

BMJ Open Bridging knowledge, policies and practices across the ageing and disability fields: a protocol for a scoping review to inform the development of a taxonomy

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ABSTRACT

Introduction Bridging is a term used to describe activities, or tasks, used to promote collaboration and knowledge exchange across fields. This paper reports the protocol for a scoping review which aims to identify and characterise peer reviewed evidence describing bridging activities, between the ageing and disability fields. The purpose is to clarify the concepts underpinning bridging to inform the development of a taxonomy, and identify research strengths and gaps.

Methods A scoping review will be conducted. We will search Medline, Cumulative Index to Nursing and Allied Health Literature, Embase, PsycInfo, Sociological Abstracts and the Cochrane Library, to identify peer reviewed publications (reviews, experimental, observational, qualitative designs and expert commentaries) describing bridging activities. Grey literature, and articles not published in English will be excluded. Two investigators will independently complete article selection and data abstraction to minimise bias. A data extraction form will be iteratively developed and information from each publication will be extracted: (1) bibliographic, (2) methodological, (3) demographic, and (4) bridging information. Qualitative content analysis will be used to describe key concepts related to bridging.

Conclusions To our knowledge, this will be the first scoping review to describe bridging of ageing and disability knowledge, services and policies. The findings will inform the development of a taxonomy to define models of bridging that can be implemented and further evaluated to enable integrated care and improve systems and services for those ageing with disability.

Ethics and dissemination Ethics is not required because this is a scoping review of published literature. Findings will be disseminated through stakeholder meetings, conference presentations and peer reviewed publication.

INTRODUCTION

Bridging has been defined as a “range of concepts, tasks, technologies and practices aimed at improving knowledge sharing and collaboration across stakeholders,

Strengths and limitations of the study

- Bridging is a broad area of scientific knowledge that crosses diverse fields (eg, knowledge translation, integrated care). A scoping review provides a method for characterising the existing evidence of bridging activities and defining the concepts and tasks underpinning bridging. This conceptual work is essential for guiding the practice of bridging and for future research on the topic.
- As we elected to only include peer-reviewed published literature, we may not capture all evidence that exists on bridging, particularly that which is reported in grey literature that may reflect actual practices (eg, collaboration between aged care and disability services towards guideline or programme development).
- Stakeholders including researchers, service managers and front-line staff, educators, policy-makers and individuals living with disability will be engaged to review the scoping review findings and collaborate in planning next steps for research on bridging.

organisations and fields in care and support for persons with disabilities, their families and the aging population”.¹ In 2012, following a conference on growing older with a disability, the Toronto Declaration on Bridging Knowledge, Policy and Practice in Aging and Disability (Toronto Declaration) was produced.¹ The Toronto Declaration built on other international efforts including the Barcelona Declaration on Bridging in Long-term Care and Support² and the Graz Declaration on Disability and Ageing,³ all designed to raise awareness of the pressing need to ‘bridge’ the ageing and disability fields to deliver care more efficiently and effectively and ensure individuals receive care and supports based on

need, irrespective of 'age' or 'disability' categorisations.^{1 4} This paper presents the rationale and protocol for a scoping review which aims to characterise and map evidence of bridging activities at the nexus of ageing and disability.

Bridging emerged as an important concept because of recognised gaps in knowledge pertaining to gerontology in disability studies and of disability in the gerontology field.¹⁻³ Silos in service systems result from these knowledge gaps and from policies which define access to services based on age or disability categories and can limit access to care for individuals ageing with disability.⁵ Therefore, the population of individuals who are ageing with disability provides a context for studying models of bridging.

Individuals who have impairments in physical, cognitive or emotional functions that persist over their lifetime, resulting from injury or illness (eg, traumatic brain injury, developmental disability or multiple sclerosis) are referred to as ageing with disability.^{5 6} Scholars have highlighted the lack of research evidence on ageing with disability.⁷ For instance, there is a lack of epidemiological data on ageing with a disability⁷ which limits service delivery and policy planning for these individuals.⁸⁻¹⁰ For some populations (eg, traumatic brain injury), the evidence base guiding rehabilitation largely focuses on younger and not older adults,¹¹ which means professionals may be lacking evidence to guide their delivery of care.¹²⁻¹⁴ Many of the gaps in knowledge, practice and policy for those individuals ageing with disability, stem from historical divides between the ageing and disability fields.^{13 15} For instance, training programme for health-care professionals typically provide options to specialise in either geriatrics or disability,¹⁴ which may explain why evidence shows that health professionals working in geriatrics lack knowledge on how to manage disability and vice versa.^{14 16} Bridging may help to address some of these knowledge gaps by determining how to integrate education and training across gerontology and disability studies or by supporting teams or individuals with expertise in disability and ageing to work together in providing care, thereby drawing on the specialised knowledge and expertise in each field.

The divides in ageing and disability policies and practices also reflect different theories and epistemologies that guide research and knowledge creation for treatment and policy development.^{15 17} Disability as a concept, is most often studied through a social model and thus policy and interventions focus on creating inclusive environments and reducing barriers to participation.^{15 17 18} The concept of ageing, however, is most often studied within a medical model such that policy and intervention targets the person, with attempts to remediate impairments in body structures and functions.^{4 19} Bridging activities can support each field in learning from the other and approaching the issues of ageing and disability from multiple perspectives.^{1 20} However, there remains a lack of clarity around the concept of bridging and exactly what

tasks or activities are required to bridge these structural and epistemological divides.

A review of the evidence pertaining to bridging is an important step in clarifying the concepts and tasks involved in bridging, particularly as information on bridging can come from different fields. The field of knowledge translation may offer insights into research methods for identifying, collating and then exchanging evidence from ageing to disability and vice versa (eg, Heller *et al*²¹). Education may provide theories and models guiding interprofessional collaboration and education.^{22 23} Organisational learning theory is also relevant in understanding bridging in education and in service delivery and how to drive system change.²⁴

Bridging tasks are also varied and involve different stakeholders depending on whether they occur in education, service delivery, research or policy. In service delivery for example, bridging may be an intervention delivered by a professional (eg, a case manager) who is facilitating collaboration between services²⁵ or relate to system level tasks designed to promote horizontal and vertical integration (eg, through governance structures, eHealth platforms to share information or care pathways).^{26 27} At a policy level, financing models, which mandate collaboration between aged care and disability sectors, are another emerging trend.^{26 28 29} Clearly, bridging across ageing and disability can take many forms and is used to bring about different changes, in individuals, organisations or systems. Thus, despite a recognised need for bridging activities to support those ageing with disability, there remains no clarity on what bridging entails or which tasks are employed to facilitate bridging and in what contexts.⁶ There is no common terminology to guide the practice of bridging or to facilitate further research on this topic.

A scoping review is a method used to map evidence in broad fields such as that of bridging.^{30 31} To our knowledge, no systematic or scoping reviews have been conducted to identify and synthesise all evidence of bridging tasks. We propose to conduct a scoping review to address the question, what is the nature and purpose of bridging tasks employed by individuals, teams or organisations, supporting individuals ageing with disability? Specific objectives for our review are: to identify and characterise the evidence describing bridging tasks, targeting the ageing with disability population and describe (1) the bridging tasks described in peer-reviewed scientific literature and their intended outcomes; (2) the contexts where bridging has occurred; (3) the stakeholders engaged in bridging and (4) research gaps related to bridging. This scoping review has two purposes. The first is to define the concepts and tasks related to bridging and to inform the development of a taxonomy. The second is to ascertain whether there is sufficient evidence evaluating similar aspects of bridging that could be synthesised in a systematic review.

METHODS

We will conduct a scoping review using methodological guidelines outlined by Arskey and O'Malley³⁰ and extended by Levac and colleagues.³² This scoping review methodology includes six steps: (1) identifying the research question and study purpose (described above); (2) identifying relevant studies; (3) selecting the relevant studies; (4) charting the data; (5) collating, summarising and reporting results and (6) consulting with stakeholders. Our methodology is described below in relation to each of these steps.

Identifying relevant studies: search strategy

We will search Ovid Medline Epub Ahead of Print, In-Process and Other Non-Indexed Citations, Ovid Medline Daily and Ovid Medline (1946 to present), Ovid Embase (1947 to present), Ovid Allied and Complementary Medicine (AMED) (1985 to present), Ovid PsycINFO (1806 to present), EBSCO Cumulative Index to Nursing and Allied Health Literature (CINAHL; 1981 to present), ProQuest Sociological Abstracts (1952 to present) and the Cochrane Library to identify peer-reviewed articles addressing bridging in ageing with disability. Search strategies will be developed by an academic health science librarian (EL) with input from the project leads. MeSH terms, Emtree terms, CINAHL headings, AMED thesauri terms, American Psychological Association thesauri terms, Thesaurus of Sociological Indexing terms and text words will be used for the search concepts of disability, ageing and bridging. The concept of bridging will be operationalised to include search terms for knowledge exchange, collaboration and partnership. The concepts will then be combined with a Boolean 'AND'. Please refer to (see online supplementary appendix A) to view the initial Ovid Medline strategy. Additionally, we will use Scopus to retrieve citing, and cited references, of relevant studies and reviews included for full-text review. Authors of included studies will be contacted to obtain further information to determine if the study meets our inclusion/exclusion criteria if required.

Study selection: inclusion criteria

Eligibility criteria are as follows: (1) Included articles will address the ageing with disability population defined as individuals with a diagnosed condition before age 65 that has the potential to have a long-term effect on functioning and/or participation. Any articles describing the concept of disability in relation to older adults (eg, frailty) without reference to disability in earlier life will be excluded. Additionally, because initial testing of the search strategy yielded a high volume of articles, we will focus on articles pertaining to the populations of individuals ageing with a neurological condition or developmental disability to focus the review. (2) Included articles will explicitly discuss bridging tasks defined as purposeful knowledge exchange, partnership development or collaboration activities involving individuals, teams, organisations and/or concepts from the ageing and disability research,

practice and policy fields. We will include articles if they describe the tasks enacted or required for bridging. Tasks will be defined as intentional or purposeful actions taken to access and apply knowledge from one field (ageing or disability) to the other. Examples may include exchange of knowledge (eg, guideline development or conferences involving stakeholders from each field), development of formal or informal partnerships (across fields) or inter-professional collaboration to adapt existing services using knowledge from ageing and disability. Recognising that bridging activities may not always be described in the title or abstracts of published literature, any abstracts which include terms like coalition, partnership, collaboration or exchange will be reviewed in full text to ascertain if they describe bridging tasks. (3) We will include all qualitative, quantitative, mixed-methods designs and editorials or commentaries published in English. The rationale for including all study designs is to ensure our search is comprehensive to guide our process of taxonomy development, including all relevant concepts and tasks. Grey literature will be excluded at this stage to focus the review on peer-reviewed evidence, however, we will consult with stakeholders to consider whether grey literature should be reviewed in the next stages of taxonomy development in light of our review findings.

A calibration exercise will be used to test and refine these inclusion/exclusion criteria. Three members of the research team will complete title and abstract screening, with the eligibility criteria being refined (increasing the specificity) if there is low agreement between the reviewers. We will continue to have three team members reviewing titles and abstracts until we have good agreement which we defined as (a kappa statistic of at least 0.7 and at least 80% agreement).³³

Study selection: article screening

Once inclusion and exclusion criteria are finalised, we will use a two-stage process for screening and selecting relevant studies. In the first stage, two reviewers will independently screen the title and abstracts of identified articles and make a decision regarding eligibility based on our inclusion/exclusion criteria. In the second stage, two reviewers will access and independently screen the full-text articles of all potentially relevant studies and complete the data abstraction for included articles. Where there is disagreement between the two raters regarding an article's eligibility for inclusion in the review, a third researcher will be consulted to reach consensus. We will not assess the methodological quality of the included studies as our intent was to define key concepts related to bridging and to assess the scope of evidence on the topic. The reference manager software Endnote will be used to store and manage search results.

Data abstraction

A data abstraction form will be developed in an iterative fashion as two reviewers independently extract data from a random sample of 10 articles. Data items will include:

(1) bibliographic information (eg, first author, year of publication, country study was conducted in, journal or publication source); (2) methodological information (eg, study design and objectives); (3) population (diagnosed condition, age, sex, ethnicity, education, other individuals involved in the study such as caregivers); (4) the bridging context (rationale for bridging, intended outcome of bridging activity and how these outcomes were measured) and (5) bridging tasks (descriptors of the bridging tasks including: what knowledge was shared and how, stakeholders involved, duration of the tasks and the theories guiding bridging, as well as barriers and facilitators to bridging, if discussed). After finalising the data, extraction from two investigators will independently read each article and extract the relevant data. Differences in abstraction will be resolved by discussion or the involvement of a third reviewer.

Data analysis

To address objectives 1 and 3 and describe the types of bridging activities and stakeholders engaged, we will use a qualitative content analysis.^{34 35} Qualitative content analysis involves the following steps: (1) gaining familiarity with the data; (2) initial line by line coding; (3) focused coding; (4) theorising key concepts and relationships between concepts. We will code data to define who was engaged in the bridging work, what was done, where the bridging took place, intended outcomes and any barriers and facilitators to bridging. We will separately analyse bridging tasks that have been implemented from those that have been recommended/suggested in commentaries to identify gaps in knowledge related to the effectiveness of different bridging activities and how to implement them.

To address objectives 2 and 4 and ascertain the contexts where bridging has occurred and gaps in the evidence, we will use a descriptive analysis to summarise the number of studies describing bridging in the context of research, education, service delivery and policy. We will chart these data to show the number of studies addressing each domain, the desired outcomes of the bridging activities in this category, instruments used to measure these desired outcomes and the types of bridging activities used in each context (based on themes emerging in the qualitative content analysis). If studies relate to multiple domains we will complete analyses referring to the primary context of the bridging activity.

Consultation with stakeholders

Following data analysis, we will hold a meeting with key stakeholders in the fields of ageing and disability. Members of our research team are connected with an international network providing advocacy and research related to bridging at the nexus of ageing and disability. Bridging Ageing and Disability International Network (BADIN) consists of individuals from academic, service delivery, policy contexts in Australia, Canada, Europe and the USA. This network, as well as other stakeholders in

policy, practice and those with lived experience of ageing with disability will be invited to a meeting to vet the findings of the scoping review and to plan for the taxonomy development as well as a broader research agenda on bridging.

Discussion and dissemination

The number of people growing older with disability is rising,¹⁵ increasing the demand for supports and services and to calls internationally for bridging or knowledge sharing and collaboration between the ageing and disability fields.^{1 2} This review will define key concepts and tasks related to bridging in the context of ageing and disability. The findings can be used to develop a taxonomy of bridging that can guide the science and practice and facilitate communication across fields through a common understanding of the concept of bridging and how it can be implemented.²⁰ Additionally, the review findings will demonstrate where there are gaps in evidence related to bridging that can inform future research.

This scoping review protocol outlines one approach for identifying and then synthesising evidence on bridging. One challenge for conducting a knowledge synthesis in this area is that it is a topic drawing on knowledge from multiple fields (eg, ageing, disability, knowledge translation and health services).³¹ Different terminology, particularly pertaining to concepts like 'disability' makes identifying articles challenging. To account for this, we included diagnosed conditions in our search strategy to identify articles addressing the population of people who are ageing with a neurological or developmental disability. We selected these populations because there is a growing body of literature on ageing with disability in these groups,^{4 21 36} but this does limit the transferability of our findings. The fact that we did not include grey literature in our search also may limit the results, as it is possible that we will not capture relevant bridging tasks, not evident in scientific literature. Publishing this scoping review protocol may further discussions on the best practices in conducting scoping reviews in interdisciplinary fields.

The results of this scoping review will serve to better delineate the tasks associated with bridging which can guide future research to evaluate or synthesise evidence on this topic.⁶ We will disseminate our findings in a peer-reviewed publication, at scientific conferences and at stakeholder meetings with those in policy and practice supporting individuals ageing with disability.

CONCLUSION

The fields of ageing and disability have evolved in parallel as distinct fields with different evidence, theories, practice models, policies and services.¹⁵ This has led to silos and calls for integrated care, particularly for those who are ageing with disability and therefore do not fall neatly into age or disability categories.⁹ Bridging is foundational to achieving integrated care,^{26 37} yet it is a complex

area, discussed in diverse fields.⁶ Mapping the evidence pertaining to bridging will help to delineate and describe bridging tasks that can be applied in research, education, service delivery and policy and illuminate gaps in knowledge, thereby driving a research agenda on this topic.

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Contributors EN drafted the protocol. EN, MP, LS, AS and ZB conceived and designed the study. EL designed the search strategy with input from EN and ZB and drafted this section of the methods. All authors helped to edit the protocol. All authors read and approved the final protocol prior to its submission.

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REFERENCES

- Bickenbach JE, Bigby C, Salvador-Carulla L, *et al.* The Toronto declaration on bridging knowledge, policy and practice in aging and disability. *Int J Integr Care* 2012;12:12-12.
- Salvador-Carulla L, Balot J, Weber G, *et al.* The Barcelona declaration on bridging knowledge in long-term care and support. *International Journal of Integrated Care* 2009;2010.
- Weber G, Wolfmayr F. The Graz declaration on disability and ageing. *J Policy Pract Intelect Disabil* 2006;3:271-6.
- Molton IR, Jensen MP. Aging and disability: biopsychosocial perspectives. *Phys Med Rehabil Clin N Am* 2010;21:253-65.
- Naidoo V, Putnam M, Spindel A. Key focal areas for bridging the fields of aging and disability: findings from the growing older with a disability conference. *Int J Integr Care* 2012;12:12.
- Salvador-Carulla L, Putnam M, Heller T. Advancing a research agenda for bridging ageing and disability. *Int J Integr Care* 2012;12.
- Freedman VA. Research gaps in the demography of aging with disability. *Disabil Health J* 2014;7:S60-S63.
- Clarke P, Latham K. Life course health and socioeconomic profiles of Americans aging with disability. *Disabil Health J* 2014;7:S15-S23.
- Iezzoni LI. Policy concerns raised by the growing US population aging with disability. *Disabil Health J* 2014;7:S64-S68.
- Yorkston KM, McMullan KA, Molton I, *et al.* Pathways of change experienced by people aging with disability: a focus group study. *Disabil Rehabil* 2010;32:1697-704.
- Ritchie L, Wright-St Clair VA, Keogh J, *et al.* Community integration after traumatic brain injury: a systematic review of the clinical implications of measurement and service provision for older adults. *Arch Phys Med Rehabil* 2014;95:163-74.
- Iezzoni LI. Eliminating health and health care disparities among the growing population of people with disabilities. *Health Aff* 2011;30:1947-54.
- Kroll T, Jones GC, Kehn M, *et al.* Barriers and strategies affecting the utilisation of primary preventive services for people with physical disabilities: a qualitative inquiry. *Health and Social Care in the Community* 2006;14:284-93.
- Maiden RJ, Horowitz BP, Howe JL. Workforce training and education gaps in gerontology and geriatrics: what we found in New York State. *Gerontol Geriatr Educ* 2010;31:328-48.
- Putnam M. Linking aging theory and disability models: increasing the potential to explore aging with physical impairment. *Gerontologist* 2002;42:799-806.
- Iacono T, Bigby C, Unsworth C, *et al.* A systematic review of hospital experiences of people with intellectual disability. *BMC Health Serv Res* 2014;14:1.
- Naue U, Kroll T. Bridging policies and practice: challenges and opportunities for the governance of disability and ageing. *Int J Integr Care* 2010;10:e041.
- Seelman K. Aging with a disability: views from the National Institute on disability and rehabilitation research. *Assist Technol* 1999;11:84-7.
- Martinson M, Berridge C. Successful aging and its discontents: a systematic review of the social gerontology literature. *Gerontologist* 2015;55:58-69.
- Salvador-Carulla L. Bridging aging and disability networks: strategies for translating knowledge into practice. *Int J Integr Care* 2012;12.
- Heller T, Fisher D, Marks B, *et al.* Interventions to promote health: crossing networks of intellectual and developmental disabilities and aging. *Disabil Health J* 2014;7:S24-S32.
- Putnam M. Bridging network divides: building capacity to support aging with disability populations through research. *Disabil Health J* 2014;7:S51-59.
- Zwarenstein M, Atkins J, Barr H, *et al.* A systematic review of interprofessional education. *J Interprof Care* 1999;13:417-24.
- Ferlie E, Crilly T, Jashapara A, *et al.* Knowledge mobilisation in healthcare: a critical review of health sector and generic management literature. *Soc Sci Med* 2012;74:1297-304.
- Lukersmith S, Fernandez A, Millington M, *et al.* The brain injury case management taxonomy (BICM-T): a classification of community-based case management interventions for a common language. *Disabil Health J* 2016;9:272-80.
- Valentijn PP, Schepman SM, Opheij W, *et al.* Understanding integrated care: a comprehensive conceptual framework based on the integrative functions of primary care. *Int J Integr Care* 2013;13:655-79.
- Minkman MM, Schouten LM, Huijsman R, *et al.* Integrated care for patients with a stroke in the Netherlands: results and experiences from a national Breakthrough Collaborative Improvement project. *Int J Integr Care* 2005;5.
- Johri M, Beland F, Bergman H. International experiments in integrated care for the elderly: a synthesis of the evidence. *Int J Geriatr Psychiatry* 2003;18:222-35.
- McDaid D, Cieza A, Gomez AR. Bridging knowledge: reflections on crossing the boundaries between long-term care and support. *Int J Integr Care* 2009;9.
- Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol* 2005;8:19-32.
- Bragge P, Clavisi O, Turner T, *et al.* The Global Evidence Mapping Initiative: scoping research in broad topic areas. *BMC Med Res Methodol* 2011;11:1.
- Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. *Implement Sci* 2010;5:1.
- Colquhoun HL, Jesus TS, O'Brien KK, *et al.* Study protocol for a scoping review on rehabilitation scoping reviews. *Clin Rehabil* 2017;31:1249-56.
- Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today* 2004;24:105-12.
- Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res* 2005;15:1277-88.
- Bigby C. Beset by obstacles: a review of Australian policy development to support ageing in place for people with intellectual disability. *J Intelect Dev Disabil* 2008;33:76-86.
- Miller R. Crossing the cultural and value divide between health and social care. *Int J Integr Care* 2016;16:10.