

RECREATION THERAPY FOR VULNERABLE SOCIALY ISOLATED ADULTS

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QUESTION

What recreation groups for vulnerable community-dwelling adults (18-65) have an evidence base?

PURPOSE

Strategy or to inform unit-level practice change.

RESULTS

ONLINE RESOURCES (GREY LITERATURE)

Victorian Department of Health. (2023). **Local Connections – A Social Prescribing Initiative.** [Link](#)

- To support people to engage in non-clinical community-based activities, such as art, creative, nature or other groups and activities, to reduce loneliness and social isolation.
- As part of a trial, link workers employed by 6 Local Services will support people (26+) to engage in local community-based activities.

National Disability Insurance Scheme. (2022). **Social and Recreation Support.** [Link](#)

- This document offers NDIS clients information about accessing social and recreation support.

National Academy for Social Prescribing. (n.d). **Social Prescribing Around the World.** [Link](#)

- Provides an overview of how social prescribing is being practiced in 24 countries around the world. Different health system contexts call for adaptability.

PEER-REVIEWED LITERATURE – MOST RECENT FIRST

Articles are grouped by theme:

- Review articles evaluating multiple interventions
- Peer support groups
- Nature-based interventions
- Group rehabilitation & group therapy
- Virtual support groups
- Social prescribing
- Community hubs

Each article summary contains excerpts from the abstract and an online link.

REVIEW ARTICLES EVALUATING MULTIPLE INTERVENTIONS

N. Hagani, et al. (2023). **Health Care Utilization Following Interventions to Improve Social Well-Being: A Systematic Review and Meta-analysis.** *JAMA Network Open*, 6(6), E2321019. [Full-text](#)

Objective(s): To systematically review and meta-analyze available evidence on the associations between psychosocial interventions and health care utilization. The outcome of interest was health care utilization, including primary, emergency, inpatient, and outpatient care services. Social well-being was measured as social support, social participation, social relationships, community support, social integration, or loneliness. Result(s): A total of 41 studies were retrieved from 18969 citations; 37 studies were eligible for meta-analysis. Data were analyzed for 7842 participants, including 2745 older adults, 1579 young women considered to be at risk of social and mental health disadvantages, 1118 people with chronic illnesses, 1597 people with mental illnesses, and 803 caregivers. The odds ratio (OR) random-effects model showed an overall reduction in health care use (OR, 0.75; 95% CI, 0.59 to 0.97), but the standardized mean difference (SMD) random effect model showed no association. An improvement in health care utilization was observed in association with social support interventions (SMD, 0.25; 95% CI, 0.04 to 0.45) but not in loneliness interventions.

R. Leeson, et al. (2023). **Interventions that aim to increase social participation through recreation or leisure activity for adults with moderate to severe traumatic brain injury: a scoping review.** *Disability and Rehabilitation*. [Full text](#)

Social isolation and reduced social participation are common after traumatic brain injury (TBI). Developing interventions that aim to increase social participation through recreation or leisure activities continues to be challenging. This scoping review was conducted to provide an overview of interventions used to increase social participation through in-person recreation or leisure activity for adults with moderate to severe TBI living in the community. Results: Seven papers were included in the final review. Studies varied with respect to the type of intervention and program outcomes. The interpretation was impeded by study quality, with only two studies providing higher levels of evidence. Barriers and facilitators to successful program outcomes were identified. Conclusions: Few studies with interventions focused on increasing social participation in leisure or recreation activity were identified. Further research incorporating mixed methods and longitudinal design to evaluate effectiveness over time is needed to build the evidence base for increasing social participation through leisure activity.

M. Olano-Lizarraga, et al. (2023). **Interventions on the social dimension of people with chronic heart failure: a systematic review of randomized controlled trials.** *European journal of cardiovascular nursing*, 22(2), 113-125. [Full-text](#)

AIMS: The symptom burden of patients with chronic heart failure (CHF), together with social determinants and psychosocial factors, results in limitations to maintain adequate social life and roles, participate in social events and maintain relationships. This situation's impact on health outcomes makes it of utmost importance to develop meaningful social networks for these patients. The primary objective aimed to identify randomized controlled trials that impact the social dimension of people with CHF. The secondary objectives were to analyze the methodological quality of these interventions, establish their components, and synthesize their results. Eight randomized controlled trials were identified, among which two were at 'high risk of bias.' Interventions were synthesized according to the following categories: delivery format, providers and recipients, and the intervention content domains. Half of the studies showed statistical superiority in improving the intervention group's social support in people with CHF. CONCLUSION(S): This review has highlighted the scarcity of interventions targeting the social dimension of people with CHF. Interventions have been heterogeneous, which limits the statistical combination of studies.

PEER SUPPORT GROUPS

D. M. Thompson, et al. (2022). **Peer support for people with chronic conditions: a systematic review of reviews.** *BMC health services research*, 22(1), 427. [Full-text](#)

Peer support is a socially driven intervention involving people with lived experience of a condition helping others to manage the same condition, potentially offering a sense of connectedness and purpose, and experiential knowledge to manage disease. However, it is unclear what outcomes are important to patients across the spectrum of chronic conditions, what works and for whom. The aims of this review were to (1) collate peer support intervention components, (2) collate the outcome domains used to evaluate peer support, (3) synthesise evidence of effectiveness, and (4) identify the mechanisms of effect, for people with chronic conditions. RESULT(S): The search identified 6222 unique publications. Thirty-one publications were eligible for inclusion. Components of peer support were organised into nine categories: social support, psychological support, practical support, empowerment, condition monitoring and treatment adherence, informational support, behavioural change, encouragement and motivation, and physical training. Fifty-five outcome domains were identified. Quality of life, and self-efficacy were the most measured outcome domains identified. Most reviews reported positive but non-significant effects.

N. Wells, et al. (2022). **Belonging, social connection and non-clinical care: Experiences of HIV peer support among recently diagnosed people living with HIV in Australia.** *Health & social care in the community*, 30(6), e4793-e4801. [Request article](#)

HIV peer support programs have assisted people living with HIV (PLHIV) in navigating the clinical, emotional and social aspects of living with HIV. We draw on semi-structured interviews with 26 recently diagnosed PLHIV in Australia to explore experiences of HIV peer support services. Our thematic analysis identified three overarching themes. First, participants commonly reported that peer support programs offered a sense of belonging and connection to a broader HIV community. This established a network, sometimes separate to their existing social networks, of other PLHIV with whom to share experiences of HIV. Second, peer-based programs provided an opportunity for participants to hear firsthand, non-clinical perspectives on living with HIV. While participants valued the clinical care they received, the perspectives of peers gave participants insights into how others had managed aspects of living with HIV such as disclosure, sex and relationships. Finally, participants highlighted important considerations around ensuring referrals were made to socially and culturally appropriate support programs.

L. Stafford, et al. (2021). **Isolation experienced by women with gestational cancer: could peer support and tailored information be the answer?** *Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer*, 29(12), 7135-7138. [Full-text](#)

This commentary describes our work exploring the psychological needs of women diagnosed with gestational cancer, areas of unmet need we identified, and our recommendations for future programs and research. We conducted in-depth, semi-structured interviews with 23 Australian women diagnosed with gestational cancer in the preceding 5 years. Our findings depicted a group of women for whom cancer diagnosis and treatment had resulted in a sense of isolation and loneliness. Women reported seeking tailored information about their condition and treatments as well as one-on-one peer support with other gestational cancer survivors, which was challenging for them to access and which existing services struggled to provide. Technology has the potential to connect and match women with one-to-one peer support, and research exploring the efficacy and acceptability of such interventions is required. Creative solutions, such as virtual resource hubs monitored or moderated by experts, would potentially meet the information needs of this group.

A. Henteleff, et al. (2018). **The HANS KAI Project: a community-based approach to improving health and well-being through peer support.** *Le projet HANS KAI : une approche communautaire visant à améliorer la santé et le bien-être grâce au soutien par les pairs.*, 38(3), 135-146. [Full-text](#)

HANS KAI is a unique health promotion intervention to improve participants' health by focussing on interrelated chronic disease prevention behaviours through peer support and strengthening of social support networks. The study objective was to determine the effectiveness of HANS KAI in an urban Canadian setting. **METHODS:** We used a mixed methods intervention research design that involved multiple sites from November 2010 to April 2015. Data was obtained from participant surveys as well as in-person interviews at zero, 6, 12 and 24 months. Participants met in groups at least once a month during the research period, to self-monitor health indicators, prepare and share a healthy snack, participate in a physical activity, set a healthy lifestyle goal (optional) and socialize. **RESULTS:** There were statistically significant mental health improvements from pre- to post-program, and 66% of the participants described specific behaviour changes as a result of HANS KAI participation. Additional positive health impacts included peer support; acquiring specific health knowledge; inspiration, motivation or accountability; the empowering effect of monitoring one's own health indicators; overcoming social isolation and knowing how to better access services.

H. M. Lauckner, et al. (2016). **Peer support for people with chronic conditions in rural areas: A scoping review.** *Rural and Remote Health*, 16(1), 3601. [Full-text](#)

In order to inform the development of peer supports in the authors' local context in rural eastern Canada, a scoping review was undertaken to discover community-based peer support initiatives for adults in rural settings living with chronic conditions. Thirteen articles representing 10 separate programs were included and analyzed using qualitative content analysis. Included programs were from the USA, Australia and Canada. A range of formats (telecommunications only, in-person meetings only, or a combination of both) were used. Peer leaders had varied experiences with chronic conditions and received training in content and facilitation skills. Peer leaders were provided with ongoing support. Program participants received training on chronic conditions, and programs provided opportunities for social support and the development of new skills. Programs focused on creating social connections, reducing stigma, ensuring relevance and promoting empowerment. Of the nine programs that reported outcomes, eight reported positive outcomes and one reported mixed results.

S. Castelein, et al. (2015). **Creating a Supportive Environment: Peer Support Groups for Psychotic Disorders.** *Schizophrenia bulletin*, 41(6). [Full-text](#)

People with psychotic disorders frequently experience significant mental and social limitations that may result in persisting social isolation. Research has shown that a supportive social environment is crucial for the process of personal recovery. Peer support groups can provide an opportunity to reduce isolation and enhance the process of personal recovery. It encourages people to express their thoughts, feelings, and personal concerns in a peer-to-peer learning environment. Although the importance of peer support groups for various chronic diseases is widely acknowledged, they do not generally form part of routine care for people with psychotic disorders. The evidence base is promising, but the field could benefit from more rigorous, pragmatic trials with follow-up measurements to establish a solid evidence-base. This article briefly reviews the literature and discusses the barriers to implementation of a peer-support learning environment in routine care, as well as ways to overcome these.

NATURE-BASED INTERVENTIONS

C. Wood, et al. (2023). **Green spaces for mental disorders**. *Current opinion in psychiatry*, 36(1), 41-46. [Full-text](#)

Mental illness is a global challenge, exacerbated by the coronavirus pandemic. Research suggests access to local green spaces is associated with better mental health, yet access is not always equitable. Evaluation of how nature-based interventions protect and support mental health is therefore required. **RECENT FINDINGS:** Accessible local green spaces are associated with better mental health. They encourage active behaviours and social interaction, reduce loneliness and stress. Green views from the home are associated with increased self-esteem, life satisfaction and happiness and reduced depression, anxiety and loneliness. Nature-based interventions and green social prescriptions effectively target vulnerable groups, resulting in significant reductions in depression, anxiety and anger alongside positive mental health outcomes. **SUMMARY:** Although existing evidence is encouraging, robust, high-quality research that strengthens the evidence base and informs future clinical practice and policy decision making is needed.

C. A. Joseph, et al. (2023). **"Something Fun to Look Forward to": Lessons From Implementing the Prescription for Health Farmers' Market Initiative in Rural Upper Michigan**. *Health promotion practice*, 24(5), 903-910. [Request article](#)

Fruit and vegetable (FV) prescription programs are an increasingly popular community-based approach to addressing food insecurity and improving nutrition by connecting local health care and food systems. The Prescription for Health farmers' market FV prescription program was piloted in a rural, low-access low-income Michigan community in 2017. The program enrolled 33 adult participants with chronic disease and provided weekly farmers' market FV vouchers, educational nutrition handouts, and seasonal healthy recipes over 10 weeks. Weight, blood pressure, and the following self-rated variables were assessed pre- and post program: dietary habits, food literacy, physical health, and mental health. While most metrics remained generally unchanged, one of the strongest findings from our data included significant improvement in quality of life. Increased social interaction as a result of the attending the farmers' market was a prominent theme from informal open-ended participant feedback.

L. J. Thomson, et al. (2020). **Art, nature and mental health: assessing the biopsychosocial effects of a 'creative green prescription' museum programme involving horticulture, artmaking and collections**. *Perspectives in public health*, 140(5), 277-285. [Full-text](#)

AIMS: To assess the biopsychosocial effects of participation in a unique, combined arts- and nature-based museum intervention, involving engagement with horticulture, artmaking and museum collections, on adult mental health service users. **METHODS:** Adult mental health service users (total n = 46 across two phases) with an average age of 53 were referred through social prescribing by community partners (mental health nurse and via a day centre for disadvantaged and vulnerable adults) to a 10-week 'creative green prescription' programme held in Whitworth Park and the Whitworth Art Gallery. **RESULTS:** Inductive thematic analysis of Phase 1 interview data revealed increased feelings of wellbeing brought about by improved self-esteem, decreased social isolation and the formation of communities of practice. Statistical analysis of pre-post quantitative measures in Phase 2 found a highly significant increase in psychological wellbeing. **CONCLUSION:** Creative green prescription programmes, using a combination of arts- and nature-based activities, present distinct synergistic benefits that have the potential to make a significant impact on the psychosocial wellbeing of adult mental health service users.

GROUP REHABILITATION & GROUP THERAPY

E. Tumilty, et al. (2020). **'A balancing act'. Living with severe chronic obstructive pulmonary disease in Southern New Zealand: A qualitative study.** *Journal of Primary Health Care*, 12(2), 166-172. [Full-text](#)

AIM: To understand how patients with severe COPD living in the Southern Health Region (Otago and Southland) experience and cope with the condition. METHOD(S): Semi-structured interviews were undertaken with 23 patients with severe COPD. A thematic analysis was conducted. RESULT(S): Patients' accounts of living with severe COPD revealed four themes: Loss, adaptation, isolation and social support. ...Isolation was described in two ways-direct (no longer being able to easily socialize because activities often caused breathlessness) and indirect (the feeling of being isolated from others because they do not understand what it is like to live with COPD). Social support, including support provided by group-based pulmonary rehabilitation, helped to address the problems of social isolation.

B. P. Van Dyke. (2019). **Longitudinal social support and quality of life among participants of psychosocial chronic pain management groups.** *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 80(2-B(E)). [Full-text](#)

The primary goal of the current study was to characterize perceived social support (PSS) and isolation longitudinally among people with chronic pain (CP) who were and were not receiving group psychosocial interventions for CP. The second goal of the study was to describe how PSS and isolation variables are associated with quality-of-life (QOL) variables over time for those same participants. Method: Social health and QOL data from 290 participants from the Learning About My Pain study (Eyer & Thorn, 2015) were used to examine longitudinal PSS and isolation with piecewise linear growth models using multilevel modeling. Participants were randomly assigned to participate in group cognitive-behavioral therapy (CBT), group pain psychoeducation (EDU), or medical treatment-as-usual (TAU) for 10 weeks followed by a 6-month post-treatment follow-up period. Conclusions: A potential benefit of participating in psychosocial group treatments for CP appears to be the lack of deterioration of emotional and informational support for CBT and EDU and decreasing isolation for EDU participants. Social health was predictive of QOL. Future research and treatment of CP should account for PSS and isolation and the ways in which they interact with pain and QOL.

R. Jones, et al. (2018). **Does pulmonary rehabilitation alter patients' experiences of living with chronic respiratory disease? A qualitative study.** *International Journal of COPD*, 13(2375-2385). [Full-text](#)

Chronic respiratory disease (CRD) including COPD carries high and rising morbidity and mortality in Africa, but there are few available treatments. Pulmonary rehabilitation (PR) is a non-pharmacological treatment with proven benefits in improving symptoms and exercise capacity, which has not been tested in Africa. We aimed to evaluate the lived experience of people with CRD, including physical and psychosocial impacts, and how these are addressed by PR. Patients and Methods: A team of respiratory specialists, nurses, and physiotherapists implemented PR to meet the clinical and cultural setting. PR consisted of a 6-week, twice-weekly program of exercise and self-management education. Forty-two patients were recruited. Result(s): Patients who were debilitated by their condition before PR reported that PR addressed all their major concerns. It was reported that breathlessness, pain, immobility, weight loss, and other CRD-related symptoms were reduced, and social and intimate relationships were improved. Conclusion(s): PR has the potential to restore the physical, mental, and social functioning in patients with CRD, whereas medication has much more narrow effects. PR offers a major new option for treatment of a neglected group of patients.

VIRTUAL SUPPORT GROUPS

A. Banbury, et al. (2018). **Telehealth Interventions Delivering Home-based Support Group Videoconferencing: Systematic Review.** *Journal of medical Internet research*, 20(2), e25. [Full-text](#)

Group therapy and education and support sessions are used within health care across a range of disciplines such as chronic disease self-management and psychotherapy interventions. However, there are barriers that constrain group attendance, such as mobility, time, and distance. Using videoconferencing may overcome known barriers and improve the accessibility of group-based interventions. OBJECTIVE(S): The aim of this study was to review the literature to determine the feasibility, acceptability, effectiveness, and implementation of health professional-led group videoconferencing to provide education or social support or both, into the home setting.

CONCLUSION(S): Groups delivered by videoconference are feasible and potentially can improve the accessibility of group interventions. This may be particularly useful for those who live in rural areas, have limited mobility, are socially isolated, or fear meeting new people. Outcomes are similar to in-person groups, but future research on facilitation process in videoconferencing-mediated groups and large-scale studies are required to develop the evidence base.

SOCIAL PRESCRIBING

B. Kiely, et al. (2022). **Effect of social prescribing link workers on health outcomes and costs for adults in primary care and community settings: a systematic review.** *BMJ Open*, 12(10), e062951. [Full-text](#)

Objectives: To establish the evidence base for the effects on health outcomes and costs of social prescribing link workers (non-health or social care professionals who connect people to community resources) for people in community settings focusing on people experiencing multimorbidity and social deprivation. Result:s Eight studies (n=6500 participants), with five randomised controlled trials at low risk of bias and three controlled before-after studies at high risk of bias, were included. Four included participants experiencing multimorbidity and social deprivation. Four (n=2186) reported no impact on health-related quality of life (HRQoL). Four (n=1924) reported mental health outcomes with three reporting no impact. Two US studies found improved ratings of high-quality care and reduced hospitalisations for people with multimorbidity experiencing deprivation. No cost-effectiveness analyses were identified. The certainty of the evidence was low or very low.

Conclusions: There is an absence of evidence for social prescribing link workers. Policymakers should note this and support evaluation of current programmes before mainstreaming.

S. Bhatti, et al. (2021). **Using self-determination theory to understand the social prescribing process: a qualitative study.** *BJGP Open*, 5(2), 1-10. [Full-text](#)

Social prescribing (SP) assists patients to engage in social activities and connect to community supports as part of a holistic approach to primary care. Rx: Community was a SP project, which was implemented within 11 community health centres (CHCs) situated across Ontario, Canada. Aim(s): To explore how SP as a process facilitates positive outcomes for patients. Design & setting: Qualitative methods were used. Result(s): Participants who had received social prescriptions described SP as an empathetic process that respects their needs and interests. SP facilitated the patient's voice in their care, helped patients to develop skills in addressing needs important to them, and fostered trusting relationships with staff and other participants. Patients reported their social support networks were expanded, and they had improved mental health and ability in self-management of chronic conditions.

B. Kellezi, et al. (2019). **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*, 9(11), e033137.

[Full-text](#)

This study aimed to assess the degree to which the 'social cure' model of psychosocial health captures the understandings and experiences of healthcare staff and patients in a social prescribing (SP) pathway and the degree to which these psychosocial processes predict the effect of the pathway on healthcare usage. DESIGN: Mixed-methods: Study 1: semistructured interviews; study 2: longitudinal survey. SETTING: An English SP pathway delivered between 2017 and 2019., PARTICIPANTS: Study 1: general practitioners (GPs) (n=7), healthcare providers (n=9) and service users (n=19). Study 2: 630 patients engaging with SP pathway at a 4-month follow-up after initial referral assessment. INTERVENTION: Chronically ill patients experiencing loneliness referred onto SP pathway and meeting with a health coach and/or link worker, with possible further referral to existing or newly created relevant third-sector groups. RESULTS: Patients valued the different social relationships they created through the SP pathway, including those with link workers, groups and community. Group memberships quantitatively predicted primary care usage, and this was mediated by increases in community belonging and reduced loneliness.

S. Moffatt, et al. (2017). **Link Worker social prescribing to improve health and well-being for people with long-term conditions: Qualitative study of service user perceptions.** *BMJ Open*, 7(7), e015203.

[Full-text](#)

Objectives: To describe the experiences of patients with long-term conditions who are referred to and engage with a Link Worker social prescribing programme and identify the impact of the Link Worker programme on health and well-being. Design: Qualitative study using semistructured interviews with thematic analysis of the data. Intervention: Link Worker social prescribing programme comprising personalised support to identify meaningful health and wellness goals, ongoing support to achieve agreed objectives and linkage into appropriate community services. Setting: Inner-city area in West Newcastle upon Tyne, UK. Participants: Thirty adults with long-term conditions, 14 female, 16 male aged 40-74 years, mean age 62 years, 24 white British, 1 white Irish, 5 from black and minority ethnic communities. Results: The intervention engendered feelings of control and self-confidence, reduced social isolation and had a positive impact on health-related behaviours including weight loss, healthier eating and increased physical activity. Management of long-term conditions and mental health in the face of multimorbidity improved and participants reported greater resilience and more effective problem-solving strategies.

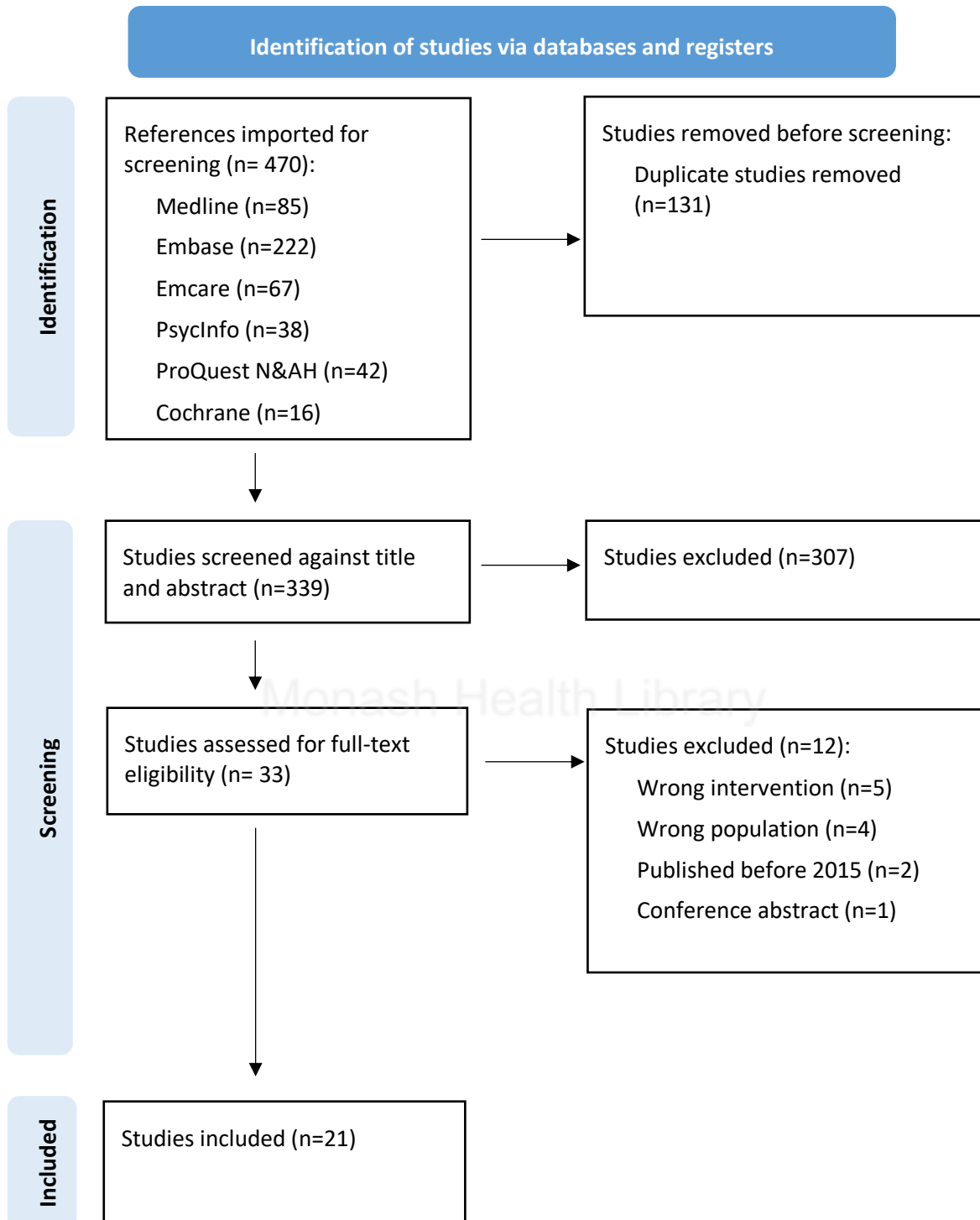
COMMUNITY HUBS

C. Jones, et al. (2020). **Social Return on Investment Analysis of the Health Precinct Community Hub for Chronic Conditions.** *International journal of environmental research and public health*, 17(14).

[Full-text](#)

The Health Precinct is a community hub in North Wales that people with chronic conditions are referred to through social prescribing. To improve community-based assets there is a need to understand and evidence the social value they generate. Social Return on Investment (SROI) analysis was used to evaluate the Health Precinct. Stakeholders included participants aged 55+, participants' families, staff, the National Health Service and local government. Participants' health and well-being data were collected upon referral and four months later using the EQ-5D-5L, Campaign to End Loneliness Scale and the Rosenberg Self-Esteem Scale. Baseline data were collected for 159 participants. Follow-up data were available for 66 participants and 38 family members. The value of inputs was 55,389 (attendance fees, staffing, equipment, overheads), and the value of resulting benefits was 281,010; leading to a base case SROI ratio of 5.07 of social value generated for every 1 invested. Sensitivity analysis yielded estimates of between 2.60:1 and 5.16:1.

PRISMA CHART



This report contains curated literature results against a unique set of criteria at a particular point in time. Users of this service are responsible for independently appraising the quality, reliability, and applicability of the evidence cited. We strongly recommend consulting the original sources and seeking further expert advice.

APPENDIX

SEARCH METHODOLOGY

A systematic search was conducted for literature. The results were screened by librarians using [Covidence](#).

SEARCH LIMITS

- English-language
- Published within the last 8 years

DATABASES SEARCHED

- Medline – index of peer reviewed articles across health sciences and medicine.
- Embase – index of biomed and pharmacological peer reviewed journal articles.
- Emcare – index of nursing, allied health, critical-care medicine and more.
- Cochrane Library – collection of databases containing high-quality independent evidence.
- ProQuest Nursing & Allied Health – scholarly journals, theses, and books for nursing & AH.
- Grey literature – Google, Google Scholar, Trip database, Biomed Central Proceedings.

ADDITIONAL SEARCHING

- Handsearching was undertaken within the [Therapeutic Recreation Journal](#)

MEDLINE SEARCH STRATEGY

Ovid MEDLINE(R) ALL <1946 to September 29, 2023>

- | | | |
|----|--------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1 | Recreation Therapy/ | 143 |
| 2 | (recreation* adj1 (therap* or group*)).mp. | 608 |
| 3 | (Social Support/ or Community Support/) and (therap* or group* or program* or service* or intervention*).ti,ab,kf. | 41808 |
| 4 | Social Group/ and (therap* or program* or service* or intervention*).ti,ab,kf. | 39 |
| 5 | (social* support* adj (group* or activit* or program* or service* or intervention*)).ti,ab,kf. | 1130 |
| 6 | (social group* adj3 (program* or service* or intervention* or activit*)).ti,ab,kf. | 146 |
| 7 | 1 or 2 or 3 or 4 or 5 or 6 | 43145 |
| 8 | Vulnerable Populations/ or "Health Disparate, Minority and Vulnerable Populations"/ | 12876 |
| 9 | (vulnerab* adj3 (adult* or patient* or people* or person* or m?n or wom?n or individual* or population* or group* or communit*)).ti,ab,kf. | 53859 |
| 10 | 8 or 9 | 62957 |
| 11 | exp Chronic Disease/ | 625251 |
| 12 | (chronic* adj3 (condition* or ill* or unwell* or medical* or disease*)).mp. | 672563 |

- 13 11 or 12 911316
- 14 10 or 13 970286
- 15 Social Isolation/ or Ostracism/ or Social Marginalization/ or Loneliness/ 21898
- 16 (social* adj3 (isolat* or exclusion or exclude*)).mp. 29604
- 17 (lonely or loneliness).mp. 14743
- 18 15 or 16 or 17 41901
- 19 Cost-Effectiveness Analysis/ or "Outcome and Process Assessment, Health Care"/ or Outcome Assessment, Health Care/ or Patient Outcome Assessment/ or Process Assessment, Health Care/ or exp Treatment Outcome/ or Evaluation Study/ or Patient Reported Outcome Measures/ 1603730
- 20 ((therap* or group* or program* or service* or intervention*) adj5 (effective* or efficac* or outcome* or evaluat* or success* or benef*)).ti,ab,kf. 1047384
- 21 19 or 20 2466158
- 22 (Depression/ or Mental Health/ or Social Inclusion/ or Community Participation/ or Independent Living/ or Social Participation/) and (reduc* or decreas* or lower* or higher or increas* or improv* or worse* or better or chang*).ti,ab. 143151
- 23 ((lonely or loneliness) adj3 (reduc* or decreas* or increas* or improve* or worse* or better or change*)).ti,ab. 2071
- 24 ((reduc* or decreas* or lower* or increas* or improv* or worse* or better or chang*) adj5 (isolat* or inclusion or independen* or depression or mental health or wellbeing or well-being or engag* or participat* or psych* or social*)).mp. 504578
- 25 ((communit* or social) adj (participat* or engag*)).mp. 36311
- 26 (participat* in adj2 (communit* or social*)).mp. 7244
- 27 22 or 23 or 24 or 25 or 26 620883
- 28 21 or 27 2984133
- 29 7 and 14 and 18 and 28 154
- 30 limit 29 to (english language and yr="2015 -Current") 76