time to wait. Yeah. So it's about if I had someone working with me we could debrief each other, whereas I don't have anybody really in the office - everybody's doing very different things. […] And it wouldn't be appropriate for me to offload in the office, that's the other thing." (Managerial Social Prescriber, Community-based Service, SP Holistic -2) (139)

However, not everyone had got used to working in a silo, and staff working in larger organisations with a clearer hierarchical structure expressed a strong appreciation for the support of the wider team. As mentioned previously, this included sharing caseloads but other respondents praised the efforts of supervisors in making them feel able to perform their role effectively: 'It's good to be part of a team, and I'm part of a really good team […]. [My supervisor] is a really good team leader, he's very enthusiastic and although the job itself has preassures, he's careful not to increase that preassure' (Social Prescriber, Statutory Service, SP Medium – 4b). (139)

An environment offering supervision or peer support allows anxieties or difficulties associated with the role to be shared and explored. Problems arise when the link worker's capacity and capabilities are overextended, especially if HCPs refer complex cases because (a) they believe the link worker can cope and (b) there is a lack of immediately accessible alternatives (due to long waiting lists for statutory services). (140)

Whilst Link Workers were often passionate about their work, all agreed on the need to be supported in this frontline role where complex and unexpected issues could present themselves without warning […]. 'I cried about it, I cried about it .. . I was really down about the whole day, proper down' (LW5, Scheme 1). Peer support was appreciated as the work could leave Link Workers feeling isolated and they enjoyed being part of a team; however, the most important form of support was that of clinical supervision and the safe space it provides to offload and discuss difficult patients and challenging situations. Those who had access to this kind of support were vocal in their appreciation of it. (144)

- **Information governance:**

Survey respondents suggested that a directory of services be developed and made accessible to all. This would allow clinicians to be constantly updated with what services the social prescribing team are referring into. (…) They felt it could also be used as a resource (…) to explain to patients what the social prescribing service can offer (…) (22)

The need for a clear referral pathway with documentation that supported assessment of eligibility was also noted by one of the arts programme evaluations. (119)

Maximising the potential of centralised databases (…) are important to ensure that a robust and up to date directory of community activities, accessible to health professionals and patients, reflects the knowledge that SPCs develop in their role. (49)

Referrals of patients to community activities was seen as challenging because databases about community organisations were out of date (58)

Another issue related to workload of those running the social prescribing services is that there can also be capacity issues around maintaining up-to-date information on relevant service providers and their surplus capacity (Kimberlee, 2013). (59)

Survey respondents suggested that a directory of services be developed and made accessible to all. This would allow clinicians to be constantly updated with what services the social prescribing team are referring into. (…) They felt it could also be used as a resource for referrers to explain to patients what the social prescribing service can offer, which could help facilitate new referrals and improve their quality. (22)

Addressing data sharing and information governance issues, in order to enable identification of potential referrals via MDT meetings. (41)

But there are also capacity issues around maintaining up-to-date information on sources of voluntary and community support. In the city the SP signposting projects are continually being

updated and at the holistic end of the SP spectrum it relies on a continued commitment from Health Workers to ensure they are aware of what is happening locally. (90)

Having shared systems and governance was thought to benefit GP- VCS collaborations, helping to make work more consistent. Three key areas of sharing were: (1) IT integration, (2) referral pathways and (3) a single point of contact. (52)

The IT-based referral process was seen as particularly efficient. (…) So in this case, the system variously allowed primary care staff immediate desktop access to the potential 'secondary' signposting routes; close communication and the effective transfer of patient data between primary care staff and the SPOC link worker; immediately usable information for the SPOC link worker to interact with the patient; and the potential to broadly monitor data and referrals. In terms of uptake and maintained use, this was a preferred option for GPs as the system was already central to their existing clinical work and offered high levels of confidentiality and data protection; a GP stating, 'SCI referral is very helpful because then it's just like any other referral'. (25)

- **Continuity of care**

'If, I mean, even if possibly another doctor would have recommended it, the thing is I know [name of GP]. We know each other for so long, I trust him. And I trust him that he knows me well enough, so I said "yeah okay."' (Service user 3) (13)

Healthcare attendees explained that they participated because (…) they felt commitment to their regular health professionals (36)

Health professionals relayed how previous referrals had returned to them with positive feedback about the programme, having also gained health benefits. Witnessing these benefits provided health professionals with a sense of personal satisfaction. (77)

Finally, GP- VCS collaborations appeared to suffer because of an actual and/or perceived lack of continuity, both across the VCS sector as a whole and within individual GPs and VCS organisations. (…) High staff turnover within both GPs and VCs organisations inhibited the development of trusting relationships. (52)

Some participants expressed negative views primarily due to personnel changes among link workers that resulted in lost continuity. These accounts highlighted the importance of the link worker/service user relationship and how changes to this highly-valued and often therapeutic relationship could be upsetting and lead to disengagement (147)

Although another CLP suggested that it takes time to develop relationships because of people's complex problems which did not reduce attendance but is worthwhile: 'it took time, you know, to build up that relationship with the individual, but you can see just the difference it's made, you know, he knows I'm there and you know I guess it's like chiselling away, each time that I see him, you know, he'll tell me something else' CLP 8 (96)

Building up knowledge of the range of support available on a local and borough basis takes time and is vital to an effective social prescribing service. It is supported by the fact that Social Prescribers are aligned to GP Networks, with specific catchment areas, and their on-going liaison work with individual services, as well regular Social Prescribing Forums and networking Breakfast Events, which allow Social Prescribers and VCS organisations to learn collectively about, and keep up to date with, each other's work. (22)

VCS representatives who were interviewed as part of the evaluation suggested that some Social Prescribers were not yet fully aware of the extent of the range of services available in the borough, with patients being referred to services which were not always in close proximity to their home. This was reaffirmed by Network Managers who believed that some of the Social Prescribers had to 'build their knowledge base on local services and create their own links and networks', which takes time. (22)

- **Resource adequacy**

GP-VCS collaborations 'do not come for free' (8, VCS staff) but required specific resources to develop and progress. Resources included time (i.e. for assessing patients, holding meetings, setting up projects), space (i.e. for meetings, for co-located practitioners) and finance (i.e. for recruiting enough personnel, locum cover). Allocating a specific time for GP and VCS organisation staff to meet, although difficult, was akin to 'building in permission to do collaboration' (8, VCS) (52)

Further implementation of Links-like activities was hindered by lack of time in the face of high demand: 'I think one of the issues for us at the moment is just the volume of business. That it's very difficult in the stuff that, you know, where you're just trying to basically get people into a slot, as it were. It's quite difficult to sometimes take that time to actually have that conversation that says, "well actually, what you should do is go and, you know, and speak to this organisation whom I think would be helpful, and fine so." (96)

'[…] I had to cut standards as lack of locum cover put too much strain on the system, e.g. sometimes I do less social prescribing due to pressure on appointments and lack of time for each patient' (96)

'It's not that we don't do it because we are against it, it's just that there is so much else compacted into our seven and a half or 10 minute consultation that we neglect that one because it slips our mind, it's not top of the agenda (Female GP #3)' (106)

Many health professionals cited pressures on their time as reasons for not engaging in physical activity promotion. Competing incentivisation from other services such as smoking cessation was cited as playing a role in prioritisation of such services: 'In ten minutes' consultation, you have to go through whatever they (patients) came up with, medication review and something else and then you haven't much time for this (PA promotion) … we have to ask for smoking because it is in QOF points but not drinking or exercise … (S8-GP2) (107)

In the NHS nationally, and within the CCG, there is support for social prescribing approaches. Yet this has to be set against a background of many competing pressures on individuals working in primary care. It appears to be a barrier to GPs' reflecting on alternative prescribing options such as social prescribing. (80)

Barriers to engaging GPs and healthcare staff in social prescribing services include (…) increased workload (59)

Workload and competing demands and the extra time needed to make the referral were also considered barriers to referral (39)

When probed on the poor promotion of the scheme amongst other health professionals the HPs felt that a lack of time (particularly for GPs) and a lack of awareness of the scheme were the main reasons, particularly in terms of referral. "I think time is an issue, but we are very active at this surgery but I think in some areas they just don't know about it" (HP, 2) (98)

(…) lack of time within busy consultations (…) was identified as barriers to making referrals to SP programmes [28, 29, 31, 33]. (56)

The primary challenges affecting patient referral were time constraints and competing demands during patient consultations: "we are so busy dealing with acute stuff… [we have a] very short time for consultation [it's a] busy time… that's the main problem" (Health professional no. 2). GPs also referred to other external barriers to referral. For example GPs stated that increased patient presentations coupled with decreasing resources and person-hours, meant they had less time and resources available to dedicate to patient referral (77)

In this study's first phase, link workers identified three barriers to referral: first, high primary-care workloads leaving little time for referral; second, uncertainty over whom to refer; and third, frustration with the WtW referral criteria precluding referral of patients who practitioners felt could benefit from social prescribing but were ineligible (e.g. those outside the 40–74 age range) (44)

It was thought by most stakeholders that the volume of referrals into the scheme was possibly too high for the existing capacity of the Social Prescribers. (…) 'there is huge demand for the SP services and workload is quite high as we deal with very complex cases that need a lot of follow up with services and clients. Time is spent case managing with no protected time to engage with the services that are referred into.' Social Prescribe (22)

Patients were usually seen within four weeks (Grayer et al., 2008). Non-engagement rates were higher amongst patients who waited longer for an assessment (The Care Forum, 2012). (18)

(…) staffing levels will need to be considered carefully to ensure these are sufficient to cover the range of activities involved in service delivery, data monitoring, reporting, evaluation and communication with stakeholders. (41)

Key issues identified for successful implementation of social prescribing programmes were central coordination of referrals,26 resources and training to support coordinators and enabling networking with the voluntary and community sector, and good communication between GPs, participants and link workers (5)

'I'm seeing more and more of the time, the resources demand, the stretch on organisations in terms of the amount of people that seem to be getting referred to these organisations now. And I think potentially the quality of service (…) organisations could suffer.' (CLP6) (50)

One issue with this approach was that organisations would tend to deal with immediate crisis cases and therefore not have resources to support those who required more long-term engagement. Community organisation representatives acknowledged that this 'fire-fighting' approach was not best suited to support individuals with enduring and complex health and social challenges. (50)

These deficiencies were frequently highlighted by link workers in both phases of this study, who identified that "a massive barrier is other services' capacities" (P1, Interview, Phase 1). (…) Link workers expressed concerns about services becoming oversubscribed. (44)

Dissatisfaction related to inconvenient operating hours for working people, staff, congested facilities, intimidating gym environment or equipment, narrow range of activities, and limited social interaction. (93)

Without a range of options to offer to service users, the social prescribing service may not be able to address the needs of all individuals (11).

We estimated potential strain on highly referred resources by the average number of participants referred/ month/resource (40)

A wide range of good quality third sector based services and activities, that are easily accessible with pubic transport, facilitate the implementation and delivery of SP services [31, 32]. (…) There is a risk that available services and activities in the third sector may be cut below the level of service users' needs, which could hinder the delivery of SP services. Navigators have reported difficulties to refer service users to appropriate services and activities because of reductions in scope and long waiting lists [31, 32]. (56)

There are many excellent examples of voluntary and statutory sector services but SP referrals are made without any funding attached which can sometimes cause a conflict for overstretched community and voluntary services. (48)

PLANS is likely to work better in areas where the existing provision of suitable resources and community groups is well developed. It also cannot be taken for granted that existing groups will always welcome added exposure or new members. (23)

Patients with a primary need for counselling significantly challenged the PSS. There seemed to be a general shortage of community-based agencies to refer patients on to (…). Concern was expressed about the waiting time for counselling services, especially when the patient's needs were perceived to be urgent. (76)

Feedback received from the interviews and focus groups with key stakeholders involved in delivering the programme suggested that capacity amongst the VCS was insufficient to cope with rising demand. (22)

Generally speaking caseloads appeared manageable, although there was some anxiety around whether individuals could take on many more clients if referrals increased. The lowest number of active cases reported was approximately 15 people, whilst one respondent had an active caseload of nearer 30. Although all interviewees considered these numbers to be manageable, there was an awareness that some may be working at or near full capacity. Furthermore, waiting lists in services weren't uncommon. (139)

Not having to wait to see a link worker is also crucial, to prevent a patient losing momentum in seeking assistance. (140)

The service is at risk of dilution if the workload is too great; this could prevent link workers from thinking creatively about how best to support individuals and from establishing connections within the VCS (140)

- **Accessibility**

Following this bridging, however, participants found it valuable to know that support was still there, in the background, for when it was needed: 'You just pass your problem on to someone if you've got one … I know I can go up to ring [social café coordinator] any time I've got a letter or anything I need sorting out and [social café coordinator] will invite me in to sort it like.' (Karen) (146)

Participants appreciate knowing that support is always 'there, in the background, for when it is needed'

[Link Worker] says, 'I'm there, basically, any time,' obviously within working hours, but she says, 'Just phone me up if you need me, and any questions or anything.' So basically I can see her as often as I want or as little as I want, but she likes me to keep her informed of anything happening, so she knows.' (P11, male, 45–49 years). (35)

Unlike counsellors, where there is often a limit to how many times a patient can see them, this patient felt that the CLP was there if support was needed again. (…) There was something

about the un-conditionality and continuity of support from CLPs that was valued by patients.(96)

"But after the sessions I wouldn't like to think that it is finished full stop, and that you're in the filing cabinet. I would like to think that you could go at least twice a year ... as you would to a doctor for a check-up. To go back to 'Sarah' just to see whether you had lapsed in anything, if you have forgotten anything, or if there is anything new on the market so to speak." (Male, 67 years) (112)

Some respondents suggested that the flexibility of the service had been a strength, enabling individuals to have control over when and how they accessed the Wellbeing Coordinators and/or activities in the community: "I decided that I wanted it every fortnight, to three weeks maybe, just to make it last a bit longer. Cos she was helping. And then sometimes when I just wasn't feeling it I'd cancel it and meet up the next week." (Male client: interview 13, aged under 50 years. Self-referred to the social prescribing service) (11)

- *Cost:*

'Well, I was enthusiastic about this, because I anyway wanted to start exercising. But a fitness centre will cost you around 45, 55, 65 euros, and I can't pay that. I'll be honest, we have a low income. I don't have a job, my husband doesn't have a job and because of that you have to get by with little things. So for me, this intervention was a way to do this. (129)

"…it was subsidised a bit that helped really and we thought that was it and then you have to pay the full gym fee and we got a bit put off by that" (…) "Yes for those who have money, it might be enough to get them started, but for those who can't afford it, they will think well I can't afford to go to it long term. So they stop going and then they go back to their old behaviours" (HP, 1) (98)

Of the five responses 1, from a Navigator client was negative because he felt that he needed financial support to do the signposted activities and without this could not use the service's support. (80)

Although the ERS was affordable for many participants, they considered the costs of regular sport facilities to be too high and as a barrier to continuing to exercise after the ERS. For half of them, it was actually a reason to stop exercising. 'Well, I was enthusiastic about this, because I anyway wanted to start exercising. But a fitness centre will cost you around 45, 55, 65 euros, and I can't pay that. I'll be honest, we have a low income. I don't have a job, my husband doesn't have a job and because of that you have to get by with little things. So for me, this intervention was a way to do this. (129)

The free nature of the SP programme seemed to promote service user uptake: 'I thought: "It is free, I try it."' (Service user 4) However, a GP reported that some primary care patients refused to participate in the SP programme because of its short-term nature, meaning that only a limited number of free sessions were offered: 'Patients asked: "How long can I go to the gym

for free?" And I said: "Probably as long as you are on the programme, but the number of free sessions is limited, it's about a couple of weeks." Then they are not interested anymore, they ask: "What is the point then if it's not free anymore?'" (GP 2) (13)

As participants were mostly living in socioeconomically deprived circumstances, cost of gym access, which was provided as part of the intervention, was an incentive to stay involved and was also cited as an obligation to make the most of the opportunity. After the free access finished, the cost of continuing to access the gym was a major issue for some and was perceived as a barrier to maintaining PA. The issue of cost was especially problematic for those who were not working outside the home. (113)

In terms of referrals and access to activities, one author suggested that activities needed to be local and affordable in order for patients to access them (3)

- *Distance:*

The second theme centred on a participant's physical proximity to the offered social prescribing activity, or if it was sufficiently close to be perceived as accessible, which would differ depending on car ownership status, or rural or urban location. (30)

Certain aspects presented physical barriers to engagement with activities including lengthy and costly travel, unsuitable scheduling (for example, after dark or during working hours) and/or a location in an area considered unsafe (147)

The availability of public transport in the Rugby area may be very different to other large metropolitan and urban areas where pilots have taken place. The cost of transport is another key factor that has been noted and meant that some clients are unable to take part in activities they have been signposted to. (80)

Issues that may impact the willingness of patients to participate in socially prescribed activities included (…) literacy or travel issues (5).

One of the major barriers to accessing local resources was mobility or lack thereof. Most participants did not have their own transport and so relied on public transport or family members if available. All of the participants lamented the expense of public transport and bus services unsuitable for people with restricted mobility. For many, this was a fundamental barrier to being actively involved in things they enjoyed. (23)

Adherence was lower for those without access to private transport in both the ERS and walking groups. (…) The limited number of centres where the scheme was offered was potentially a barrier to participation, particularly if this meant that participation was dependent on access to a car. (148)

Rural location or geographical isolation of practices from the main urban centres and the absence of the facilities offering the scheme in the vicinity of practices were cited as major

barriers to referral. Health professionals cited concerns that patients would be either unable or unwilling to travel to neighbouring towns to avail the facilities. This view was noted predominantly among clinicians of practices in socio-economically deprived areas: … The scheme has not been utilised or requested at all because it is not available at the local pool and people have to travel to another town … (S4-PN2) (107)

(…) in LHB areas where the scheme was offered in a limited number of centres, or where large distances between centres were cited, many stated that accessing the programme involved substantial travelling time, contingent upon access to a car. (111)

A wide range of good quality third sector based services and activities, that are easily accessible with pubic transport, facilitate the implementation and delivery of SP services [31, 32]. (56)

(…) for many participants, the distance to the sport facility is an important factor. They prefer a facility in the neighbourhood so they can walk there. The Turkish and Moroccan women in particular said they were not familiar with public transportation and preferred to walk to the facility. Also, although some people who own a car do not feel put off by having to travel some distance, others are motivated by a facility in their own neighbourhood, irrespective of having a car. (129)

'I don't go to the exercise classes because I have no transport; I don't drive. I only drive in Tonga, but when I came here to New Zealand, I'm too scared to drive. I don't have a car. So I only go if I ring my brothers, and they are free to come and take me.' (P11) (127)

- *Time:*

Practicality was echoed in the third theme, the time of day that an activity was offered. Activities were offered on weekdays, morning or afternoon, evenings or weekends, with timings designed to attract different cohorts. There were unintended consequences of these timings, with some reporting negative feelings related to, for example, 'seasonal changes in lighting' (Stirrat, 2014). (30)

[Female aged 53, centre 4, 2 weeks] I need different times, you know, that's what I do need. And to just do one class, it's just not enough. (111)

For people who were employed, early morning and evening gym access was appreciated, whereas others appreciated classes at quiet times of the day, when the facilities were less busy. (113)

Negative comments (…) related to (…) inconvenient session times (85)

Participants who adhered for most of the sessions also reported that time constraints due to scheduling (i.e. 'off-peak' times employed by the leisure centre) of the sessions were a problem due to work commitments and child care. (87)

there were many references to how the timing of the programme directly affected participant attendance, e.g. programmes that took place during the day meant that potential participants who worked during the day could not attend: "I would have liked to have joined [the community walk]…but the times did not suit" (Female referred participant, dropped out week 4). (77)

Also lacking were flexible services that could be accessed on a drop-in basis according to clients' fluctuating health status and services tailored to the specific needs of Black and Minority Ethnic clients. (44)

However, certain aspects presented physical barriers to engagement with activities including lengthy and costly travel, unsuitable scheduling (for example, after dark or during working hours) and/or a location in an area considered unsafe. (42)

Dissatisfaction related to inconvenient operating hours for working people (…). Reasons for non-adherence included (…) inconvenient opening hours (…) (93)

- *Cultural and social appropriateness:*

Although most participants saw a good fit between the services offered and their needs, one commented that they seemed to be more geared towards the older generation (80+) and that it would be helpful to have a few more things for younger people "I'm only a youngster at 72 and quite active".(12)

'An activity that fits your wishes and abilities and who you are' (…) People around the age of 55 found it particularly difficult to find an activity with people their own age that took place during the day on a weekday, because most daytime activities are geared towards older, retired people. (150)

Examples of gaps reported by Social Prescribers during the first 8 months of the roll-out include (…) localised support for older Bengali women. (22)

Specific gaps in onward referral services included a lack of affordable and accessible groups and services for adults in their 40s and early 50s, (…) Also lacking were (…) services tailored to the specific needs of Black and Minority Ethnic clients. (44)

Some younger participants identified age as a barrier, with many activities being aimed at older people. Black and Minority Ethnic participants identified further obstacles to taking up referrals, including language barriers, a lack of women-only exercise sessions and cultural appropriateness. One such participant reported that the healthy eating advice offered was unsuitable due to the difficulties of adapting her family's diet to Westernised norms of 'healthy eating' recommended for people with type 2 diabetes: The recipes she gave us were the type of

food we wouldn't have eaten anyway. We've realised we can't change our food. We can't. I've tried. I will lose weight if I eat meals like an English person eats. They have a plate and have boiled veg, potatoes and a protein…we can't eat food like how you have boiled potatoes, veg and protein. I've tried that, but then my husband won't eat that…I will lose weight if I eat the English food, but then when I want to eat the other food (147)

There was an expectation that the CIC providers would understand and accept the social and cultural issues that were pertinent to this participant group, because the delivery staff themselves were from the Muslim community as described by one woman: 'Because she's [trainer] Asian as well, she knows how to change basically, she knows the things that Asians… whereas English people have different diet to what Asians do, our diet is totally different, whereas she helped us a lot by telling us small changes that we could make in our daily intake of food and the like type of cooking that we could do.' (116)

Some of them even refused to participate in fitness lessons when the instructor was male or when there were male participants. Some ethnic Dutch women also said they preferred female groups to mixed ones 'just because it feels better'. Some mentioned being ashamed of their weight or physical condition as important factors. For both groups of women, being in a mixed group would mean they would feel uncomfortable about their clothing in front of men, including a male instructor. 'Normally I wear a headscarf. If there were men present I'd have to wear a headscarf, now I don't have to. You don't have to wear a headscarf and you're among women and because of this you feel comfortable. (Turkish woman, age 22, respondent no. 27)'(129)

- *Diversity:*

Examples of gaps reported by Social Prescribers during the first 8 months of the roll-out include social welfare support, particularly during the roll-out of Universal Credit, indoor exercise classes for people with disabilities, befriending activities for people with mental health issues, affordable 'handymen' services, and localised support for older Bengali women. (22)

The lack of variety in the forms of exercise enabling progression was a negative element of the intervention for some who were at the later stages of the programme (148)

The range of services on offer meant that, in many cases, there was compatibility between the interests of service users and the activities available: "She got me involved in a walking group. She found me another number for a dancing group. She did really well for me to be honest. She was what I was looking for at the time, to get myself out of the property and do things." (Male client: interview 10, aged 50 years and over. Self-referred to the social prescribing service) Without a range of options to offer to service users, the social prescribing service may not be able to address the needs of all individuals. To allow understanding of the voluntary and community sector, Wellbeing Coordinators discussed how they maintained a good working knowledge of the assets in the community through engaging directly with organisations or through 'umbrella' groups representing the voluntary and community sector (11)

Most referrals were managed by about 10 organisations, but a total of 85 organisations participated to social prescribing showing an attention towards the variety of support provision as well as clients' needs and choices, particularly in terms of geographic proximity. (49)

Issues that may impact the willingness of patients to participate in socially prescribed activities included (…) interest in/appropriateness of activities on offer (…)(5)

"…you need more subsidised sessions and provide more alternative exercise options like tai chi, so those with disabilities would be able to do" (98)

The types of activities available across and within studies in this synthesis varied considerably from counselling, housing support or debt advice to befriending, exercise classes or mental health support. (3)

More generally, the apparent scarcity of good quality work support services in the areas where our case study organisations are based means that Link Workers have few options available to refer clients to. Whilst social prescribing can provide a range of general benefits, there is also evidence on employment-support services which improve employment outcomes for people with severe health and social barriers to work. Improving the evidence base on what types of services are effective, and improving access to them is a key challenge to be addressed. It must also be recognised that community services are limited in their capacity by their funding. In order for social prescribing to be effective, resources need to be put into the community as well to support the development and sustained existence of good quality support services. (118)

Dissatisfaction related to (…) narrow range of activities (…) (93)

Ultimately, however, social prescribing can only work if effective services are available in the community to address patients' social needs. Once clinicians have identified unmet needs and referred patients to community-based resources, what happens if existing services are unable to meet those needs? (152)

Supplementary File 9. References and data extracts for CMO4.

CMOC4. A policy context (C) that sustains bottom-up and coherent policymaking, stable funding and suitable monitoring (M), leads to holistic, relational and redistribute SP (O).

- **Bottom-up policy making**

A lack of supporting policy and guidance from regional and/or national authorities was cited as a barrier to collaboration, meaning GP- VCS collaborations had "no real structure" (6, VCS staff) and relied on the good will of individuals. However, a potential risk of involvement from regional or national bodies was that overarching policy frameworks would be too "top- down" and irrelevant or unsustainable at a local level (52)

A 'go live dates' approach to initiate SP in general practices, i.e. following set dates to initiate SP in surgeries, was identified as a barrier to the implementation and delivery of SP services [31]. Navigators and practice staff were rushed into hosting SP without building relationships and trust between partners, developing shared understanding of outcomes and expectations, agreeing mutually effective working practices, and ensuring the surgery is prepared to host a navigator (56)*.*

Applying a phased roll out approach to implement SP interventions, i.e. changes are made over a period of time with a scheduled plan of steps, was identified as a facilitator to the implementation and delivery of SP [31]. It has the potential to support the development of new and effective partnerships between GP surgeries, navigators, and the third sector and allows time to develop a shared understanding about the programme and expectations between involved partners [29, 31]. It is important to plan a realistic 'lead in' time for setting up SP services, considering that it can take several weeks to set up initial meetings with GP practices [34]. (56)

Being built around a local community and local need, drawing on the skills of the community, was thought to be essential for successful GP- VCS collaborations. GP- VCS collaborations were thought to operate best when allowed to develop with the needs of the community and stakeholders. "Start off small, link yourself to a practice, talk to your workers first so they have got a good idea who to work with engage yourself with that GP, don't promise them anything just slowly and gradually build that relationship, institute bits of work, bits of ideas and just grow it from there" (1, VCS staff) GP- VCS collaborations did not materialise immediately but took time for sufficient trust to develop between partners. The VCS organisations involved here were "established" in their communities and had "stability, that reliability" (16, GP staff) that GP staff valued. Over time collaborations became part of normal working practice. (52)

Finally, and at community level, it was an example of 'grassroots innovation' in which networks of people and organisations organise themselves to generate novel solutions to social problems from the bottom-up (Seyfang and Smith, 2007). They differ from top-down approaches because the involve people and communities developing solutions for the betterment of the local area (ibid) in ways that build capacity and resilience (Kirwin at al, 2013). Pump-primed examples

from the pilot include local neighbourhood groups developing peer-led sensory arts and crafts sessions for people suffering from social isolation and mental health problems, and peer advocacy support to enable women from BME communities to access to health services and social care packages. (21)

It proved difficult in the early stages to resist the temptation to define our key performance indicators (KPIs) from the outset; however, there was a collective sense that this might lead us down a wrong path as we had not yet fully explored how the model might derive benefits for patients and the wider community. We did not want to fall into a trap of hitting targets and missing the point. Over several weeks of discussions, we decided on a way forward that we felt would satisfy the need to demonstrate impact while also maintaining a degree of flexibility in the model to respond to the needs and aspirations of patients and the community as our knowledge and insights grew. We agreed on a series of broad, thematic KPIs (see Box 2) while we trialled and tested out different approaches. On reflection, I think this was a critical success factor in enabling the model to grow and develop as it did. Within nine months of agreeing our thematic KPIs we had worked up sufficient detail in the model to replace these with a suite of robust outcome focussed KPIs (45)

*First, early engagement of a wide range of stakeholders was considered crucial, ensuring that all were knowledgeable of and motivated towards the project; a GP stating, 'I think the most positive element of the process is appropriate stakeholder involvement from day one'. (…) While it was felt that the objectives of the project had been clearly communicated, informants also suggested that high levels of involvement and planning flexibility 'on the ground' had been advantageous – explaining that the project planners had been open to suggestions which in turn promoted ownership and enhanced the '**embedded'** nature of change.* (25)

The VCS should be involved in initial discussions about setting up a connector scheme, to forestall concerns and to ensure those working in this arena feel like valued partners—thereby helping to foster 'buy-in' (140)

- **Policy coherence**

There was an expectation that the third sector had significant spare capacity and would be able to accommodate for all the referrals, regardless of their number. However, in their responses, representatives from the third sector drew attention to the 'unprecedented' level of funding cuts for social care as a major problem for continued and sustainable delivery of social prescribing services. (…) Interviews with small- and medium-sized third and voluntary sector stakeholders also revealed that one of the most significant contextual factors is the lack of funding availability to deliver services. There appears to be some justification for this response as micro, small, and medium size voluntary organisations have experienced an overall decline of income from government (NCVS, 2016) whilst large organisations have seen a substantial increase in income from government. (58)

Although public sector funding cuts and marketisation have been extensively contested (Eikenberry, 2009; Taylor-Gooby, 2012), they are a reality and commissioners are drawn to social innovation because of its perceived ability to deliver a triumvirate of policy objectives in the form of competitively outsourced (i.e. cheaper) service provision, upstream savings to the public purse, and wider societal benefits (social value). (…) These social prescribing services have been developed in a policy environment which places greater emphasis on integrated preventative interventions for people from marginalised and disadvantaged groups (HM Government, 2010) alongside a pressure to reduce public sector budgets and implement market based approaches to delivery. (…) The case study also demonstrates how commissioner's conceptions of social value can tend towards narrow, positivistic quantitative measures of change (Arvidson et al, 2013; Harlock, 2014) with an emphasis on resource utilisation that might lead to 'cashable' savings in the longer term. This is understandable in the context of severe public sector budget cuts (Taylor-Gooby, 2012) and the predominance of neoliberal led ideologies that prioritise reducing public sector costs and responsibilities (Eikenberry, 2009; Evans et al, 2005) (21)

Participants believed that austerity measures, particularly cuts to the welfare system, had brought about an increased demand for services: 'We want to think about everybody having enough of an income that they'll be able to provide food for them and their family. But unfortunately, the way that the welfare system is operating currently … it's about being realistic about how the benefit system in this country is operating.' (CO28) However, this increase in need for services was occurring concurrently with funding cuts, whereby organisations were left with a '… massively reduced' financial resource (CO18), leading to uncertainty about the future: 'Everybody's chasing some sort of money. Like, the women's centre I'm talking about, they're — they don't know if they're gonna be here in a year's time. They're chasing funding.' (CLP4) (50)

The CLPs saw this as potentially damaging to the services that the community organisations (with which they were attempting to build relationships with) could provide: 'I'm seeing more and more of the time, the resources demand, the stretch on organisations in terms of the amount of people that seem to be getting referred to these organisations now. And I think potentially the quality of service of these organisations could suffer.' (CLP6) (50)

CLPs also noted issues with referring patients to organisations that they believed did not have sufficient capacity to support patients. This was particularly difficult to navigate because community organisations were perceived by CLPs to be hesitant to admit any lack of capacity. Confirming these concerns, smaller community organisations suggested that funding was an issue, yet also they would not turn people away: 'We struggled to try and get funding. And so we hit a real stumbling block last year and we had somebody, something like 40 patients and I could not access funding for them … It's just about doing that "can do" thing. It's got nothing to do with that, you just need to believe that you're gonna be able to make, you're gonna have to help people. So the capacity, it's just about the will.' (C O3) (50)

A lack of supporting policy and guidance from regional and/or national authorities was cited as a barrier to collaboration, meaning GP- VCS collaborations had "no real structure" (6, VCS staff) and relied on the good will of individuals. (52)

They relayed how the capacities of community organisations were "stretched" due to recent governmental cutbacks, and this directly affected their ability to invest in and commit to projects. Community leaders referred directly to the challenge of implementing the Green Prescription programme on this limited capacity. For example they referred to the demands of providing on-going support for walking leaders, the financial costs of providing refreshments for participants and of providing heating and lighting within the hall for the Green Steps programme. As a consequence Community Leaders relayed a need for some financial support from the Health Promotion Department to facilitate the implementation of the programme and ensure longer-term sustainability (77)

As reported above, before they could focus on their clients' LTC management needs, link workers often had to deal with crises around welfare benefit appeals, evictions and debt. High demand coupled with decreasing capacity in services such as mental health support, welfare rights and housing advice meant many clients found themselves referred onto waiting lists in order to access services. At follow-up, lengthy waits to access specialist support services meant that link workers were frequently providing direct support with tasks such as welfare and housing applications. As their caseloads increased over time, dealing with the intensity of client's needs could place link workers under strain: You've got medical assessments for benefits, it's a massive time consuming exercise. It's mentally draining. You've got 2 hr appointments. You've got elderly people who are facing homelessness because they've lost their benefit when they were getting disability [benefits]. (…) Onward referral groups and services are a further vital link in the social prescribing chain. Our study supports the suggestion that access to high-quality and continuously funded community resources is central to the success of social prescribing (Whitelaw et al., 2017). Areas of high-socioeconomic deprivation have been disproportionately affected by prolonged austerity around public spending and the resulting cuts to services in the public and voluntary sectors (Bambra & Garthwaite, 2015). This may present an existential threat to social prescribing. (44)

Community groups had not received direct funding from the Health Promotion Department for the establishment of the Community Walks programme; and challenges relating to the availability of resources and funding were a prevalent concern among community leaders. (77)

(…) main challenges to developing relationships between practices and Cos [include:] First, CLPs were concerned about the capacity of COs, in the context of austerity and less funding being available, to deal with increasing numbers of patient referrals. Second, CLPs reported some difficulty in finding referral routes to services offered by larger COs. (96)

A key issue is the third sector's capacity to manage SP. It is clear from my interviews with projects across the city that many projects are operating on stringent budgets. Most have overcome short term funding crises in order to sustain their activity. (90)

"I have fairly negative views about setting things like this up, because they disappear. In my experience, there doesn't seem to be the will to keep that going (…) I mean the funding… the money disappears and it takes such a long time to get something like that going properly, that we all get used to (…) referring to and then it disappears" (S07, line 68) (109)

- **Stable funding**

(…) staff in COs were concerned that the CLP role might not be sustained if funding were cut, and that the effort they had put into developing relationships would be wasted. (96)

(…) effective partnerships are adversely affected by the short term nature of funding: Its harder to get people to invest time in it to develop it as they're always thinking 'is it just going to stop in nine months', we have spent all this time and it is stopping anyway, so people may not invest time in it, as viewed as one of those things that will 'stop again' (37)

Staff who are employed via temporary contracts to support SP pilots (e.g. navigators or project managers), may seek alternative more stable employment, as the future or prospect of their roles might be unclear [31, 35]. (56)

One stakeholder participant was extremely disheartened by the short-term nature of projects providing new services such as social prescribing: "I have fairly negative views about setting things like this up, because they disappear. In my experience, there doesn't seem to be the will to keep that going …. I don't mean the will I mean the funding… the money disappears and it takes such a long time to get something like that going properly, that we all get used to and we get used to referring to and then it disappears" (S07, line 68) (109)

All five respondents expressed a concern that the project should be able to help people over a longer period, one Navigator client saying "it came to an abrupt halt". This highlights the need to ensure continuity of provision and support both at project planning and at a direct support level. (80)

One of the barriers for community-based services and social prescribing in particular is that the future of pilot schemes is not secure because they are funded by grants rather than commissioned. The temporary nature of schemes also means that commissioners, clinicians and service-users are not able to shape the services provided (34)

Community Leaders relayed a need for some financial support from the Health Promotion Department to facilitate the implementation of the programme and ensure longer-term sustainability (77)

Referrals of patients to community activities was seen as challenging because (…) activities delivered by community organisations experience a high turnover. (…) third sector respondents criticised the lack of a sustainable long-term funding provision. (58)

Furthermore, volunteer turnover is generally higher than paid staff turnover, with an average of one in three volunteers leaving the role within a year [31]. Frequent staff turnover disrupted the continuity of the delivery process and required resources to train new volunteers [31]. (56)

The sub-project study of perspectives of staff in COs on the Links Worker Programme43 showed that individual professional relationships were critical to the connections made. Staff turnover, which can be common in small COs with insecure funding, could ***jeopardise*** *these relationships: 'Sometimes you can have a really good relationship with an organisation, and then a worker leaves and it completely changes the dynamic. You know, you've built up a relationship with one person, you feel like you've a good sense of each other, each other's roles, and then somebody moves on and that's lost. And the nature of the third sector is that that's continuous often.' CLP 6, interview* (96)

effective partnerships are adversely affected by the short term nature of funding: Its harder to get people to invest time in it to develop it as they're always thinking 'is it just going to stop in nine months', we have spent all this time and it is stopping anyway, so people may not invest time in it, as viewed as one of those things that will 'stop again'(HCP, West Cumbria) (37)

Finally, GP- VCS collaborations appeared to suffer because of an actual and/or perceived lack of continuity, both across the VCS sector as a whole and within individual GPs and VCS organisations. Short- term funding for VCS organisations resulted in an "unintended unreliability" (15, GP staff); GPs may be reluctant to invest in relationships that may be subject to change. While the VCS organisations involved in this research were "community anchor organisations" embedded in their communities—in contrast to VCS organisations that parachute in and out to deliver specific contracts—they were still viewed with scepticism, such that it is not worth GP staff investing in relationships. "Over the years…I can see this look and people saying 'thank you, thank you for coming'… people want to engage with [VCS organisations] but are thinking 'if I use any energy to do this it's not going to be worth it'" (52)

'A couple of respondents commented on the lack of money that comes from receiving referrals and how this impacts on the capacity within the organisations to continue to provide the service' (14)

'(…) the VCS expressed a concern that referrals were skewed to a small number of providers who were subsequently struggling to meet demand with limited financial and human resource and there was reliance upon individual goodwill' (22)

'I'm seeing more and more of the time, the resources demand, the stretch on organisations in terms of the amount of people that seem to be getting referred to these organisations now. And I think potentially the quality of service of these organisations could suffer.' (CLP6) (50)

"If bids are open to all kinds of new service providers, you see groups who've spent years building links and local trust lose out to organisations coming in with smart application skills." (137)

'But what we're faced with is competing for funding, that's the bottom line, and it creates dishonesty ... people have to make the pretence of meeting targets and that to survive now, so we lose that chance of working together'. (Paul, St Jude's Community Centre) (137)

Others were concerned about the impact on resources if they had to deliver future activities without additional funding. Jesper from Aalborg Theatre expressed concern about what they had experienced with new-audience development and recognised that one part was about idealism and the other part was about business: 'When you are starting something, idealism is the driver. But there is always an excel sheet somewhere […] asking if the investment results in regular customers in the shop…? And they don't, do they? So I think it would be very difficult, in our house, to argue that we continue and cover the costs ourselves.' (142)

- **Suitable monitoring**

"… this kind of thing [SROI] is going to happen more and more with the more savvy, well-funded, intellectually and business-driven organisations, so that's fine for [them]. A small local organisation that's maybe mutually owned…is going to struggle with this." (Commissioner, LA 5) (135)

At first, providers reported that they were generally happy with the metrics and indicators that were being used to measure their performance (P#12, R1), and they were similar to metrics that they would have chosen themselves. However, there were also significant tensions between the institutional work required to create the SIB, and that required to expand a programme which tackled the social determinants of health. We can see this at the meso-level through tension between the requirements of the SIB to focus the programme only on those for whom reliable 'impact' data could be collected and the judgement of GPs as to who would benefit from this programme's approach. (134)

This requirement of the SIB performance management mechanism had three negative effects on the institutional work required to expand programmes to tackle the social determinants of health. Firstly, it prevented the programme being able to support groups which could have best helped demonstrate the case for this approach to commissioners. Secondly, it meant that the original prevention/early intervention focus of the SDH programme became diluted as the requirements of the payment mechanisms meant that the focus had to be on patient groups where evidence for the effects of the intervention was available to meet the proof of cost savings requirements. Thirdly, it made it more difficult for the programme to develop effective relationships with GPs (and thus to secure referrals) because GPs felt that the SDH was not focussed on those they had identified as being in the most need (P#12, R1). These elaborate Dowling's (2017) critique concerning the reality of whether cost savings can actually be achieved through SIBs and reinforces the critique by McHugh et al, (2013) which highlights the over simplification of outcomes that SIBs seem to produce (134)

Providers also reported that, if they were free to choose how to use the recording tools given to them, they would use them differently. For example, they would use a well-being metric to record client progress at time intervals chosen by the worker, based on their understanding

of client need, rather than at the rigid time-intervals demanded by the SDH performance indicators. (134)

As identified by Joy and Shields (2013), the experience of providers suggests that the process of generating evidence to meet the performance indicators set by SDH distorted practice, was resource intensive, stressful (P#12, R2) and encouraged 'creaming' of clients – working with those who are easiest to help (P#2, R2). There were also indications of 'teaching to the test' activity which enables targets to be met, but which does not address the wider problem which the programme seeks to address (P#12, R2). This gaming is also consistent with findings from the outcomes-based performance literature (Lowe and Wilson, 2015). In addition, the providers had a number of reservations about how the data from their reporting was being interpreted for contract management. In particular, they had serious concerns about whether the data they were generating for the information system was an accurate reflection of the work they were doing (P#13, R2). (134)

Providers didn't necessarily feel that collecting data was unhelpful, but they came to the view that the data required by the SDH programme was unhelpful and inaccurate. Some providers actually collected additional data to facilitate a performance management conversation with the SPV manager (P#11, R2) and with GPs. The type of data they were collecting was also not seen as useful in a learning sense and couldn't be used to inform practice but just enforce the contract (P#13, R2). This creates an interesting contrast with the original rhetoric of those who developed the SIB, who expected it to offer 'robust' services through more-effective data analysis (P#1, 2, 4 & P#8, R1). (134)

REFERENCES:

1. Pawson R, Greenhalgh T, Harvey G WK. Realist Synthesis: An Introduction. Manchester; 2014.
2. Wong G, Greenhalgh T, Westhorp G, Pawson R. Development of methodological guidance, publication standards and training materials for realist and meta-narrative reviews: the RAMESES (Realist And Meta-narrative Evidence Syntheses – Evolving Standards) project. Heal Serv Deliv Res [Internet]. 2014 Sep;2(30):1–252. Available from: https://www.journalslibrary.nihr.ac.uk/hsdr/hsdr02300/
3. Public Health England. Effectiveness of social prescribing - An evidence synthesis [Internet]. London; 2019 [cited 2019 Sep 29]. Available from: www.facebook.com/PublicHealthEngland
4. Pilkington K, Loef M, Polley M. Searching for Real-World Effectiveness of Health Care Innovations: Scoping Study of Social Prescribing for Diabetes. J Med Internet Res [Internet]. 2017 Feb 2 [cited 2018 May 14];19(2):e20–e20. Available from: http://www.ncbi.nlm.nih.gov/pubmed/28153817
5. Bickerdike L, Booth A, Wilson PM, Farley K, Wright K, Wilson PM. Social prescribing: less rhetoric and more reality. A systematic review of the evidence. BMJ Open [Internet]. 2017 [cited 2018 Jun 2];7(4):e013384. Available from: http://dx.doi.org/
6. Papoutsi C, Mattick K, Pearson M, Brennan N, Briscoe S, Wong G. Interventions to improve antimicrobial prescribing of doctors in training (IMPACT): a realist review. Heal Serv Deliv Res [Internet]. 2018 Feb;6(10):1–136. Available from: https://www.journalslibrary.nihr.ac.uk/hsdr/hsdr06100
7. Pawson R. The Science of Evaluation: A Realist Manifesto. Sage, editor. London, UK; 2013. 22–37 p.
8. Ritzer G. Meta-theorizing in Sociology. Lexington Books, editor. Lexington, MA; 1991.
9. Roen K, Arai L, Roberts H, Popay J. Extending systematic reviews to include evidence on implementation: Methodological work on a review of community-based initiatives to prevent injuries. Soc Sci Med [Internet]. 2006 Aug;63(4):1060–71. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0277953606000943
10. Rempel ES, Wilson EN, Durrant H, Barnett J. Preparing the prescription: a review of the aim and measurement of social referral programmes. BMJ Open [Internet]. 2017 Oct 12 [cited 2018 Jun 12];7(10):e017734. Available from: http://www.ncbi.nlm.nih.gov/pubmed/29025843
11. Woodall J, Trigwell J, Bunyan A-MM, Raine G, Eaton V, Davis J, et al. Understanding the effectiveness and mechanisms of a social prescribing service: a mixed method analysis. BMC Heal Serv Res [Internet]. 2018;18(1):604. Available from: http://dx.doi.org/10.1186/s12913-018-3437-7
12. Darnton P, Liles A, Sladen J, Benson T, Lawford N. Independent evaluation of the North East Hampshire and Farnham Vanguard. Making Connections service [Internet].

Southampton: Wessex AHSN; 2018. Available from: http://www.northeasthampshireandfarnhamccg.nhs.uk/about-the-ccg/happy-healthy-at-home/achievements

13. Pescheny J, Randhawa G, Pappas Y. Patient uptake and adherence to social prescribing: a qualitative study. BJGP Open [Internet]. 2018 Aug 7;2(3):bjgpopen18X101598. Available from: https://bjgpopen.org/content/bjgpoa/2/3/bjgpopen18X101598.full.pdf

14. Ferguson K. Key findings from the social prescribing survey conducted with voluntary and community sector organisations in Tower Hamlets 2017. London: THT; 2018.

15. Loftus AM, McCauley F, McCarron MO. Impact of social prescribing on general practice workload and polypharmacy. Public Health. 2017 Jul 1;148:96–101.

16. Prior F, Coffey M, Robins A, Cook P. Long-Term Health Outcomes Associated With an Exercise Referral Scheme: An Observational Longitudinal Follow-Up Study. J Phys Act Heal [Internet]. 2019 Apr;16(4):288–93. Available from: https://journals.humankinetics.com/doi/10.1123/jpah.2018-0442

17. Stewart EE, Taylor-Post N, Nichols L, Staton EW SA. Review of Community connections: Linking primary care patients to local resources for better management of obesity. Vol. 16, 14-0030-EF. Rockville; 2014.

18. Kilgarriff-Foster A, O'Cathain A. Exploring the components and impact of social prescribing. J Public Ment Health [Internet]. 2015 Sep 21 [cited 2018 Jun 10];14(3):127–34. Available from: http://eprints.whiterose.ac.uk/96464/

19. Chatterjee HJ, Camic PM, Lockyer B, Thomson LJM. Non-clinical community interventions: a systematised review of social prescribing schemes. Arts Health [Internet]. 2018 May 4 [cited 2019 Jun 20];10(2):97–123. Available from: https://www.tandfonline.com/doi/full/10.1080/17533015.2017.1334002

20. Chesterman D, Bray M. Report on some action research in the implementation of social prescription in Crawley. Paths to greater wellbeing: 'sometimes you have to be in it to get it.' Action Learn Res Pract [Internet]. 2018;15(2):168–81. Available from: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85047840904&doi=10.1080%2F14767333.2018.1467302&partnerID=40&md5=40379f0bdae94c79daa1775e5d8aa141

21. Dayson C. Evaluating social innovations and their contribution to social value: The benefits of a "blended value" approach. Policy Polit [Internet]. 2017;45(3):395–411. Available from: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85021826832&doi=10.1332%2F030557316X14564838832035&partnerID=40&md5=184467db08d9bcd4ea330c220d3760f9

22. Ferguson K, Hogarth S. Social prescribing in Tower Hamlets: evaluation of borough-wide roll-out. London, UK: University Collegue London; 2018.

23. Blickem C, Kennedy A, Vassilev I, Morris R, Brooks H, Jariwala P, et al. Linking people with long-term health conditions to healthy community activities: development of Patient-Led Assessment for Network Support (PLANS). Heal Expect [Internet].

2013;16(3):e48-59. Available from: http://dx.doi.org/10.1111/hex.12088

24. Elston J, Gradinger F, Asthana S, Lilley-Woolnough C, Wroe S, Harman H, et al. Does a social prescribing 'holistic' link-worker for older people with complex, multimorbidity improve well-being and frailty and reduce health and social care use and costs? A 12-month before-and-after evaluation. Prim Health Care Res Dev [Internet]. 2019 Sep 24;20:e135. Available from: https://www.cambridge.org/core/product/identifier/S1463423619000598/type/journal_article

25. Whitelaw S, Thirlwall C, Morrison A, Osborne J, Tattum L, Walker S. Developing and implementing a social prescribing initiative in primary care: insights into the possibility of normalisation and sustainability from a UK case study. Prim Health Care Res Dev [Internet]. 2017 Mar 8 [cited 2019 Jun 21];18(2):112–21. Available from: http://dx.doi.org/10.1017/S1463423616000219

26. White JM, Cornish F, Kerr S. Front-line perspectives on 'joined-up' working relationships: a qualitative study of social prescribing in the west of Scotland. Health Soc Care Community [Internet]. 2017 Jan;25(1):194–203. Available from: http://dx.doi.org/10.1111/hsc.12290

27. Polley M, Bertotti M, Kimberlee R, Pilkington K, Refsum C, Carpenter A, et al. A review of the evidence assessing impact of social prescribing on healthcare demand and cost implications [Internet]. London: University of Westminster; 2017 [cited 2018 Jun 10]. Available from: http://westminsterresearch.wmin.ac.uk/19223/1/review-of-evidence-assessing-impact-of-social-prescribing.pdf

28. Dayson C, Hogarth S. Evaluation of HALE Community Connectors Social Prescribing Service. Sheffield : Sheffield Hallam University,; 2018.

29. Martín-Borràs C, Giné-Garriga M, Puig-Ribera A, Martín C, Solà M, Cuesta-Vargas AI. A new model of exercise referral scheme in primary care: is the effect on adherence to physical activity sustainable in the long term? A 15-month randomised controlled trial. BMJ Open [Internet]. 2018 Mar;8(3):e017211. Available from: http://dx.doi.org/10.1136/bmjopen-2017-017211

30. Husk K, Blockley K, Lovell R, Bethel A, Lang I, Byng R, et al. What approaches to social prescribing work, for whom, and in what circumstances? A realist review. Health Soc Care Community [Internet]. 2020 Mar 9;28(2):309–24. Available from: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072028393&doi=10.1111%2Fhsc.12839&partnerID=40&md5=f85c1f100e5791b1dcaafa0f3a6a14a4

31. Pescheny JV, Gunn LH, Randhawa G, Pappas Y. The impact of the Luton social prescribing programme on energy expenditure: a quantitative before-and-after study. BMJ Open [Internet]. 2019;9(6):e026862–e026862. Available from: http://dx.doi.org/10.1136/bmjopen-2018-026862

32. Pescheny J V, Randhawa G, Pappas Y. The impact of social prescribing services on service users: a systematic review of the evidence. Eur J Public Health [Internet]. 2020

Aug 1;30(4):664–73. Available from: http://dx.doi.org/10.1093/eurpub/ckz078

33. Carnes D, Sohanpal R, Frostick C, Hull S, Mathur R, Netuveli G, et al. The impact of a social prescribing service on patients in primary care: a mixed methods evaluation. BMC Heal Serv Res [Internet]. 2017 Dec 19 [cited 2018 Jun 4];17(1):835. Available from: http://dx.doi.org/10.1186/s12913-017-2778-y

34. Thomson LJ, Camic PM, Chatterjee HJ. Social prescribing: a review of community referral schemes. London: UCL; 2015.

35. Moffatt S, Steer M, Lawson S, Penn L, O'Brien N. Link Worker social prescribing to improve health and well-being for people with long-term conditions: qualitative study of service user perceptions. BMJ Open [Internet]. 2017 Jul 16 [cited 2018 Jun 4];7(7):e015203. Available from: http://dx.doi.org/10.1136/bmjopen-2016-015203

36. Pons-Vigués M, Berenguera A, Coma-Auli N, March S, Pombo H, Masluk B, et al. Qualitative evaluation of a complex intervention to implement health promotion activities according to healthcare attendees and health professionals: EIRA study (phase II). BMJ Open [Internet]. 2019;9(3):e023872–e023872. Available from: http://dx.doi.org/10.1136/bmjopen-2018-023872

37. Wigfield A, Alden S, Erika K. Age UK's fit for the future 'Social Prescribing' extension project: evaluation report. Leeds: University of Leeds; 2015.

38. Arsenijevic J, Groot W. Physical activity on prescription schemes (PARS): do programme characteristics influence effectiveness? Results of a systematic review and meta-analyses. BMJ Open [Internet]. 2017 Feb 2;7(2):e012156. Available from: http://dx.doi.org/10.1136/bmjopen-2016-012156

39. Campbell F, Holmes M, Everson-Hock E, Davis S, Buckley Woods H, Anokye N, et al. A systematic review and economic evaluation of exercise referral schemes in primary care: a short report. Health Technol Assess (Rockv) [Internet]. 2015 Jul;19(60):1–110. Available from: https://www.journalslibrary.nihr.ac.uk/hta/hta19600#/abstract

40. Lindau ST, Makelarski J, Abramsohn E, Beiser DG, Escamilla V, Jerome J, et al. CommunityRx: A Population Health Improvement Innovation That Connects Clinics To Communities. Health Aff [Internet]. 2016 Nov;35(11):2020–9. Available from: http://www.healthaffairs.org/doi/10.1377/hlthaff.2016.0694

41. Hamilton-West K, Gadsby E, Zaremba N, Jaswal S. Evaluability assessments as an approach to examining social prescribing. Heal Soc Care Community [Internet]. 2019;27(4):1085–94. Available from: http://dx.doi.org/10.1111/hsc.12726

42. Wildman JM, Moffatt S, Steer M, Laing K, Penn L, O'Brien N. Service-users' perspectives of link worker social prescribing: a qualitative follow-up study. BMC Public Health [Internet]. 2019 Dec 22 [cited 2019 Jun 21];19(1):98. Available from: https://doi.org/10.1186/s12889-018-6349-x

43. Hanlon P, Gray CM, Chng NR, Mercer SW. Does Self-Determination Theory help explain the impact of social prescribing? A qualitative analysis of patients' experiences of the Glasgow 'Deep-End' Community Links Worker Intervention. Chronic

Illn. 2019;1742395319845427–1742395319845427.

44. Wildman JM, Moffatt S, Penn L, O'Brien N, Steer M, Hill C. Link workers' perspectives on factors enabling and preventing client engagement with social prescribing. Health Soc Care Community [Internet]. 2019 Jul 14;27(4):991–8. Available from: http://dx.doi.org/10.1111/hsc.12716

45. Swift M. People powered primary care: Learning from Halton. J Integr Care [Internet]. 2017;25(3):162–73. Available from: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85021350070&doi=10.1108%2FJICA-12-2016-0050&partnerID=40&md5=d8743df21cf5af5746b0ed962c9ee9e1

46. Social prescribing in Wessex: understanding its impact and supporting spread [Internet]. Southampton: Wessex Academic Health Science Network; 2017. Available from: http://wessexahsn.org.uk/projects/222/summary-evaluation-reports-and-papers

47. Beech R, Ong BN, Jones S, Edwards V. Delivering person-centred holistic care for older people. Qual Ageing Older Adults. 2017;18(2):157–67.

48. Coan J. Social prescribing at the Bromley by Bow Centre: annual report. April 2015 - March 2016. London: Bromley by Bow Centre,; 2016.

49. City and Hackney Clinical Commissioning Group. University of East London. Shine 2014 final report. Social Prescribing. Integrating GP and community assets for Health. [Internet]. London: The Health Foundation; 2015 [cited 2018 Jun 8]. Available from: www.health.org.uk

50. Skivington K, Smith M, Chng NR, Mackenzie M, Wyke S, Mercer SW. Delivering a primary care-based social prescribing initiative: a qualitative study of the benefits and challenges. Br J Gen Pr [Internet]. 2018 Jul 1 [cited 2019 Feb 2];68(672):e487–94. Available from: http://dx.doi.org/10.3399/bjgp18X696617

51. Dayson C, Fraser A, Lowe T. A Comparative Analysis of Social Impact Bond and Conventional Financing Approaches to Health Service Commissioning in England: The Case of Social Prescribing. J Comp Policy Anal Res Pract [Internet]. 2020 Mar 3;22(2):153–69. Available from: https://www.tandfonline.com/doi/full/10.1080/13876988.2019.1643614

52. Southby K, Gamsu M. Factors affecting general practice collaboration with voluntary and community sector organisations. Heal Soc Care Community [Internet]. 2018;26(3):e360–9. Available from: http://dx.doi.org/10.1111/hsc.12538

53. Heijnders ML, Meijs JJ. "Welzijn op Recept" (Social Prescribing): A helping hand in re-establishing social contacts-an explorative qualitative study. Prim Heal Care Res Dev. 2018;19(3).

54. Wilson P BA. Evidence to inform the commissioning of social prescribing [Internet]. Evidence briefing. York: University of York; 2015 [cited 2018 Jun 2]. Available from: https://www.york.ac.uk/media/crd/Ev briefing_social_prescribing.pdf

55. Tierney S, Wong G, Mahtani KR. Current understanding and implementation of 'care

navigation' across England: a cross-sectional study of NHS clinical commissioning groups. Br J Gen Pract [Internet]. 2019 Oct;69(687):e675–81. Available from: http://bjgp.org/lookup/doi/10.3399/bjgp19X705569

56. Pescheny JV, Pappas Y, Randhawa G. Facilitators and barriers of implementing and delivering social prescribing services: a systematic review. BMC Health Serv Res [Internet]. 2018 [cited 2018 Jun 12];18(1):86. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5803993/pdf/12913_2018_Article_2893.pdf

57. South J, Higgins TJ, Woodall J, White SM, James; W. Can social prescribing provide the missing link? Prim Heal Care Res Dev [Internet]. 2008 Oct 4 [cited 2018 Jun 17];9(4):310–8. Available from: http://www.journals.cambridge.org/abstract_S146342360800087X

58. Bertotti M, Frostick C, Hutt P, Sohanpal R, Carnes D. A realist evaluation of social prescribing: an exploration into the context and mechanisms underpinning a pathway linking primary care with the voluntary sector. Prim Heal Care Res Dev [Internet]. 2018 [cited 2018 Jun 26];19(3):232–45. Available from: http://dx.doi.org/10.1017/S1463423617000706

59. Bragg R, Leck C. Good practice in social prescribing for mental health: the role of nature-based interventions. [Internet]. Natural England Commissioned Report. York: Natural England; 2017. Available from: http://publications.naturalengland.org.uk/publication/5134438692814848

60. Bungay H, Clift S. Arts on Prescription: A review of practice in the UK. Perspect Public Health. 2010;130(6):277–81.

61. Grant C. A randomised controlled trial and economic evaluation of a referrals facilitator between primary care and the voluntary sector. BMJ [Internet]. 2000 Feb 12;320(7232):419–23. Available from: http://www.bmj.com/cgi/doi/10.1136/bmj.320.7232.419

62. Jensen A. Culture Vitamins – an Arts on Prescription project in Denmark. Perspect Public Health [Internet]. 2019 May 8;139(3):131–6. Available from: http://journals.sagepub.com/doi/10.1177/1757913919836145

63. Jensen A, Stickley T, Torrissen W, Stigmar K. Arts on prescription in Scandinavia: a review of current practice and future possibilities. Perspect Public Health. 2017;137(5):268–74.

64. Maughan DL, Patel A, Parveen T, Braithwaite I, Cook J, Lillywhite R, et al. Primary-care-based social prescribing for mental health: an analysis of financial and environmental sustainability. Prim Heal Care Res Dev [Internet]. 2016;17(2):114–21. Available from: http://dx.doi.org/10.1017/S1463423615000328

65. Redmond M, Sumner RC, Crone DM, Hughes S. Light in dark places: exploring qualitative data from a longitudinal study using creative arts as a form of social prescribing. Arts Heal [Internet]. 2018;1–14. Available from:

http://dx.doi.org/10.1080/17533015.2018.1490786

66. Social prescribing: A model for partnership working between primary care and the voluntary sector. Age UK; 2018.

67. Stickley T, Eades M. Arts on prescription: a qualitative outcomes study. Public Health [Internet]. 2013;127(8):727–34. Available from: http://dx.doi.org/10.1016/j.puhe.2013.05.001

68. Stickley T, Hui A. Social prescribing through arts on prescription in a UK city: Referrers' perspectives (part 2). Public Health [Internet]. 2012 Jul;126(7):580–6. Available from: http://dx.doi.org/10.1016/j.puhe.2012.04.001

69. Stickley T, Hui A. Social prescribing through arts on prescription in a UK city: Participants' perspectives (Part 1). Public Health [Internet]. 2012 Jul;126(7):574–9. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0033350612001382

70. Sumner RC, Crone DM, Baker C, Hughes S, Loughren EA, James DVB. Factors associated with attendance, engagement and wellbeing change in an arts on prescription intervention. J public Heal [Internet]. 2019 Apr 8; Available from: http://dx.doi.org/10.1093/pubmed/fdz032

71. Thomson LJ, Lockyer B, Camic PM, Chatterjee HJ. Effects of a museum-based social prescription intervention on quantitative measures of psychological wellbeing in older adults. Perspect Public Heal [Internet]. 2018;138(1):28–38. Available from: http://dx.doi.org/10.1177/1757913917737563

72. Arts on prescription in Sefton. Programme Report December 2009 [Internet]. Netherton: Creative Alternatives; 2009. Available from: http://www.artsforhealth.org/resources/CA Report 2009.pdf

73. Whelan G, Holden H, Bockler J. A social return on investment evaluation of the St Helens Creative Alternatives arts on prescription programme [Internet]. St Helens: Creative Alternatives; 2016. Available from: http://iccliverpool.ac.uk/?research=evaluation-of-creative-alternatives-arts-on-prescription-programme

74. Alarcón-Belmonte IA, Veganzones-Guanyabens I. Recomendación de activos de la comunidad: ¿lo hacemos desde atención primaria? FMC - Form Médica Contin en Atención Primaria [Internet]. 2019 Aug;26(7):420–3. Available from: https://linkinghub.elsevier.com/retrieve/pii/S1134207219301525

75. Formento-Marín N, Aparicio-Juez S, Andrés-Agorreta P, García-Júlvez M. "Las fuentes activa". Proyecto de recomendación de activos en una comunidad. Metas de enfermería. 2019;22(6):49–56.

76. Faulkner M. Supporting the psychosocial needs of patients in general practice: the role of a voluntary referral service. Patient Educ Couns [Internet]. 2004 Jan 1 [cited 2019 Jun 21];52(1):41–6. Available from: https://www.sciencedirect.com/science/article/pii/S0738399102002471?via%3Dihub

77. Stirrat S. An Evaluation of the Green Prescription Programme in Co. Donegal. Institute of Technology Sligo; 2014.

78. Ackermann RT, Deyo RA, LoGerfo JP. Prompting Primary Providers to Increase Community Exercise Referrals for Older Adults: A Randomized Trial. J Am Geriatr Soc [Internet]. 2005 Feb;53(2):283–9. Available from: http://doi.wiley.com/10.1111/j.1532-5415.2005.53115.x

79. Roessler KK. A corrective emotional experience - or just a bit of exercise? The relevance of interpersonal learning in Exercise on prescription. Scand J Psychol [Internet]. 2011 Aug;52(4):354–60. Available from: http://doi.wiley.com/10.1111/j.

80. Baines A. Rugby Social Prescribing Project ConnectWELL. Harnessing community capacity to improve health and wellbeing. Vol. 151. Coventry: Roundberry Projects; 2015.

81. Harrison RA, McNair F, Dugdill L. Access to exercise referral schemes - a population based analysis. J Public Health (Bangkok) [Internet]. 2005 Dec 1;27(4):326–30. Available from: https://academic.oup.com/jpubhealth/article-lookup/doi/10.1093/pubmed/fdi048

82. Edmunds J, Ntoumanis N, Duda JL. Adherence and well-being in overweight and obese patients referred to an exercise on prescription scheme: A self-determination theory perspective. Psychol Sport Exerc [Internet]. 2007 Sep;8(5):722–40. Available from: https://linkinghub.elsevier.com/retrieve/pii/S146902920600077X

83. Jones F, Harris P, Waller H, Coggins A. Adherence to an exercise prescription scheme: The role of expectations, self-efficacy, stage of change and psychological well-being. Br J Health Psychol [Internet]. 2005 Sep;10(3):359–78. Available from: http://doi.wiley.com/10.1348/135910704X24798

84. Murphy SM, Edwards RT, Williams N, Raisanen L, Moore G, Linck P, et al. An evaluation of the effectiveness and cost effectiveness of the National Exercise Referral Scheme in Wales, UK: a randomised controlled trial of a public health policy initiative. J Epidemiol Community Health [Internet]. 2012 Aug;66(8):745–53. Available from: http://jech.bmj.com/lookup/doi/10.1136/jech-2011-200689

85. Gidlow C, Johnston LH, Crone D, James D. Attendance of exercise referral schemes in the UK: A systematic review. Health Educ J [Internet]. 2005 Jun 27;64(2):168–86. Available from: http://journals.sagepub.com/doi/10.1177/001789690506400208

86. Rahman RJ, Thogersen-Ntoumani C, Thatcher J, Doust J. Changes in need satisfaction and motivation orientation as predictors of psychological and behavioural outcomes in exercise referral. Psychol Health [Internet]. 2011 Nov;26(11):1521–39. Available from: http://www.tandfonline.com/doi/abs/10.1080/08870446.2010.538849

87. Morton KL, Biddle SJH, Beauchamp MR. Changes in self-determination during an exercise referral scheme. Public Health [Internet]. 2008 Nov;122(11):1257–60. Available from: https://linkinghub.elsevier.com/retrieve/pii/S003335060700371X

88. Munro JF. Cost effectiveness of a community based exercise programme in over 65 year

olds: cluster randomised trial. J Epidemiol Community Heal [Internet]. 2004 Dec 1;58(12):1004–10. Available from: http://jech.bmj.com/cgi/doi/10.1136/jech.2003.014225

89. Edwards RT, Linck P, Hounsome N, Raisanen L, Williams N, Moore L, et al. Cost-effectiveness of a national exercise referral programme for primary care patients in Wales: Results of a randomised controlled trial. BMC Public Health. 2013;13(1):1–11.

90. Kimberlee RH. Developing a Social Prescribing approach for Bristol [Internet]. Bristol: University of the West of England; 2013. Available from: http://eprints.uwe.ac.uk/23221/1/Social Prescribing Report-final.pdf

91. Harrison RA, Roberts C, Elton PJ. Does primary care referral to an exercise programme increase physical activity one year later? A randomized controlled trial. J Public Health (Bangkok) [Internet]. 2005 Mar 1;27(1):25–32. Available from: https://academic.oup.com/jpubhealth/article-lookup/doi/10.1093/pubmed/fdh197

92. Pavey TG, Taylor AH, Fox KR, Hillsdon M, Anokye N, Campbell JL, et al. Effect of exercise referral schemes in primary care on physical activity and improving health outcomes: systematic review and meta-analysis. BMJ [Internet]. 2011 Nov 4 [cited 2018 Jun 10];343:d6462. Available from: http://www.ncbi.nlm.nih.gov/pubmed/22058134

93. Williams NH, Hendry M, France B, Lewis R, Wilkinson C. Effectiveness of exercise-referral schemes to promote physical activity in adults: systematic review. Br J Gen Pract [Internet]. 2007 Dec 1;57(545):979–86. Available from: http://openurl.ingenta.com/content/xref?genre=article&issn=0960-1643&volume=57&issue=545&spage=979

94. Duda JL, Williams GC, Ntoumanis N, Daley A, Eves FF, Mutrie N, et al. Effects of a standard provision versus an autonomy supportive exercise referral programme on physical activity, quality of life and well-being indicators: a cluster randomised controlled trial. Int J Behav Nutr Phys Act [Internet]. 2014;11(1):10. Available from: http://ijbnpa.biomedcentral.com/articles/10.1186/1479-5868-11-10

95. Kok M, Solomon-Moore E, Greaves C, Smith J, Kimberlee R, Jones M. Evaluation of Living Well, Taking Control: a community-based diabetes prevention and management programme [Internet]. Bristol; 2016. Available from: http://eprints.uwe.ac.uk/30234/13/LWTC Evaluation Report_finalISBN.pdf

96. Mercer S. Evaluation of the Glasgow “Deep End” Links Worker Programme [Internet]. Edinburgh; 2017. Available from: http://www.healthscotland.com/uploads/documents/29438-1. Evaluation of the Glasgow “Deep End” Links Worker Programme - May 2017 - English.pdf

97. Isaacs A, Critchley J, See Tai S, Buckingham K, Westley D, Harridge S, et al. Exercise Evaluation Randomised Trial (EXERT): a randomised trial comparing GP referral for leisure centre-based exercise, community-based walking and advice only. Health Technol Assess (Rockv) [Internet]. 2007 Mar;11(10). Available from: https://www.journalslibrary.nihr.ac.uk/hta/hta11100/

98. Flannery O, Loughren EA, Baker C, Crone D. Exercise on Prescription Evaluation Report for South Gloucestershire [Internet]. Cheltenham: University of Gloucestershire; 2014. Available from: http://eprints.glos.ac.uk/2379/

99. Mills H, Crone D, James DVB, Johnston LH. Exploring the Perceptions of Success in an Exercise Referral Scheme: a mixed method investigation. Eval Rev [Internet]. 2012 Dec 2;36(6):407–29. Available from: http://journals.sagepub.com/doi/10.1177/0193841X12474452

100. James D, Mills H, Crone D, Johnston LH, Morris C, Gidlow CJ. Factors associated with physical activity referral completion and health outcomes. J Sports Sci [Internet]. 2009 Aug;27(10):1007–17. Available from: http://www.tandfonline.com/doi/abs/10.1080/02640410903214248

101. Penn L, Ryan V, White M. Feasibility, acceptability and outcomes at a 12-month follow-up of a novel community-based intervention to prevent type 2 diabetes in adults at high risk: mixed methods pilot study. BMJ Open [Internet]. 2013 Nov;3(11):e003585. Available from: http://bmjopen.bmj.com/lookup/doi/10.1136/bmjopen-2013-003585

102. Dayson C, Bashir N, Bennett E, Sanderson E. The Rotherham Social Prescribing Service for People with Long-Term Health Conditions: Annual Evaluation Report. Sheffield: Sheffield Hallam University. Centre for Regional Economic and Social Research; 2016.

103. Kimberlee RH. Gloucestershire Clinical Commissioning Group's Social Prescribing Service: Evaluation Report [Internet]. Bristol: University of the West of England; 2016. Available from: http://www.periphery.co.uk/joyn

104. Wormald H, Ingle L. GP exercise referral schemes: Improving the patient's experience. Health Educ J [Internet]. 2004 Dec 27;63(4):362–73. Available from: http://journals.sagepub.com/doi/10.1177/001789690406300407

105. Jepson R, Cameron H, Robertson R. Green Prescription Schemes: Mapping and Current Practice. Edinburgh: NHS Health Scotland; 2010.

106. Graham RC, Dugdill L, Cable NT. Health professionals' perspectives in exercise referral: implications for the referral process. Ergonomics [Internet]. 2005 Sep 15;48(11–14):1411–22. Available from: https://www.tandfonline.com/doi/full/10.1080/00140130500101064

107. Din NU, Moore GF, Murphy S, Wilkinson C, Williams NH. Health professionals' perspectives on exercise referral and physical activity promotion in primary care: Findings from a process evaluation of the National Exercise Referral Scheme in Wales. Health Educ J [Internet]. 2015 Nov 27;74(6):743–57. Available from: http://journals.sagepub.com/doi/10.1177/0017896914559785

108. Rouse PC, Ntoumanis N, Duda JL, Jolly K, Williams GC. In the beginning: Role of autonomy support on the motivation, mental health and intentions of participants entering an exercise referral scheme. Psychol Health [Internet]. 2011 Jun;26(6):729–49. Available from: http://www.tandfonline.com/doi/abs/10.1080/08870446.2010.492454

109. Brandling J, House W. Investigation into the feasibility of a social prescribing service in

primary care: a pilot project [Internet]. Bath: University of Bath; 2007 [cited 2018 Jun 2]. Available from: http://opus.bath.ac.uk/22487/1/Brandling_SocialPrescribingFeasabilityReport.pdf

110. Dinan S, Lenihan P, Tenn T, Iliffe S. Is the promotion of physical activity in vulnerable older people feasible and effective in general practice? Br J Gen Pract [Internet]. 2006 Oct;56(531):791–3. Available from: http://www.ncbi.nlm.nih.gov/pubmed/17007711

111. F. Moore G, Raisanen L, Moore L, Ud Din N, Murphy S. Mixed-method process evaluation of the Welsh National Exercise Referral Scheme. Health Educ [Internet]. 2013 Oct 14;113(6):476–501. Available from: https://www.emerald.com/insight/content/doi/10.1108/HE-08-2012-0046/full/html

112. Wormald H, Waters H, Sleap M, Ingle L. Participants' perceptions of a lifestyle approach to promoting physical activity: targeting deprived communities in Kingston-Upon-Hull. BMC Public Health [Internet]. 2006 Dec 4;6(1):202. Available from: https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-6-202

113. Penn L, Dombrowski SU, Sniehotta FF, White M. Participants' perspectives on making and maintaining behavioural changes in a lifestyle intervention for type 2 diabetes prevention: a qualitative study using the theory domain framework. BMJ Open [Internet]. 2013 Jun;3(6):e002949. Available from: http://bmjopen.bmj.com/lookup/doi/10.1136/bmjopen-2013-002949

114. Kier Business Services Limited. Patient Empowerment Project Final Evaluation Report [Internet]. Leeds; 2016. Available from: https://www.leedsccg.nhs.uk/content/uploads/2018/05/Patient-Empowerment-Project-Leeds-West-Final-Report.pdf

115. See Tai S, Gould M, Smith P, Iliffe S. Promoting physical activity in general practice: Should prescribed exercise be free? J R Soc Med. 1999;92(2):65–7.

116. Penn L, Dombrowski SU, Sniehotta FF, White M. Perspectives of UK Pakistani women on their behaviour change to prevent type 2 diabetes: Qualitative study using the theory domain framework. BMJ Open. 2014;4(7):1–10.

117. Mistry B, Phillips L, Simpson J. Prescription Plus Crawley. The Case for Project Expansion. Crawley; 2017.

118. Steadman K, Thomas R, Donnaloja V. Social prescribing. A pathway to work? [Internet]. 2016. Available from: www.theworkfoundation.com.

119. Price S, Hookway A, King S. Social prescribing evidence map: technical report [Internet]. Cardiff: Public Health Wales NHS Trust; 2017. Available from: http://www2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf/0/d8aba77d02cf471c80258148002ad093/$FILE/Social prescribing summary report v1 GROUPWARE.pdf

120. Impetus Community Navigation. Social prescribing in Brighton & Hove Annual Report. Brighton; 2018.

121. Jones M, Kimberlee R, Deave T. South West Well-being Programme: Final Evaluation

Report. [Internet]. Bristol; 2009. Available from: http://hsc.uwe.ac.uk/net/research/Data/Sites/1/UWE-SWWB-Report-WebVersion.pdf

122. Gidlow C, Johnston LH, Crone D, Morris C, Smith A, Foster C, et al. Socio-demographic patterning of referral, uptake and attendance in Physical Activity Referral Schemes. J Public Health (Bangkok) [Internet]. 2007 Jun 1;29(2):107–13. Available from: http://academic.oup.com/jpubhealth/article/29/2/107/1504411/Sociodemographic-patterning-of-referral-uptake-and

123. Crone D, Johnston L, Grant T. Maintaining quality in exercise referral schemes: a case study of professional practice. Prim Heal Care Res Dev [Internet]. 2004 Apr 1;5(2):96–103. Available from: http://journals.cambridge.org/abstract_S1463423604000131

124. Johnston LH, Warwick J, De Ste Croix M, Crone D, Sldford A. The nature of all "inappropriate referrals" made to a countywide physical activity referral scheme: Implications for practice. Health Educ J [Internet]. 2005 Mar 27;64(1):58–69. Available from: http://journals.sagepub.com/doi/10.1177/001789690506400107

125. Crone D, Johnston LH, Gidlow C, Henley C, James DVB. Uptake and Participation in Physical Activity Referral Schemes in the UK: An Investigation of Patients Referred with Mental Health Problems. Issues Ment Health Nurs [Internet]. 2008 Jan 9;29(10):1088–97. Available from: http://www.tandfonline.com/doi/full/10.1080/01612840802319837

126. Pavey T, Anokye N, Taylor A, Trueman P, Moxham T, Fox K, et al. The clinical effectiveness and cost-effectiveness of exercise referral schemes: a systematic review and economic evaluation. Health Technol Assess (Rockv) [Internet]. 2011 Dec;15(44). Available from: https://www.journalslibrary.nihr.ac.uk/hta/hta15440/

127. Tava'E N, Nosa V. The green prescription programme and the experiences of Pacific women in Auckland. J Prim Health Care. 2012;4(4):313–9.

128. Martin, Woolf-May. The retrospective evaluation of a general practitioner exercise prescription programme. J Hum Nutr Diet [Internet]. 1999 Apr;12(s1):32–42. Available from: http://doi.wiley.com/10.1046/j.1365-277X.1999.00005.x

129. Schmidt M, Absalah S, Nierkens V, Stronks K. Which factors engage women in deprived neighbourhoods to participate in exercise referral schemes? BMC Public Health. 2008;8:1–10.

130. Kimberlee R. What is social prescribing? Adv Soc Sci Res J [Internet]. 2015 Jan 25 [cited 2018 Jun 10];2(1). Available from: http://scholarpublishing.org/index.php/assrj/article/view/808

131. ERS Research and Consultancy. Newcastle Social Prescribing Project. Final Report. Newcastle upon Tyne; 2013.

132. Grayer J, Cape J, Orpwood L, Leibowitz J, Buszewicz M. Facilitating access to voluntary and community services for patients with psychosocial problems: a before-after evaluation. BMC Fam Pract [Internet]. 2008 Dec 7;9(1):27. Available from: http://bmcfampract.biomedcentral.com/articles/10.1186/1471-2296-9-27

133. Friedli L, Themessl-Huber M, Butchart M. Evaluation of dundee equally well sources of support: Social prescribing in Maryfield. Evaluation Report Four. Dundee; 2012.

134. Lowe T, Kimmitt J, Wilson R, Martin M, Gibbon J. The institutional work of creating and implementing Social Impact Bonds. Policy Polit [Internet]. 2019;47(2):353–70. Available from: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062470228&doi=10.1332%2F030557318X15333032765154&partnerID=40&md5=8597533785c71c95771d1704f3dbb195

135. Harlock J. From outcomes-based commissioning to social value? Implications for performance managing the third sector. Birmingham: Third Sector Research Centre; 2014.

136. Fraser A, Tan S, Lagarde M, Mays N. Narratives of Promise, Narratives of Caution: A Review of the Literature on Social Impact Bonds. Soc Policy Adm [Internet]. 2018 Jan;52(1):4–28. Available from: http://doi.wiley.com/10.1111/spol.12260

137. Milbourne L. Remodelling the Third Sector: Advancing Collaboration or Competition in Community-Based Initiatives? J Soc Policy [Internet]. 2009 Apr 1;38(2):277–97. Available from: https://www.cambridge.org/core/product/identifier/S0047279408002845/type/journal_article

138. Aggar C, Thomas T, Gordon C, Bloomfield J, Baker J. Social Prescribing for Individuals Living with Mental Illness in an Australian Community Setting: A Pilot Study. Community Ment Health J [Internet]. 2020 May 13; Available from: http://link.springer.com/10.1007/s10597-020-00631-6

139. Beardmore A. Working in social prescribing services: a qualitative study. J Health Organ Manag [Internet]. 2019 Nov 4;34(1):40–52. Available from: https://www.emerald.com/insight/content/doi/10.1108/JHOM-02-2019-0050/full/html

140. Tierney S, Wong G, Roberts N, Boylan A-M, Park S, Abrams R, et al. Supporting social prescribing in primary care by linking people to local assets: a realist review. BMC Med [Internet]. 2020 Dec 13;18(1):49. Available from: https://bmcmedicine.biomedcentral.com/articles/10.1186/s12916-020-1510-7

141. Kellezi B, Wakefield JRH, Stevenson C, McNamara N, Mair E, Bowe M, et al. The social cure of social prescribing: a mixed-methods study on the benefits of social connectedness on quality and effectiveness of care provision. BMJ Open [Internet]. 2019 Nov 14;9(11):e033137. Available from: http://bmjopen.bmj.com/lookup/doi/10.1136/bmjopen-2019-033137

142. Jensen A, Bonde LO. An Arts on Prescription Programme: Perspectives of the Cultural Institutions. Community Ment Health J [Internet]. 2020 Nov 25;56(8):1473–9. Available from: http://link.springer.com/10.1007/s10597-020-00591-x

143. Wallace C, Elliott M, Thomas S, Davies-McIntosh E, Beese S, Roberts G, et al. Using consensus methods to develop a Social Prescribing Learning Needs Framework for practitioners in Wales. Perspect Public Health [Internet]. 2020 Jan

28;175791391989794. Available from: http://journals.sagepub.com/doi/10.1177/1757913919897946

144. Frostick C, Bertotti M. The frontline of social prescribing – How do we ensure Link Workers can work safely and effectively within primary care? Chronic Illn [Internet]. 2019 Oct 17;174239531988206. Available from: http://journals.sagepub.com/doi/10.1177/1742395319882068

145. Mercer SW, Fitzpatrick B, Grant L, Chng NR, McConnachie A, Bakhshi A, et al. Effectiveness of Community-Links Practitioners in Areas of High Socioeconomic Deprivation. Ann Fam Med [Internet]. 2019 Nov 11;17(6):518–25. Available from: http://www.annfammed.org/lookup/doi/10.1370/afm.2429

146. Payne K, Walton E, Burton C. Steps to benefit from social prescription: a qualitative interview study. Br J Gen Pract [Internet]. 2020 Jan;70(690):e36–44. Available from: http://bjgp.org/lookup/doi/10.3399/bjgp19X706865

147. Wildman JM, Moffatt S, Steer M, Laing K, Penn L, O'brien N. Service-users' perspectives of link worker social prescribing: a qualitative follow-up study.

148. Campbell F, Holmes M, Everson-Hock E. A systematic review and economic evaluation of exercise referral schemes in primary care : : a short report. 2015.

149. Popay J, Kowarzik U, Mallinson S, Mackian S, Barker J. Social problems, primary care and pathways to help and support: addressing health inequalities at the individual level. Part II: lay perspectives. J Epidemiol Community Heal [Internet]. 2007 Nov 1 [cited 2018 Jun 10];61(11):972–7. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2465599/pdf/966.pdf

150. Heijnders ML, Meijs JJ. "Welzijn op Recept" (Social Prescribing): a helping hand in re-establishing social contacts - an explorative qualitative study. Prim Heal Care Res Dev. 2018;19(3):223–31.

151. Social prescribing: a model for partnership working between primary care and the voluntary sector [Internet]. Leeds : Age Concern Yorkshire & Humber; Available from: file:///Users/sarakalde/Downloads/Social_Prescribing_Report.pdf

152. Alderwick HAJ, Gottlieb LM, Fichtenberg CM, Adler NE. Social Prescribing in the U.S. and England: Emerging Interventions to Address Patients' Social Needs. Am J Prev Med [Internet]. 2018 May;54(5):715–8. Available from: http://dx.doi.org/10.1016/j.amepre.2018.01.039