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Characteristics of programmes designed to link community-dwelling older adults in high-income countries from community to clinical sectors: a scoping review protocol

Miriam Gofine,1,2 Gregory Laynor,3 Antoinette Schoenthaler1,4

ABSTRACT

Introduction Research on effectively navigating older adults into primary care is urgently needed. Community–clinic linkage models (CCLMs) aim to improve population health by linking the health and community sectors in order to improve patients’ access to healthcare and, ultimately, population health. However, research on community-based points of entry linking adults with untreated medical needs into the healthcare sector is nascent. CCLMs implemented for the general adult population are not necessarily accessible to older adults. Given the recency of the CCLM literature and the seeming rarity of CCLM interventions designed for older adults, it is appropriate to employ scoping review methodology in order to generate a comprehensive review of the available information on this topic. This protocol will inform a scoping review that reviews characteristics of community-based programmes that link older adults with the healthcare sector.

Methods and analysis The present protocol was developed as per JBI Evidence Synthesis best practice guidance and reporting items for the development of scoping review protocols. The proposed scoping review will follow Levac and colleagues’ update to Arksey and O’Malley’s scoping review methodology. Healthcare access at the system and individual levels will be operationalised in data extraction and analysis in accordance with Levesque and colleagues’ Conceptual Framework of Access to Health. The protocol complies with Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for scoping reviews. Beginning in August 2023 or later, citation databases (AgeLine (Ebsco); CINAHL Complete; MEDLINE (PubMed); Scopus Advanced (Elsevier); Social Services Abstracts (ProQuest); Web of Science Core Collection (Clarivate)) and grey literature (Google; American Public Health Association Annual Meeting Conference Proceedings; SIREN Evidence & Resource Library) will be searched.

Ethics and dissemination The authors plan to disseminate their findings in conference proceedings and publication in a peer-reviewed journal and deposit extracted data in the Figshare repository. The study does not require Institutional Review Board approval.

Registration details Protocol registered in Open Science Framework (DOI https://doi.org/10.17605/OSF.IO/2EF9D).

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This review will employ Levac and colleagues’ updated scoping review methodology to obtain and analyse data from nine comprehensive databases of published and grey literature.
⇒ A knowledge user will be invited to participate in development and analysis of study materials.
⇒ The search strategy may unintentionally omit appropriate publications because terms referring to the target population and to community–clinic linkage models are not standardised within and between academic and applied settings.
⇒ Programmes not (yet) described in the published literature, targeted conference abstracts or elsewhere online may be missed.

INTRODUCTION

Older adults are an essential focus of population health research given the rapidly changing demography of age distribution across the USA and the globe.1 There is an urgent need to address this population’s health needs, particularly among historically marginalised populations.2 3 Older adults frequently have multiple chronic conditions,4 the management of which should be by a primary care provider.4 However, older adults in the USA report challenges in establishing a first point of contact with primary care3 or actually seeing the primary care provider to which they are administratively assigned.6 Many instead turn to emergency departments for care, which is expensive and inefficient.7 The Department of Health and Human Services mandates that healthcare systems should aim to increase the proportion of people who have access to primary care, a Health People 2030 goal.8 Thus, research on effectively navigating older adults into primary care is urgently needed.9
Linkage of community resources with the healthcare system is essential for effective management of chronic conditions. Responding to this mandate, community-clinic linkage models (CCLMs) aim to improve population health through ‘partnerships to help connect healthcare providers, community organisations and public health agencies so that they can improve patients’ access to preventive care, chronic care and social services’. Given that older adults are more likely to have multiple chronic conditions, report challenges in establishing a first point of contact with primary care, and highly likely to affiliate with the community sector, focusing attention on community-clinic linkages for older adults, are highly worthwhile. Creating CCLMs that are accessible to older adults by enabling independent selection of healthcare services, effectively conveying information about these services and navigating the healthcare system is an essential component of making person-centred community-based healthcare accessible to older adults.

Despite this, while the literature on navigating patients through the healthcare system is robust, research on community-based points of entry into the healthcare sector for adults with untreated medical needs is nascent. Illustrating this point, multiple reviews of best practices in patient navigation programmes for older adults and their care partners synthesise the literature. However, these programmes are typically delivered in the healthcare setting, such as in the primary care office or at points of transition of care, such as hospital discharge. Collectively, the reach of these interventions is limited to target populations that are already situated within the healthcare system. Similarly, in a scoping review of primary care-based navigation models, none of the 5 papers (out of 34 total papers reviewed) that focus on older adult populations deal with navigating patients into the healthcare sector; all present navigation models are for those who already established an initial point of contact within the system. Likewise, none of the 20 interventions identified in a 2018 scoping review of patient navigators facilitating access to primary care were targeted at older adult populations. A 2023 systematic review of the effectiveness of system navigation programmes linking primary care with community-based health and social services for older adults restricts its analysis to programmes that are initiated in the primary care setting. Given the challenges that older adults experience in entering the healthcare system to receive primary care, this is an alarming gap in the literature.

Further, given the unique characteristics of older adult populations, CCLMs implemented for the general adult population are not necessarily accessible to older adults. Interventions targeted to older adults must consider their accessibility in light of older adults’ uniquely complex physical and mental health needs, ageing-related changes in sensory, cognitive, physical or mobility capacities, and involvement of care partners in both activities of daily living and navigation through the healthcare system. Further, CCLMs intended for an audience of all ages may be publicised or convey information in electronic formats that are inaccessible to older adults due to generational disparities in digital fluency. This concern may be especially prevalent among older adults who identify with historically marginalised communities, the very same population that is more likely than more privileged groups to have untreated health concerns and thus be targeted by CCLM interventions. Finally, social isolation is associated with chronic disease and is disproportionately prevalent among older adults.

The objective of this scoping review is to identify characteristics of community-based models of linking older adults with the healthcare setting. In order to comprehensively survey CCLMs designed for community-dwelling older adults, the scoping review will aim to identify and present the available information regarding models explicitly designed to link community-dwelling older adults from the community sector to the clinical sector; linkages from the clinical sector to the community sector are not its focus. To the authors’ knowledge, there are no existing scoping or systematic reviews on this topic. This scoping review aims to answer the research question, ‘What are the characteristics of programmes that are designed to facilitate community-dwelling older adults’ access to healthcare through community sector-based linkages?’

Access to the healthcare system is conceptualised using Levesque and colleagues’ conceptual framework of patient-centred access to healthcare. This framework defines ‘access’ as ‘the opportunity to have healthcare needs fulfilled’ and operationalises accessibility using five domains at the healthcare system-level (approachability, acceptability, availability and accommodation, affordability, and appropriateness) and five domains of individual-level abilities (to perceive, seek, reach, pay and engage) in interaction with the system.

Given the recency of the CCLM literature and the seeming rarity of CCLM interventions designed for older adults, it is appropriate to employ scoping review methodology in order to generate a comprehensive review of the available information on this topic. The results of this review contribute conceptual clarification of CCLM within the academic literature and could be used to inform the focus of future CCLM research, practice and innovation.

METHODS AND ANALYSIS

The present protocol was developed as per JBI Evidence Synthesis best practice guidance and reporting items for the development of scoping review protocols. The proposed scoping review will follow Levac and colleagues’ update to Arksey and O’Malley’s methodology/framework for scoping reviews. Where appropriate, the protocol complies with Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for scoping reviews (PRISMA-ScR).
Eligibility criteria

The protocol’s eligibility criteria are summarised in table 1.

Participants

This scoping review includes documents where ‘older adults’ are the target population of a programme intended to create a linkage from the community to the health sectors. Documents that describe programmes that additionally target other age demographics (eg, adolescents or adults aged 18–64 years) will be included as long as older adults are targeted as a distinct demographic in programme design and delivery as per the study’s inclusion criteria in table 1. Programmes that include older adults among all adults will be excluded as per the study’s exclusion criteria in table 1.

In recognition of the heterogeneity of quantitative age cut-offs used to define ‘older adults’ (eg, variation around ages 50, 55, 60, 65 years), this scoping review will rely on authors’ description of the target population to identify ‘older adults’. Thus, any reference to older adults using this or synonymous terms (such as elderly, geriatric, aged, etc) in the title or abstract will be sufficient for eligibility (see the Search Strategy section below for more on selection of these terms). Further, an intervention that explicitly targets ‘older adults’ (or a synonymous term) but uses a chronological age below age 65 years to define the population (eg, age 50+ years) will be included for review. In the event that a document exclusively uses a chronological age cut-off to define its target population but does not describe the population using a term listed above, interventions that target populations aged 65 years and older will be eligible for inclusion.

Concept

This review aims to identify and present the available information regarding programmes explicitly designed to link community-dwelling older adults from the community sector to the clinical sector; linkages from the clinical sector to the community sector are excluded.

The Centers for Disease Control and Prevention’s definitions of the community and clinical sectors are used in this review. The community sector refers to ‘organisations that provide services, programmes or resources to community members in non-healthcare settings. Examples include: community pharmacies (as opposed to a pharmacy in a healthcare setting, such as a hospital), employers, prisons and jails, faith-based organisations, barbershops, community centres (eg, senior centres), volunteer organisations (eg, American Heart Association and non-profit organisations (eg, YMCAs) (social services agencies are excluded from this category). The clinical sector is defined as ‘organisations that provide services, programmes or resources directly related to medical diagnoses or treatment of community members by healthcare workers (eg, physicians, nurses, nursing assistants, physical therapists, emergency medical service personnel, dentists, pharmacists, laboratory personnel) in healthcare settings’.

Linkage programmes that are physically located in a clinical setting but are not administered through the clinical sector and do not require participants to be registered as patients in the clinical host setting would not be excluded on the basis of setting. For example, a community-based programme administered by the local public health authority that rents office space located in a primary care office but recruits participants across community settings would not be excluded from the review on the basis of being housed in a clinical setting.

Table 1 Summary of inclusion/exclusion criteria, by participants, concept and context

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participants</strong></td>
<td>‘Older adults’ (or synonymous term such as elderly, aged, geriatric, etc) in definition of the target population in the title or abstract (any chronological age)</td>
<td>Paediatric populations; general adult population (age 18+) with no upper age limit</td>
</tr>
<tr>
<td>OR ‘Adult’ in definition of the target population in the title or abstract AND minimum chronological age 65 for participation Community dwelling (ie, living outside of nursing homes)</td>
<td>No qualitative or quantitative description of targeted age demographic</td>
<td></td>
</tr>
<tr>
<td><strong>Concept</strong></td>
<td>Linkage with healthcare sector (any element, for example, primary care, specialists, etc)</td>
<td>Linkage initiated in community sector (as defined by CDC)</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>Linkage initiated in community sector (as defined by CDC)</td>
<td>Linkage initiated in health or social services sectors (as defined by CDC)</td>
</tr>
<tr>
<td>Any publication date Any information source (eg, peer-reviewed literature, conference proceedings, grey literature) Programme delivery in high-income country (as defined by World Bank)</td>
<td>Programme delivery in low-income or middle-income country (as defined by World Bank)</td>
<td></td>
</tr>
</tbody>
</table>

CDC, Centers for Disease Control and Prevention.
Context
This review restricts its attention to programmes designed for community-dwelling older adults; linkage programmes targeted to older adults residing in long-term care facilities are ineligible for inclusion. Analysis is restricted to programmes that are implemented in high-income countries as defined by the World Bank; programmes delivered in low-income or middle-income countries are excluded because the healthcare delivery systems are different. No date restrictions are applied.

Information in publications with English-language abstracts with full text in languages other than English will be accessed through translation by Google Translate, when possible.

Information sources
There is no restriction on type of evidence source or study design; peer-reviewed literature, conference proceedings and grey literature will be searched. In the event that information from a primary source is also referred to in an identified evidence synthesis, information from the primary source will be used in favour of the information from the evidence synthesis.

Key authors of documents included for full-text review will be contacted to request any additional publications on the scoping review topic. To identify publications that may have been missed, the reference lists of all included papers will be reviewed. The references in a scoping review on patient navigator interventions for facilitating access to primary care will also be reviewed.21

Review papers (eg, scoping, systematic, umbrella) will not be reviewed, but their reference lists will be hand searched for any papers that meet the criteria of the present review protocol. Unpublished dissertations will be excluded from review; the study team will attempt to locate published findings from identified dissertations.47

Search strategy
An information specialist/research librarian contributed to development of this protocol.

Search terms
There is no standard nomenclature or definition of programmes that 'link', ‘navigate’ or ‘liaise’ community members, healthcare systems and community organisations.20 22 48 49 For example, similar programmes are referred to as community–clinic linkage models,13 50–62 patient navigation models,20–22 liaison models,27 53 linking schemes54 or ‘system navigation programmes’ that ‘link’.26 This protocol uses the general term ‘programme’ to collectively refer to interventions of this kind. Search terms to define both participants and concept were adapted from those previously published;21 24 preliminary scoping searches were conducted to iteratively identify search terms. After the initial phases of screening for the scoping review, secondary searches may be run (and documented) if new terms emerge from the screening of the first searches.

Databases
The following citation databases, which collectively represent the public health, medical, nursing, ageing-related, social work and social services literature, will be searched: AgeLine (Ebsco); CINAHL Complete; MEDLINE (PubMed); Scopus Advanced (Elsevier); Social Services Abstracts (ProQuest); Web of Science Core Collection (Clarivate) (AgeLine and Web of Science Core Collection search the grey literature in addition to the published literature). Grey literature will also be searched through Google search; American Public Health Association Annual Meeting Conference Proceedings from 2018 to 2022;55–59 and SIREN (Social Interventions Research & Evaluation Network) Evidence & Resource Library.60 A Google search will be included in the grey literature search to capture reports on unpublished programmes.

To identify relevant search terms, an initial search was piloted in MEDLINE via PubMed. Polyglot61 was used to translate the MEDLINE PubMed search syntax to the syntax for additional databases. The ‘translated’ syntax was then manually revised by two authors (MG, GL) to ensure appropriateness. The proposed PubMed syntax is presented in table 2; see online supplemental appendix A for search strings for all databases listed above.

Godin and colleagues’ methodology for conducting Google searches for systematic review materials will be applied.62 The first 35 searches from each of the three Google strings listed in online supplemental appendix A will be reviewed, for a total of 105 reviewed items from the Google search.

The search will begin in August 2023 or later. After the initial phases of screening for the scoping review, secondary searches of new databases may be run (and documented) if need for additional databases emerges from the screening of the first searches. The review team will convene to discuss the need for secondary searches of new databases at the end of the initial phase of screening.

Anticipated limitations
The search will be limited by the wide range of terms used to refer to both the target population and CCLMs. It is possible that our search strategy will unintentionally omit appropriate publications for this reason. Likewise, the search strategy relies on explicit references to older adults in title/abstract. It is possible that interventions that implicitly target this population (eg, an intervention delivered by a community-based organisation that exclusively serves older adults) would not be included. Finally, this review is limited to searches of databases with peer-reviewed or grey literature and the Google search engine. Programmes that are not referenced in these databases or identified in the Google search will not be examined.

Study records
Data management
EndNote V.9.3.3 will be used to manage citations. Covidence,63 will be used to select documents and manage data extraction.
Data collection

Table 2  Proposed MEDLINE PubMed search syntax

<table>
<thead>
<tr>
<th>Population</th>
<th>Concept AND</th>
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The asterisk wildcard symbol (*) is used to find variants of word endings. MeSH, Medical Subject Headings.

Selection process

One reviewer will search databases and consolidate the references in reference manager software. References will be imported into Covidence and de-duplicated.

Two independent reviewers will assess screening, eligibility and inclusion. They will initially conduct blinded screening of title/abstract to ensure that the document fulfills eligibility criteria. A pilot test of title/abstract screening will precede the complete title/abstract review. The pilot will consist of screening 200 randomly selected references to ensure agreement between reviewers and establish inter-rater reliability. Any disagreement will be resolved by consensus discussion with a third reviewer. Inclusion and exclusion criteria will be revised as necessary for clarification during the pilot. The two reviewers will then screen title/abstracts of all publications; any disagreements will be resolved through discussion with a third reviewer, who will adjudicate the final inclusion decision. Full text of the accepted publications will be retrieved for review. Both reviewers will review the full text to assess for inclusion in the review as per eligibility criteria. A list of any disagreements will be resolved through discussion with a third reviewer, who will adjudicate the final inclusion decision. A list of titles excluded at this stage, as well as the reason for their exclusion, will be included in an appendix in the final paper. The final list of full-text articles will be reviewed by the supervising author. The PRISMA-ScR flow chart will be used to document the total number and reasons for exclusions at each stage, visualised in a figure.

Data collection

JBI Scoping Review Methodology Group’s best practices will be adopted in data extraction, analysis and presentation. Data collection will be performed by three reviewers (two primary reviewers and one adjudicator).

The proposed data extraction tool is presented in online supplemental appendix B. The table in online supplemental appendix B presents the proposed data extraction form questions, response types and responses (columns F–H) and corresponding proposed aggregation for data synthesis (column I), which will be presented in tabular format in the final paper. For consistent data extraction, the proposed questions related to healthcare access (columns C–E) and corresponding proposed aggregation for data synthesis (column I) are organised in terms of Levesque and colleagues’ Conceptual Framework of Access to Health’s ecologial levels and domains of access; corresponding colours in columns C–E (questions 10–41) indicate corresponding system-level and individual-level domains of access within Levesque and colleagues’ framework. The tool will collect descriptive information about each paper (eg, citation; publication type; age, gender and race/ethnicity demographics of target population; term used to describe the service; country of implementation; key findings) and information about how each analysed service enables healthcare access.

After initial title/abstract screening, the pilot form (consisting of columns A–H in online supplemental appendix B) will be shared with the review team for edits and clarification. One knowledge user, a community health worker, will be invited to provide feedback on the data extraction tool. After integrating edits, pilot use of the tool will be conducted independently by two reviewers. They will meet to resolve any discordances and revisions to the tool will be introduced as necessary. Any modifications to the tool will be discussed by both reviewers and reported in the final paper. The tool will
then be completed independently by both reviewers. Any disagreement between reviewers will be resolved through discussion with a third reviewer, who will adjudicate the final decision.

Missing data in publications that are requested on the extraction form will be elicited by contacting the listed contact author once by email at the email address listed on the publication. Data that are excluded from the reviewed publication and instead attained through direct contact with the authors will be indicated in the final publication.

Data synthesis
JBI Scoping Review Methodology Group’s best practices in scoping review data synthesis will be adopted. Data captured in the extraction tool will be quantitatively aggregated where appropriate (as presented in online supplemental appendix B, column I) and interpreted using Levesque and colleagues’ Conceptual Framework of Access to Health (as outlined in online supplemental appendix B, columns F–H, questions 10–41). One knowledge user, a community health worker, will be invited to participate in interpretation of aggregated data from completed extraction tools.

Assessments of strength of the body of evidence; of bias in individual studies; and meta-bias and assessments quality and risk of bias assessment and critical appraisal will not be performed as this is not necessary in a scoping review.

Patient and public involvement
Comments from the following patient and public representatives were instrumental in selection of the proposed research topic and in development of the present protocol’s research question and objectives from June 2022 to January 2023: community members attending three listening sessions hosted by the Institute for Excellence in Health Equity at New York University Grossman School of Medicine; staff at six local and national community-based organisations that serve older adults and/or care partners (also referred to as caregivers). Clinical input was provided by a geriatrician.

One knowledge user, a community health worker, will be invited to provide feedback on the data extraction tool and participate in interpretation of aggregated data from completed extraction tools.

The present protocol and planned scoping review will be published in open-access journals to enable patient and public access.

Ethics and dissemination
The study does not engage human or animal subjects and does not require Institutional Review Board approval. The authors plan to disseminate their findings in conference proceedings and publication in (a) peer-reviewed journal(s). The extracted data will be deposited in the Figshare data repository.

Contributors
MG conceptualised the review and drafted the manuscript. She is the guarantor. GL advised on search strategy development and protocol development. AS provided critical feedback to development of the research question, objective and scientific basis of this review protocol.

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Competing interests
None declared.

Patient and public involvement
Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication
Not required.

Provenance and peer review
Not commissioned; externally peer reviewed.

Supplemental material
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REFERENCES
11 The ACT Center - formerly known as the MacColl Center for Health Care Innovation. Improving chronic illness care, the chronic care model. 2003.


32 The recognize A, include, support, and engage (RAISE) act family Caregiving advisory Council & the Advisory Council to support National center on birth defects and developmental disabilities: a Scoping literatur...4:976-93.


