

REVIEW ARTICLE

Healthy ageing through participation in community situated activities: A scoping review of assessment instruments to support occupational therapy practice

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Abstract

Introduction: The occupational therapy profession has an essential role to play in healthy ageing that includes enabling participation, a construct that according to The International Classification of Functioning, Disability and Health (ICF), incorporates an environmental context. Environmental barriers and enablers of participation in community-situated activities for people over the age of 65 have been identified. To support practice, occupational therapists require assessments with demonstrated content validity including comprehensive coverage of the construct. The purpose of this scoping review study was to investigate what instruments are available to assess community participation for people over the age of 65 that included environmental factors.

Methods: A scoping review of the literature was conducted, utilising the Joanna Briggs Institute (JBI) scoping review methodology. The evidence source was review articles and inclusion criteria were that they reviewed instruments to assess participation that could be used for people over the age of 65. Items extracted from included instruments were evaluated against a preset list of community-participation and environment categories that had been developed from the ICF.

Results: Twenty-three review studies met inclusion criteria and from these 240 instruments were extracted. Twenty instruments were retained after exclusions and from these, 540 instrument items were extracted. Of these, 280 (47%) were coded as community-participation, and only 20 (3.4%) as environment items. Fourteen of the instruments included no environment items.

Conclusions: No instrument was identified that comprehensively assessed community participation including the related environmental factors. Such an instrument is required to enable occupational therapy practitioners to support healthy ageing. The development of such an instrument will strengthen the profession's capacity to develop new ways of delivering services to older adults in line with emerging ways that aged care will be delivered and to advance its essential role in healthy ageing.

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KEYWORDS

assessment, community participation, content validity, environmental factors, healthy ageing

1 | INTRODUCTION

Healthy Ageing is the process of developing and maintaining the functional ability that enables well-being into older age (World Health Organisation [WHO], 2017). Occupational therapists recognise that for older people, involvement in lifelong activity significantly contributes to creating and maintaining health, well-being, and quality of life (World Federation of Occupational Therapists [WFOT], 2021). Involvement in activities that are situated in the community, or community participation, is integral to wellness for people over the age of 65 (Mulry et al., 2017). Restrictions on community participation can lead to depression, loss of independence and personal identity, loneliness, and reduced life satisfaction and well-being (Edwards et al., 2009; Kemperman et al., 2019). Moreover, a person participating in any form of out-of-home activity, regardless of the type, is likely to be more physically active than one who is restricted to in-home activities (Aird & Buys, 2015). Older people participate in a wide range of community-situated activities, and the number and type vary across individuals (Heatwole Shank et al., 2019; Larsson et al., 2009). They include doing errands, spending time with family and friends, attending medical appointments, shopping and leisure activities, attending religious services, going for a walk for exercise, visiting the bank or post office, shopping for groceries, formally organised social activities, and informal social activities with friends such as playing cards.

Within its global strategy and action plan on healthy ageing, the WHO noted the importance of healthy, accessible, and supportive environments, which enable people to age in a place that is right for them and to do the things they value (WHO, 2017). This plan recommended the development of age-friendly environments and supported research and innovation to foster healthy ageing that included developing evidence-based assessment tools. The WHO recognised the importance of context for functioning when it developed the International Classification of Functioning, Disability and Health (ICF) (WHO, 2001), a framework for describing and organising information on functioning and disability. Within the ICF framework, participation was defined as “involvement in life situations,” occupying the same taxonomy as activities but distinguished by a performance qualifier that described what an individual does in his or her environment. To support its use in practice, a taxonomy of

Key Points for Occupational Therapy

- Future occupational therapy aged-care practice models should incorporate enabling community participation.
- Valid assessment tools for evaluating community participation in older adults need to be developed.
- The assessment’s community-participation construct should include environmental factors and be informed by population experiences.

environmental contextual factors was included within the ICF that covered all aspects of the physical, social, and attitudinal world such as financial assets, natural and manmade changes to the environment, support and relationships, attitudes, services, systems, and policies (WHO, 2001). Occupational therapy practice frameworks have traditionally emphasised the transactional relationship between people, their occupations, and the environment, including the factors that affect participation (Law, 2002). The importance of the personal and environmental context for community and social participation becomes more important as people age (WFOT, 2021). The environmental factors identified as either barriers or enablers to community participation for people over the age of 65 included proximity to neighbourhood resources, transit use, and family and social network (Levasseur et al., 2015); neighbourhood-built environment, walkability, residential density, street connectivity, land-use mix, public transport, pedestrian infrastructure, aesthetics, safety, and traffic (Rachele et al., 2019); and reduced economic assets (Heatwole Shank et al., 2019).

The occupational therapy profession has an essential role in healthy ageing that includes both enabling community participation and addressing environmental factors such as design of the built environment, institutional policy, societal attitudes, transportation, and outdoor spaces (WFOT, 2021). The WFOT position statement on the role of occupational therapy across the life course represents a move away from “traditional” occupational therapy tasks and new ways of delivering occupational therapy services. These new ways have the potential to address community

mobility, community participation, and health and well-being among community-dwelling older adults (Mulry et al., 2017; Stav et al., 2012). In Australia, sweeping changes to the way aged care services are being funded and delivered were included among the recommendations contained within the final report from the Royal Commission into Aged Care Quality and Safety (Commonwealth of Australia, 2021). Recommendations of note included that “older people are entitled to be active and engaged members of the community, regardless of their age or level of physical or cognitive capability” (p. 206), and that those people who are ageing in their own homes should receive allied health care at home and appropriate to their needs. These potential changes will present an opportunity for occupational therapists to develop and advance new ways of service delivery. In both developing and advancing the role of occupational therapy to support health ageing, specifically in enabling all community dwelling older people to stay actively involved and to participate in community situated activities, the occupational therapy profession will require valid assessment tools. These should include descriptive assessments, which provide the the knowledge to inform effective and efficient planning and intervention, and evaluative assessments, which can be used to detect changes over time (Laver-Fawcett, 2007). The purpose of this study was to investigate through a scoping review what valid assessment instruments are available to enable occupational therapists to assess community participation for people over the age of 65. Informing this scoping review was The COnsensus-based Standards for the selection of health Measurement INstruments (COSMIN), which is commonly used by occupational therapists in the development and evaluation of instruments for occupational therapy clients (Bourke-Taylor et al., 2018). The COSMIN is a widely used taxonomy and guide to the development and evaluation of measurement tools in health. Within the *COSMIN methodology for systematic reviews of Patient-Reported Outcome Measures (PROMs) user manual* (Mokkink et al., 2017), content validity was described as the most important property of an assessment and recommended as the first psychometric property to be evaluated. Within these guidelines, for content validity to be established, items in an instrument should be relevant and comprehensive with respect to the construct of interest, the specific population and the context of use.

Comprehensiveness requires that no key aspects of the construct should be missing. Hence, the specific research questions guiding this scoping review were as follows:

1. What instruments are available to assess community participation for people over the age of 65?
2. How comprehensive are the instrument items for measuring community participation with respect to the ICF taxonomy?
3. How comprehensive and relevant are the instrument items for measuring the contextual physical, social, and attitudinal environmental factors with respect to the ICF taxonomy?

To guide this study, a preset taxonomy of community-participation and environmental contextual items were extracted following the ICF guidelines (Bickenbach, 2012; WHO, 2013). The preset contained 10 community-participation categories and the 12 environment categories (see Table 1).

2 | METHOD

To address these research questions, a scoping review of the literature was conducted, utilising the Joanna Briggs Institute (JBI) scoping review methodology. Unlike systematic reviews that address relatively precise questions, a scoping review is more appropriate for exploring emerging areas, for understanding the breadth of instruments available, and for mapping and summarising key concepts and research gaps (Aromataris & Munn, 2020). An initial limited search of two online databases (CINAHL and Scopus) was conducted yielding more than 450,000 results. Following JBI guidelines (Aromataris & Munn, 2020), the type of evidence source for this study was limited to published literature reviews, including systematic and scoping reviews, to ensure feasibility without limiting the breadth of findings. Congruent with the JBI scoping review methodology, a four-stage a priori scoping review protocol was developed consisting of (1) search strategy, (2) selection of sources of evidence, (3) data extraction and charting process, and (4) analysis and presentation of evidence.

2.1 | Search strategy

This scoping review considered literature reviews of instruments developed to measure participation specifically for or inclusive of people over the age of 65. Inclusion criteria was set as follows: published literature review studies; studies published after 2001 were included to capture instruments based on the International Classification of Functioning, Disability and Health (ICF; WHO, 2001) framework; published in English; and full text journal articles available. Exclusion criteria included: studies not conducted in English; no abstract; no full text. The following free text terms and truncations were used to search

TABLE 1 Participation and environment categories applied to this study extracted from the International Classification of Functioning, Disability and Health (ICF) (WHO, 2001)

ICF component (P = participation, E = environment), ICF code (d = participation, e = environment), first level chapter number and title, second level category.	Preset categories for the current scoping review
Pd4 mobility: Walking and moving d450-d469	Walking and moving
Pd4 mobility: Moving around using transportation d470-d489	Community transportation
Pd5 self-care: Looking after one's health d570-d597	Health and fitness
Pd6 domestic life: Acquisition of goods and services d620-d628 & caregiving d650-d669	Shopping, and caregiving
Pd7 interpersonal interactions and relationships d730-d779	Social relationships
Pd8 major life areas: Non-remunerative employment d855-d858	Volunteering
Pd8 major life areas: Economic life d860-d878	Economic transactions
Pd9 community, social and civic life: Community life d910 and political life and citizenship 950	Community life
Pd9 community, social and civic life: Recreation and leisure d920-d929	Recreation and leisure
Pd9 community, social and civic life: Religion and spirituality d930-d939	Religion
Ee1 products and technology: Mobility e120	Assistive technology: Mobility and transport
Ee1 products and technology: Culture, sport and religion e140-e149	Assistive technology: Culture, sport, religion
Ee1 products and technology: Public buildings: Access e150	Accessibility: Public building
Ee1 products and technology: Private use buildings: Access e155	Accessibility: Private building
Ee1 products and technology: Assets, financial and tangible e165	Personal assets
Ee2 natural environment and human-made changes: Physical geography e210	Physical geography
Ee2 natural environment and human-made changes: Density, flora and fauna, climate, light, sound, air quality. e215-e260	Natural and human made environment
Ee3 support and relationships e310-e329	Family and friends support
Ee3 support and relationships: Professionals and people in authority e330-e349, e360	Professionals support
Ee3 support and relationships: Domesticated animals e350	Pets
Ee4 attitudes, family, community, professionals, society, norms. e410-e499	Attitudes,
Ee5 services, systems and policies. e510-e599	Service systems and policies

databases CINAHL, Scopus, Embase, Ovid, and EM reviews (Cochrane): TI (measure* OR assess* OR instrument* OR tool OR survey OR questionnaire) AND TI (participation OR activit* OR mobility OR integration OR inclusion OR occupation*) AND TI review.

2.2 | Selection of sources of evidence

All review studies identified from the final search were imported into an online tool (Covidence, 2021) and duplicates removed. Decision rules for review study inclusion criteria were developed based on the inclusion and exclusion criteria specified above, and the review study included instruments that could be used to predict, describe, assess, or evaluate participation in community situated activities and/or occupations. These study inclusion criteria were trialled on a set of 20 articles by one author (LK). Two independent screeners (authors LK and

HBT) reviewed all titles and abstracts. Articles that met inclusion criteria and those that were unclear following title/abstract review had a full text review. Full texts were retrieved and then reviewed independently by the two screeners applying the same decision rules for study inclusion. Reasons for exclusion were systematically documented. At each stage, the two screeners conducted an initial screen of 10% of studies and then compared and discussed results. Arising conflicts were resolved by the two reviewers through systematically considering inclusion and exclusion criteria until consensus was reached.

2.3 | Data extraction and charting process

A data extraction tool was developed based on the JBI methodology for scoping reviews (Aromataris & Munn, 2020) to capture the following characteristics

about each of the included review studies: citation, study objectives and/or research questions, construct or definition of participation, total number of instruments extracted, and number of extracted instruments included in this scoping study. The first screener (LK) trialled the extraction form on three review studies to ensure that relevant evidence could be extracted and that the approach was feasible.

Every instrument was extracted from each of the included review studies and the following exclusion criteria was established and applied. An instrument was excluded if it (1) did not measure participation, (2) was not developed for people over the age of 65, or (3) was cited in three or fewer review studies. To ensure that relevant but more recent, and so less cited assessments were not excluded using these criteria, assessments cited in three or fewer reviews were included if the word participation was in its title. One reviewer (LK) independently extracted data at each iteration and the second reviewer (HBT) verified the data before the instrument dataset was finalised.

2.4 | Analysis and presentation of evidence

The characteristics of the included review studies were summarised and presented in tabular form. To evaluate the comprehensiveness of the included instruments, all items that measured community participation and all items that measured related environmental factors were then labelled using the preset taxonomy (see Table 1). The comprehensiveness of coverage of community participation and environment items across the preset categories was analysed using simple frequency and percentage calculations and then displayed in tabular form.

3 | RESULTS

As shown in the PRISMA flow diagram (see Table 2), the search identified 1161 articles. After duplicates were removed, the abstract and title of 794 articles were screened using decision rules for study inclusion criteria. This stage resulted in 757 articles identified as not meeting inclusion criteria, which were subsequently removed. The remaining 37 articles underwent full text review, resulting in a further 14 exclusions. Following this process of exclusion, 23 review studies met inclusion criteria and were retained. From these 23 review studies, 240 separate instruments were extracted (see Table 2), and these were then screened using decision rules for instrument inclusion criteria, which resulted in 220 instruments not

meeting inclusion criteria and being subsequently removed. Following this process, 20 instruments met the inclusion criteria and were retained (see Table 2).

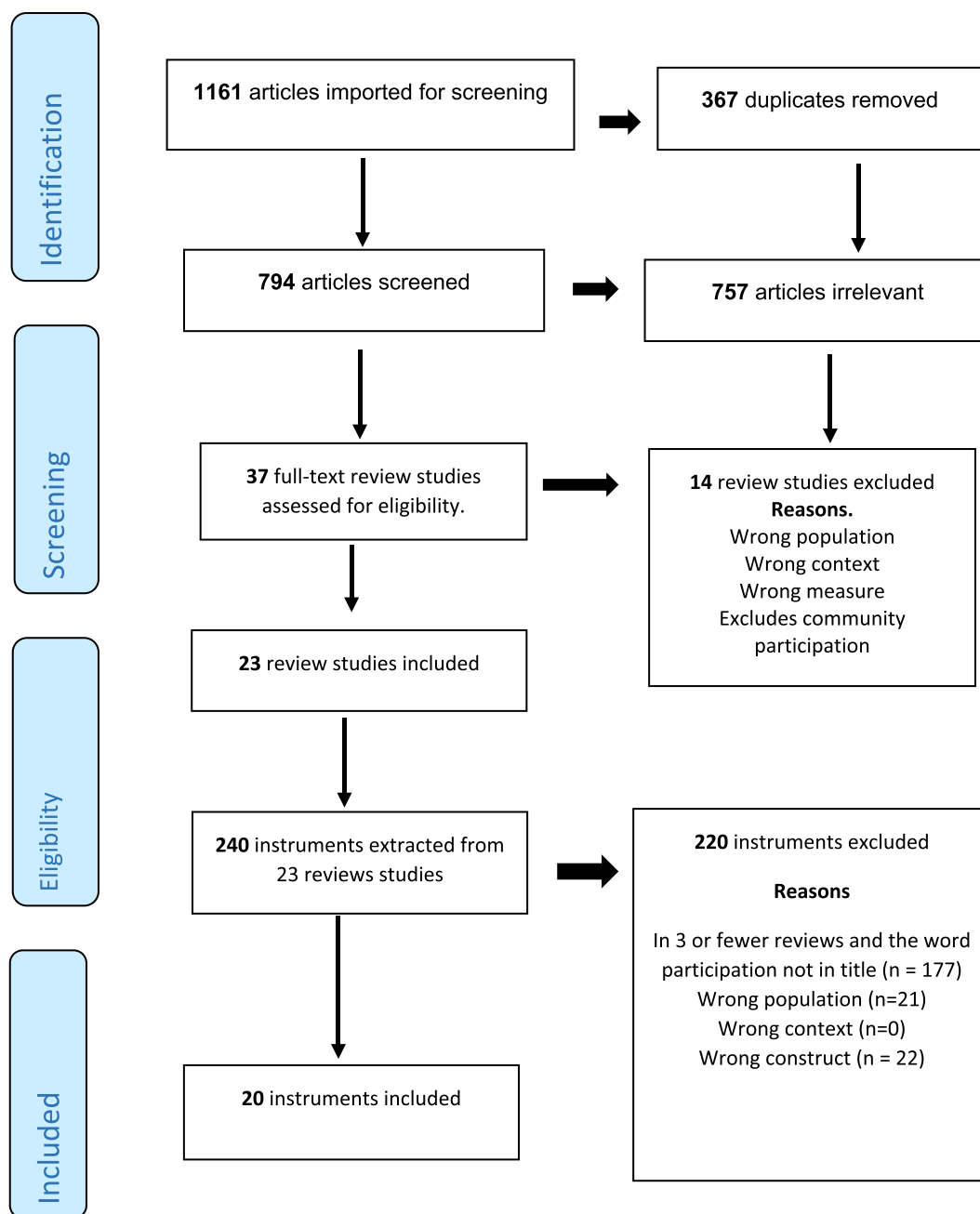
3.1 | Characteristics of the included studies

The characteristics of the review studies were analysed and summarised (see Table 3). All 23 review studies had been published after 2003, and 22 of the 23 studies (95%) were published after 2008. The review study with the most instruments meeting the inclusion criteria for this scoping review (15) was one of the most recent, published in 2019. In comparison, for the earliest dated review study, published in 2003, only two of the nine instruments were included. Overall, there was an average of 3.7 included instruments per review study. All review studies included at least one generic measures of participation (an inclusion criterion for this review); however, nine of the 23 studies (39%) were focused on a specific disease. These were spinal cord injury ($n = 3$), stroke ($n = 2$), dementia ($n = 1$), cancer ($n = 1$), kidney transplant ($n = 1$), and aphasia ($n = 1$). In 15 of the 23 studies, the participation definition or construct underpinning the study incorporated the ICF definition of “involvement in life situation” (WHO, 2001). Seven studies defined participation as intrinsically social, requiring a social context, or always involving other people.

3.2 | Characteristics of the included instruments

As reported in the PRISMA flow diagram (see Table 2), of the initial 240 instruments extracted, 22 were excluded because they did not measure participation (items instead measured body structure, body function, handicap, and/or impairment). A further 21 instruments were excluded because they were for the wrong population, for example the *Community Integration Measure* which was developed specifically for adults with brain injury and had not been validated with people over the age of 65. Although 186 instruments were cited in three or fewer reviews, nine of these had the word participation in their title and were retained, for example, *Participation Assessment with Recombined Tools-Objective (Part-O)* which was only cited in two review studies (see Table 4). Characteristics of the final included instruments were instrument name, abbreviation, and number of included study reviews that cited the instrument (see Table 4). On average, an instrument was cited by 4.4 review studies. The two least cited instruments were the *Meaningful Activity*

TABLE 2 PRISMA flow diagram: Search process



Participation Assessment (MAPA) ($n = 1$), and *Participation Enfranchisement PART-E* ($n = 1$). The most frequently cited was the *Impact on Participation and Autonomy Questionnaire (IPA)*, ($n = 13$) (see Table 4).

3.3 | Data coded to the ICF preset categories

Overall, 594 individual items were extracted across the 20 instruments, and of these, 280 (47%) were categorised

as community-participation items and 20 (3.4%) were categorised as environment items (see Table 4). Two instruments included items from all 10 of the community-participation preset categories. These were the *Activity Card Sort (ACS)* and *Participation Measure for Post-Acute Care (PM-PAC)*. The community-participation preset categories with the highest and second highest number of coded items were “recreation and leisure” ($n = 54$) and “social relationships” ($n = 51$). The community-participation preset categories with the least number of coded items were “walking and moving” ($n = 11$),

TABLE 3 Characteristics of review studies included in this scoping review

Citation details	Review objectives, research questions	Participation definition	Instruments extracted in current study	Total instruments in cited review study
Ballert et al. (2019)	To examine the comparability of existing instruments measuring participation based on the ICF by considering aspects of content, the perspective adopted and the categorization of response options.	Participation as described in the ICF is understood as the involvement of a person in a life situation and occurs in interaction with the influence of contextual factors which encompass environmental and personal factors.	15	41
Chang et al. (2013)	(1) Identifying and describing instruments that measure community participation, (2) examining to what extent the overall concept of community participation is represented in these instruments, and (3) examining how extensively and frequently the community participation domains identified within the ICF are addressed by these instruments.	Community participation defined as active involvement in activities that are intrinsically social are part of a nondomestic role but does not necessarily require physical presence in the community.	5	17
Coombs et al. (2013)	To identify available individual-level candidate measures of social inclusion, to describe their characteristics and to undertake a preliminary examination of their potential for routine use in the current context.	Social inclusion, having access to, and participating in, all opportunities and choices afforded to other people	1	10
Cordier et al. (2017)	To conduct a systematic review of the literature on all current measures of social inclusion for any population group, to evaluate the quality of the psychometric properties of identified measures, and to evaluate if they capture the construct of social inclusion.	For the purpose of this review, participation includes attendance and involvement in social and community spaces and activities.	1	25
Dalemans et al. (2008)	To identify and describe existing measures of participation that may be specifically useful according to speech and language therapists when measuring participation in people with aphasia	The performance of people in actual activities in social life domains through interaction with others in the context in which they live.	3	12
Eyssen et al. (2011)	To what extent instruments that intend to measure participation actually do so according to our working definition of participation and how frequently specific aspects and domains of participation are addressed by these instruments.	We defined participation as performing <i>roles in</i> the domains of social functioning, family, home, financial, work/education, or in a general domain. Participation requires a social context, involving not just an	9	68

(Continues)

TABLE 3 (Continued)

Citation details	Review objectives, research questions	Participation definition	Instruments extracted in current study	Total instruments in cited review study
Janaudis-Ferreira et al. (2014)	To draw attention to measures that assess patients ability to perform ADLs as reflected by practical, everyday activities	environmental factor, but mainly involving other people. IADLs are more complex activities and require higher functioning, such as preparing meals, handling finances, home maintenance, shopping, and travelling alone.	1	16
Javanmard et al. (2020)	To provide a review of contemporary participation instruments that were developed for and/or assessed in a spinal cord injury population and to examine their measurement properties.	Some participation measurements were excluded from this article with regards to this explanation of participation, as they covered questions concerning ICF chapter 4 (mobility) and chapter 5 (self-care).	5	6
Ju et al. (2019)	To identify the characteristics, content, and psychometric properties of the outcome measures used to assess life participation in kidney transplant populations.	Life participation: is defined as the ability to participate in meaningful activities of daily living including work, study, and social recreational activities.	3	29
Kessler and Egan (2012)	To identify both generic and occupational therapy specific measures of participation that have been developed and/or tested with stroke survivors, and to examine their potential usefulness as outcome evaluations for occupational therapy.	Participation is involvement in life situations. Includes both personal and environmental factors in analysing participation problems and developing solutions.	3	10
L'Hotta et al. (2020)	To determine what assessment tools are currently used to evaluate participation in life activities in individuals with cancer.	Involvement in a life situation, active involvement in activities that are intrinsically social and occur in a societally defined context.	4	20
Magasi and Post (2010)	To provide a comparative review of contemporary participation measures and emphasising each instruments conceptual foundations, psychometric properties, and item content.	Involvement in life situations. Participation is used as a neutral term to describe social health and functioning.	7	8
Magasi et al. (2008)	To conduct an evidence-based review of SCI literature to identify appropriate participation outcome measures for use in research and practice.	Involvement in life situations. Participation is related to a person's ability to be an active and contributing member of society. Participation as being influenced by environmental factors.	1	3

(Continues)

TABLE 3 (Continued)

Citation details	Review objectives, research questions	Participation definition	Instruments extracted in current study	Total instruments in cited review study
Mangiaracina et al. (2019)	To identify measuring instruments for assessing the social health aspects, self-management and social participation in community-dwelling people with mild dementia. To provide an overview of the psychometric properties.	Participation in social activities.	1	11
Noonan, Miller, and Noreau (2009)	To provide an overview of participation instruments assessed in persons with SCI and to critically evaluate their measurement properties.	The involvement in a life situation, the importance of contextual factors, specifically personal factors and environmental factors.	1	6
Noonan, Kopec, et al. (2009)	To identify instruments developed to assess participation; describe how participation has been operationalised; and summarise the measurement properties of the instruments in various health conditions.	Participation is defined in the ICF as involvement in a life situation and participation restriction is defined as problems an individual may experience while involved in life situations	9	11
Pashmdarfard and Azad (2020)	To review the assessment tools of ADL and IADL functions in older adults.	IADL refers to activities to support daily life within the home and community that often require more complex interactions than those used in ADLs.	1	13
Perenboom and Chorus (2003)	To report our view on how existing survey instruments assess participation and participation restrictions as defined in the ICF.	An individual's ability to execute a task or an action in a uniform or standard environment, while the performance qualifier describes what an individual does in his or her current environment.	2	9
Resnik and Plow (2009)	To use the ICF taxonomy to evaluate and compare the participation content of existing measures.	Participation focuses on the persons involvement in society (i.e., social functioning), and participation would more likely be performed with others.	6	36
Ritchie et al. (2014)	To report how older adults (CI) was operationalised, the outcome measures used post-TBI, and their assessed needs for CI.	Community integration: social, community, and in-home participation and participation in meaningful, productive activities.	2	6
Stevinkel and van Brakel (2013)	To review the cultural equivalence testing process for participation instruments.	We decided to use the definition of participation (handicap) as proposed in the ICF (ICIDH), because this framework is widely used throughout the world.	3	5

(Continues)

TABLE 3 (Continued)

Citation details	Review objectives, research questions	Participation definition	Instruments extracted in current study	Total instruments in cited review study
Tse et al. (2013)	To identify and critique the measures currently used to assess participation in clinical stroke studies and to evaluate each tool relative to the ICF activities and participation domains.	Involvement in life situations. Environmental factors affect all components of functioning and disability and are organised in sequence from the individuals most immediate environment to the general environment.	1	5
Wales et al. (2016)	To identify and appraise the properties of assessments used to evaluate functional abilities in older adults.	Participation is the involvement in a life situation.	2	28

Abbreviations: ADL, activities of daily living; CI, community integration; IADL, Instrumental activities of daily living; TBI, traumatic brain injury; ICF, International Classification of Functioning; ICIDH, International Classification of Impairments, Disabilities and Handicaps; SCI, spinal cord injury.

“religion” ($n = 14$), “health and fitness” ($n = 16$), and “community transportation” ($n = 19$) (see Table 4).

Overall, there were 20 items coded across the 12 environment preset categories; however, 10 (50%) were from just the one instrument, *Participation Survey/Mobility (PARTS/M)*, and only six of the 20 instruments included any environmental items. No instrument included items from all of the 12 environment preset categories. The environment preset category that had the greatest number of items (9) across the most instruments (4) was “attitudes.” Just one item each was coded against the “assistive technology: mobility and transport” and “accessibility: public building access” environment preset categories, and eight of the 12 environment preset categories had no items at all coded against them. These eight categories included the following: “accessibility: private building,” “personal assets,” “physical geography,” and “family and friends support.”

4 | DISCUSSION

4.1 | Main findings

This scoping review study investigated whether any assessment instruments were available to support health professionals, including occupational therapy practitioners to assess participation in community situated activities for people over the age of 65. Of the 540 items extracted across the 20 instruments purporting to measure participation that were included in this scoping review, almost half were able to be coded against the 10 community participation, preset categories created for this study. The content validity of a measurement is the most important and first property that should be evaluated (Mokkink et al., 2017). Content validity is the degree to which the content of an instrument is an adequate reflection of the construct to be measured and the instrument items should be comprehensive in its coverage of this construct. Therefore, overall it appeared that instruments are available to support health professionals to assess community participation. However, within the ICF framework, participation was defined as “involvement in life situations” and described what an individual does in his or her environment. Therefore, following COSMIN guidelines (Mokkink et al., 2017), to demonstrate content validity against this participation construct, an assessment instrument measuring participation should also comprehensively incorporate the relevant environmental factors. The results of this study found that overall there was minimal coverage of the environmental categories across the 20 included instruments and that 14 of the 20 had no relevant environmental items.

TABLE 4 Items extracted from included instruments and coded against the ICF preset community participation categories and the ICF preset environment categories

Instrument	Reviews citing.	Total items	ICF preset community-participation coded items											Recreation and leisure	Religion
			Community-participation items.	Total environment items	Walking and moving	Shopping and caregiving	Social relationships	Volunteering	Economic transactions	Community and life					
ACS	4	82	47	0	1	2	3	9	6	1	1	5	17	2	
AAP	3	21	11	0	1	1	4	1	1	1	1	3	1		
ACPQ	4	63	23	0	7	5	1	3	2	2	2	1	3	7	
IMPACTs	4	33	13	0	1	2	2	3	1	1	2	2	1	1	
IPA	13	39	17	1	8	5	1	2	1	2	2	5	1	2	
PAR PRO	5	20	13	0	2	1	1	5	5	5	5	5	5	5	
KAP	5	15	5	0	1	2	1	1	1	1	1	1	1	1	
IADL	4	8	3	0	1	1	1	1	1	1	1	1	1	1	
MSSP	2	26	22	0	5	3	2	1	1	1	2	2	2	9	
MAPA	1	28	18	0	3	1	2	1	1	1	2	1	2	6	1
PE	1	19	11	4	2	2	2	1	1	1	1	1	1	1	
PM-PAC	6	51	23	0	3	3	2	1	6	1	2	2	2	2	1
P-scale	6	18	12	2	2	1	1	1	2	2	2	2	2	1	
Parts/M	5	40	20	10	1	1	1	1	1	1	1	1	1	2	1
PART-O	2	17	9	0	1	2	2	2	2	2	2	3	3	3	
PIPP	6	23	9	0	1	1	1	1	3	1	1	1	2	2	
ROPP	3	22	10	0	1	2	3	3	3	2	2	1	1	1	
User-P	3	11	5	0	1	1	1	1	1	1	1	2	2	2	
Whodas	9	36	7	2	1	1	1	1	2	2	1	1	1	1	
Whoqol	2	22	2	1	11	19	16	31	51	25	13	26	54	14	
		594 (100%)	280 (47.1%)	20 (3.4%)	11	19	16	31	51	25	13	26	54	14	

Abbreviations: AAP, Adelaide Activities Profile; ACPQ, Australian Community Participation Questionnaire; ACS, Activity Card Sort; ICF, International Classification of Functioning, Disability and Health; IADL, Lawton and Brody IADL scale; IMPACT-s, ICF measure of Participation and Activities Questionnaire – screener part; IPA, Impact on Participation and Autonomy Questionnaire; KAP=Keele Assessment of Participation; MAPA, Meaningful Activity Participation Assessment; MSSP, Maastricht Social Participation Profile; PAR-PRO, Instrument of Home and Community Participation; Parts/M, Participation survey/Mobility; PART-O, Participation Assessment with Recommended Tools-Objective; PE, Participation Enfranchisement; PIPP, Perceived Impact of Problem Profile; PM-PAC, Participation Measure for Post-Acute Care; P-Scale, Participation Scale; ROPP, Rating of Perceived Participation; User-P, Utrecht Scale for Evaluation of Rehabilitation-Participation; Whodas, World Health Organisation Disability Assessment Scale Version 2.0 Self report; WHOQOL, World Health Organisation Quality of Life.

TABLE 4 (Continued)

ICF preset environment coded items											
Instrument	Assistive technology: Mobility and transport	Assistive technology: culture, sport, religion	Accessibility: Public building	Accessibility: Private building	Personal assets	Physical geography	Natural and human made environment	Family and friends support	Professionals support	Pets	Attitudes, and policies
ACS											
AAP											
ACPQ											
IMFACTs											
IPA										1	
PAR PRO											
KAP											
IADL											
MSSP											
MAPA											
PE											4
PM-PAC											
P-scale											2
Parts/M	1										9
PART-O											
PIPP											
ROPP											
User-P											
Whodas										1	
Whoqol										1	
	1	9	1	0	0	0	0	0	0	0	9
											0

Abbreviations: AAP, Adelaide Activities Profile; ACPQ, Australian Community Participation Questionnaire; ACS, Activity Card Sort; ICF, International Classification of Functioning, Disability and Health; IADL, Lawton and Brody IADL scale; IMFACT-s, ICF measure of Participation and Activities Questionnaire – screener part; IPA, Impact on Participation and Autonomy Questionnaire; KAP=Keele Assessment of Participation; MAPA, Meaningful Activity Participation Assessment; MSSP, Maastricht Social Participation Profile; PAR-PRO, Instrument of Home and Community Participation; Parts/M, Participation survey/Mobility; PART-O, Participation Assessment with Recombined Tools-Objective; PE, Participation Enfranchisement; PIPP, Perceived Impact of Problem Profile; PM-PAC, Participation Measure for Post-Acute Care; P-Scale, Participation Scale; ROPP, Rating of Perceived Participation; User-P, Utrecht Scale for Evaluation of Rehabilitation-Participation; Whodas, World Health Organisation Disability Assessment Scale Version 2.0 Self report; WHOQOL, World Health Organisation Quality of Life.

Using these criteria applied to the findings of this scoping review, it was concluded that no assessment tool was found that comprehensively supported occupational therapy practitioners in advancing healthy ageing, specifically in enabling participation in community situated activities.

4.2 | Interpretation of findings

Consistent with COSMIN guidelines (Mokkink et al., 2017), two aspects of content validity were considered when interpreting these findings: (1) the degree the instruments were an adequate reflection of the construct of participation as defined by the ICF and (2) the comprehensiveness and relevance of the included items with respect to the ICF taxonomy.

4.2.1 | Were the instruments an adequate reflection of the construct to be measured?

There was wide variance in the number of items extracted across each of the 10 community-participation preset categories that may be explained by variance in the instrument developers', as well as the review authors' definitions of participation. For example, Chang et al. (2013) described participation as nondomestic activities; Eysen et al. (2011) stated that daily activities are not participation because they occur at the level of the individual and Javanmard et al. (2020) excluded all items within the ICF mobility chapter. These definitions are consistent with the first of four options provided by the ICF for delineating between activity and participation items; in option one there are distinct non-overlapping sets of activity and participation domains, with items in domains 1–4 (including domain 4 “mobility”) considered activities and items in domains 5–9 considered participation (WHO, 2001). These definitions were also reflected in the emphasis placed on the “recreation and leisure” and “social relationship” items across the instruments reviewed. Combined, these two categories accounted for 38% of all items whereas the categories “walking and moving” and “community transportation” combined accounted for only 10%. Within the ICF, a participation code is distinguished from an activity code by a performance qualifier that describes what an individual does in his or her environment; therefore, by conceptualising all of the ICF domain 4 mobility items (which included using transport, driving, and walking outside the house) as activities, environmental qualifiers are not considered. Although this was consistent with the ICF guidelines, it was not warranted given the research into community

mobility, which has identified significant environmental factors. These have included proximity to neighbourhood resources, transit use, family, and social networks (Levasseur et al., 2015); neighbourhood-built environment, walkability, residential density, street connectivity, land-use mix, public transport, pedestrian infrastructure, aesthetics, safety, and traffic (Rachele et al., 2019); and reduced economic assets (Heatwole Shank et al., 2019). The WHO now recommends that a fourth option is used in which there is a single fully overlapping list where any item can be categorised as either activity or participation (WHO, 2013) and that the participation code is distinguished from an activity code by considering what an individual does in his or her environment. It is recommended that health professionals select instruments for assessing participation in community situated activities that are consistent with this fourth option to ensure that they contain a comprehensive coverage of the related and relevant environmental factors.

4.2.2 | Comprehensiveness of instrument items for assessing community participation

Content validity, the degree to which the instrument is an adequate reflection of the construct to be measured, includes two key aspects, relevance and comprehensiveness (Terwee et al., 2018). The term community participation has been used interchangeably with community integration, social integration, social participation, life experience, and life roles, and possibly related to this, there has been a tradition in rehabilitation to place participation at an abstract community-society level and activity at a concrete, person-level (Dijkers, 2010). The stance that community participation activities are essentially social and discretionary was also contained within themes throughout the reviewers' descriptions of participation. This included the following: participation is being in control, fulfilling personal goals and societal roles (Perenboom & Chorus, 2003), “participation requires a social context, involving not just an environmental factor, but mainly involving other people” (Eysen et al., 2011, p. 934), and “active involvement in activities that are intrinsically social and either occur out of the home or are part of a nondomestic role” (Chang et al., 2013, p. 772). Within the ICF (WHO, 2001), no such distinction was made. According to the guidelines, all items within the Activity & Participation taxonomy could be considered as an activity or a participation item regardless of distinguishing factors such as the social context, preference or whether it occurs at an individual or social level. People over the age of 65 have engaged in a wide range of community-

situated activities that contributed to health, life satisfaction, and independence but not all of them were necessarily intrinsically social, nondomestic, or contributing to fulfilling personal goals. These have also included walking for exercise, shopping, banking, and attending medical appointments (Heatwole Shank et al., 2019; Larsson et al., 2009). Although some instruments included these community-situated activities, overall, there was a more comprehensive coverage of “social relationships” and “recreation and leisure” activities.

4.2.3 | Comprehensiveness of instrument items for measuring the related physical, social, and attitudinal environmental enablers and barriers

The results of this scoping review included that overall there was very minimal coverage of community-participation relevant environmental items, with 14 of the 20 instruments including no environmental items at all. The most cited instrument did not include any environmental items, only one instrument included an item from the category “assistive technology: mobility and transport,” and only one instrument included an item from the category “accessibility: access to public buildings,” both of which have been shown through research to be closely linked to community mobility and participation for older people (Rachele et al., 2019). No instrument covered items from all 12 preset environmental categories developed for this study, and only two instruments covered more than one category. These results were consistent with the findings from a number of the included reviews, for example, Ballert et al. (2019), who concluded that 84% of concepts were linked to Activities & Participation, followed by 5.3% to Environmental factors. Likewise, Magasi et al. (2008) concluded that “existing instruments may be inadequate to capture the dynamic interaction between the person and the environment inherent in the ICF definition of participation” (p. 152). Eight preset environment categories had no items coded in any of the included instruments, including “Personal assets,” “Physical geography,” “Natural and human made changes,” “Family and friends support,” “Professionals support,” and “Pets.” Therefore, environmental factors identified as significant barriers or enablers to community participation, such as proximity to neighbourhood resources, family and social network, neighbourhood-built environment, walkability, residential density, street connectivity, land use mix, pedestrian infrastructure, aesthetics, safety, and traffic (Levasseur et al., 2015; Rachele et al., 2019) were not assessed in

any of the included instruments. Likewise, no instrument included an item for measuring “Personal Assets,” even though previous studies have shown that an older resident’s participation may be unnecessarily curtailed by economic factors beyond their control (Heatwole Shank et al., 2019). The exclusion of these environmental factors across instruments that purported to measure participation as determined by the ICF is therefore not warranted. The environment preset category that had both the most items, and was also covered by the highest number of instruments was “Attitudes,” accounting for almost half of the overall environmental items. Attitude as an environmental barrier to community participation has not been covered by previous research studies (Levasseur et al., 2015) and, therefore may not be relevant to include in such an assessment instrument. Within the ICF framework, participation is defined as “involvement in life situations,” occupying the same taxonomy as activities but distinguished by a performance qualifier that describes what an individual does in his or her environment. The ICF included a taxonomy of environmental contextual factors that covered all aspects of the physical, social and attitudinal world (WHO, 2001). Moreover, when assessing clients, occupational therapists gather accurate information about the client’s circumstances, including environmental factors (WFOT, 2021). Therefore, to have demonstrated content validity, an instrument developed to assess community participation for people over the age of 65 would be expected to include a comprehensive list of items that measure relevant environmental factors.

4.3 | Strengths and limitations

Although scoping reviews are not required to systematically and comprehensively map the evidence, it is acknowledged that by limiting the data search to studies with the word “review” in the title, this may have diminished how comprehensively the instruments developed for measuring participation were mapped in this scoping review. However, this effect would be minimal given that the Joanna Briggs scoping review guidelines stated that a review title should include the word review (Aromataris & Munn, 2020). Limiting the evidence source to review studies and the exclusion of instruments cited in three or fewer review studies may have biased older instruments, and many of the 23 studies focused on research studies. Both of these factors may have favoured instruments being included that were developed as outcome measures and with more established psychometric properties, rather than more recently developed

instruments developed primarily for descriptive and evaluative assessments.

In the current study, included papers were not screened for quality or risk of bias. This was consistent with guidelines that stated that an assessment of methodological limitations or risk of bias of the evidence included is generally not performed within a scoping review, (Aromataris & Munn, 2020). To ensure rigour, transparency and trustworthiness, two independent screeners were used throughout this review's study inclusion stages. However, it is acknowledged that only one reviewer completed the instrument item extraction and coding. This may have introduced some bias although it was minimised through the use of a preset for coding items that was developed using the ICF guidelines and taxonomy (Bickenbach, 2012; WHO, 2013).

4.4 | Implications for future occupational therapy research and conclusions

The WFOT, in response to the WHO Healthy Ageing strategy (WHO, 2017), produced a position statement on the role of occupational therapy across the life course. The position statement stated that the profession plays an essential role in healthy ageing that includes enabling community participation and addressing environmental factors such as design of the built environment, institutional policy, societal attitudes, transportation, and outdoor spaces (WFOT, 2021). In both developing and advancing the role of occupational therapists to support health ageing, specifically in enabling older adults to stay active in their community and to participate in community situated activities, the occupational therapy profession will require valid assessment tools. These should include descriptive assessments, which provide the knowledge to inform effective and efficient planning and intervention, and evaluative assessments that can be used to detect changes over time (Laver-Fawcett, 2007). For an assessment instrument to have content validity, the items need to be relevant, comprehensive, and comprehensible with respect to the construct of interest, and for the intended population (Terwee et al., 2018). Comprehensiveness in respect of the ICF requires that such an assessment is not limited to social activities, nondomestic tasks, or discretionary recreational activities. Instead, it should incorporate all community-situated activities alongside the environmental factors that act as either barriers or enablers to participation. The main finding of this scoping review was that no such instrument is available for assessing community participation for people over the age of 65.

It is recommended that such an assessment instrument is developed that, according to COSMIN methodology (Terwee et al., 2018), would be based on a clearly described construct. Unfortunately, the ICF has received some criticism for not providing a theory to explain how environmental factors interact with functioning or disability to influence participation, which has contributed to a lack of clarity and consensus around the terms defining participation (Dijkers, 2010). Following COSMIN methodology, the first stage in developing the construct would be a conceptual framework based on a review of the literature especially studies that have utilised lived experiences of the population (Terwee et al., 2018). For this assessment, the lived experience would be around the barriers and enablers experienced by older adults to their participation in activities situated within the community.

The development of such an instrument would enable occupational therapists to use evidence-informed practice to facilitate community participation for older adults and, therefore, to maintain their health, well-being and quality of life. The development of such an instrument will strengthen the profession's capacity to develop new ways of delivering services to older adults in line with emerging ways that aged care will be delivered, and to advance its essential role in healthy ageing as outlined by the WFOT (2021).

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CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

AUTHOR CONTRIBUTION

The first author named is lead and corresponding author. All listed authors agree to be accountable for all aspects of the work and substantially contributed to the conception and design of the work, revising drafts, and final approval for publication. HBT also contributed to the analysis and interpretation of data.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analysed in this study.

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