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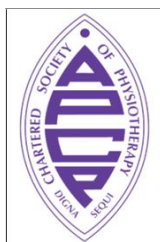
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Understanding the role of the therapist in improving access to sport, leisure activities and participation for wheelchair users with a childhood onset disability.

A scoping review protocol

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Abstract

Background

Participation in cultural life, recreation, leisure and sport is enshrined in Article 30 of the United Nations Convention on the Rights of Persons with Disabilities, and is a common, overarching aim of therapy provision in (re)habilitation services due to the known benefits to physical and mental health and well-being. However, participation opportunities for people with wheelchair users with childhood onset disabilities can be limited.

Aim

This review aims to identify the nature and breadth of inclusion of wheelchair users with childhood onset disabilities in leisure and recreational activities. It seeks to understand what strategies/interventions are currently being undertaken, including the barriers and facilitators to inclusion. It also aims to identify how healthcare professionals can enable and improve participation in sport, recreation and leisure activity for this group of patients.

Method

A scoping review will be conducted according to the guidelines from the Joanna Briggs Institute (JBI) Manual for Evidence Synthesis and the methodological framework by Arksey & O'Malley. A comprehensive search of the literature will be performed. This will be followed by search of the reference lists of included studies and hand-searching of any relevant systematic reviews. Studies published in English from 2010 until the date of the search will be considered for inclusion. Two reviewers will independently screen all titles and abstracts against eligibility criteria. Full texts of potentially relevant studies will also be screened for inclusion by two reviewers independently. One reviewer will extract data from included studies related to study characteristics, population demographics, and intervention content and parameters (e.g. frequency and duration of sessions). Extracted data will be presented in tabular form and synthesised narratively. Any disagreements that arise between the reviewers will be resolved through discussion or with a third reviewer.

Conclusions

This scoping review will show the extent and scope of the literature on how community leisure programs can be leveraged to promote inclusion and wellbeing and will evaluate and map the evidence on these topics.

INTRODUCTION

Article 30 of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) formally recognises the right of persons with disabilities to participate in cultural life, recreation, leisure, and sport. This provision carries significant implications for therapeutic practice, as engagement in these domains is increasingly acknowledged as integral to holistic rehabilitation and overall well-being. Traditionally, medical and therapeutic models have focused on impairment and symptom management; however, there is a shift toward participation-focused care that prioritises functional engagement, social inclusion, and community integration (Fragala-Pinkham et al., 2012; Miller & Rosenbaum, 2016).

There is mounting evidence supporting the health and wellbeing benefits of physical activity, particularly in mitigating cardiopulmonary decline, reducing pain, and maintaining mobility and function. These benefits extend beyond physiological outcomes, contributing to enhanced social connectedness and opportunities for relationship-building and community engagement (Gallota et al., 2024; Ayyildiz et al., 2024). Such considerations are especially pertinent for children, adolescents, and adults with childhood-onset disabilities who rely on wheelchairs for mobility and access to their communities. A recent priority-setting study highlighted the importance of promoting disability inclusion and physical activity among children and young people with physical disabilities (Brady, 2024). Maintaining health and fitness is a proactive strategy to counteract physical deterioration; however, individuals with complex disabilities of childhood (DC) are up to 62% less likely to meet recommended physical activity guidelines compared to their typically developing peers (Martin Ginis et al., 2021). This disparity contributes to an elevated risk of secondary health complications associated with sedentary lifestyles, placing additional strain on medical and therapeutic services.

Where therapeutic provision is stretched, community-based activity programmes may offer a viable pathway to improving physical activity engagement, particularly given the growing move towards social prescribing models (Polley & Sabey, 2022). Nevertheless, participation opportunities for wheelchair users with childhood-onset disabilities remain constrained. Health and fitness professionals have identified persistent barriers to inclusion in community-based exercise programmes, including environmental, attitudinal, and structural challenges (Carbone et al., 2021; Polley & Sabey, 2022; Elipe-Lorenzo et al., 2025). Addressing these barriers is essential to fostering inclusive, health-promoting environments that align with contemporary models of disability and rehabilitation. Therapeutic interventions must increasingly leverage cultural, recreational, and leisure activities to promote social inclusion, enhance quality of life, and support functional (re)habilitation. By aligning therapy provision with the principles enshrined in Article 30, practitioners not only uphold human rights but also contribute to the creation of empowering environments where individuals with disabilities can engage meaningfully in their communities. This scoping review aims to explore how therapists can promote and facilitate physical activity, inclusion, and participation, while reducing sedentary behaviour among wheelchair users with childhood-onset disabilities.

METHOD

This scoping review will follow the framework proposed by the Joanna Briggs Institute (JBI, Arksey et al., 2005; Levac et al., 2010; Peters et al., 2020). While, the overall conduct of the scoping review is informed by the JBI framework, the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for scoping reviews (PRISMA-ScR) will be used to guide the reporting of the scoping review (Tricco et al., 2018). A scoping review was selected as the

most appropriate form of literature review to enable mapping of the research and identify key themes and gaps.

The study will be completed over five stages: (1) determining the research question, (2) search strategy, (3) inclusion criteria, (4) data extraction and (5) analysis and presentation of the results.

Stage 1: Determining the research question

The purpose of this scoping review is to summarise methods to enhance physical activity and participation in wheelchair users with a childhood onset disability.

Key aims include to:

Understand the barriers and facilitators to participation and inclusion in physical and leisure activities for wheelchair users with a childhood onset disability.

1. Understand the barriers and facilitators to participation and inclusion in physical and leisure activities for wheelchair users with a childhood onset disability.
2. Identify the strategies, logistics and practicalities in providing, improving /

increasing access to sport, recreation and leisure activities for wheelchair users with a childhood onset disability.

3. Understand the therapist's role in diminishing barriers and enhancing facilitators to accessing sport, recreation and leisure activities and reducing sedentary behaviour.

Stage 2: Search strategy

The search strategy will aim to locate both published and unpublished studies. The databases to be searched for this review include Medline, CINAHL Complete, PsycINFO, ERIC and Embase. The search will use keywords and Medical Subject Headings (MeSH) terms (Table 1); terms for Population, Concept and Context will be combined using Boolean operator 'AND'. The search strategies will be created specifically for each database using relevant index and free text terms. The reference list of key studies will be hand searched to identify any further studies appropriate for inclusion, forward and backward citation tracking of included studies will also be conducted. **Table 1: Search terms**

Population	Concept	Context
Child*	Physical activit*	Social inclusion
Youth	Sports	Social participation
Young Person	Leisure	Community participation
Young People	Play	Inclusion
Teenage*	Recreation	Physiotherapist
Adolescent	Health Promotion	Occupational therapist
Paediatric	Social	Rehabilitation
Adult	Community	Therapy
Developmental disabilities		
Neurodevelopmental disorders		
Wheelchair user		

Following the search, all identified citations will be collated and uploaded into Covidence (VH Innovation, 2017) and duplicates removed. Two independent reviewers will then screen titles and abstracts for assessment against the inclusion criteria for the scoping review. Studies that could potentially meet the inclusion criteria will be retrieved in full text. The full text of selected citations will be assessed in detail against the inclusion criteria by two or more independent reviewers. Reasons for exclusion of sources of evidence at full text that do not meet the inclusion criteria will be recorded and reported in the scoping review. Any disagreements that arise between the reviewers at each stage of the selection process will be resolved through discussion with the research team. The results of the search and the study inclusion process will be reported in full in the final scoping review and presented in a PRISMA flow diagram (PRISMA-ScR; Tricco et al, 2018).

Stage 3: Inclusion criteria

The Population-Concept-Context (PCC) framework will be used to align the selection of studies with the research question. Only English language studies will be considered for inclusion, published after 2010. This scoping review will not have any geographic restrictions. Studies conducted in multi-country or multi-city sites are also eligible to be included. There will be no restriction on gender.

Participants

This review will include studies that involve children, young people and adults who use a wheelchair for mobility and who have a childhood-onset disability (wheelchair users with a childhood onset disability).

Concept

The overarching concept for this review is participation in sports and leisure activities that are defined as any bodily movement produced by skeletal muscles that requires energy expenditure such as movement, sport, games, or recreational play (WHO, 2024).

Context

Studies conducted in rehabilitation healthcare settings: rehabilitation hospitals, centres, clinics, long-term care facilities, sporting or recreational venues, community spaces or out-patient settings in any country.

Type of evidence to be included

All types of literature review and primary research (both published and unpublished) will be eligible for inclusion including quantitative (e.g. trials and observational studies), qualitative and mixed methods studies. Text and opinion papers will also be considered for inclusion in this scoping review.

Stage 4: Data extraction

Data extraction will involve three reviewers extracting data using a data extraction tool developed a priori. Each paper will be reviewed by two authors and any discrepancies discussed and confirmed by the reviewing team. The data extraction form will be piloted to determine if any refinements are necessary. Expected extraction fields are shown in Table 2.

Table 2. Preliminary data extraction variables

Details	Description
Bibliographical details	Author(s), Year of publication
Study details	Title, Objectives of the study, methodology of the study (design, type of analysis)
Geographical location	Country of origin
Population characteristics	Sample size, age, sex. Clinical details such as type of condition, stage of condition etc.
Leisure activity	Description of the leisure activity
Methodology	Methodology used in the study
Key findings related to the scoping review questions	Summary of main results
Theme	Social inclusion, participation, health promotion
Sub Themes	Related to barriers and facilitators to participation and inclusion in physical and leisure activities: support, adaptations, policies, actions Implications for practice Description of logistics and practicalities in providing improving / increasing access to sport recreation and/or leisure
Study limitations	As reported by authors.

This data extraction tool will be modified and revised as necessary during the process of extracting data from each included evidence source. Modifications will be detailed in the scoping review. Any disagreements that arise between the reviewers will be resolved through discussion with the review team. Authors of studies will be contacted to request missing or additional data, where required.

Stage 5: Analysis and presentation of the results

Qualitative and quantitative findings of the studies will be tabulated and accompanied by a narrative summary.

CONCLUSIONS

Physical activity, leisure and community participation are recommended for the health

and social benefits they bring. For children, young people and adults who rely on a wheelchair for mobility, accessing these activities can be difficult. Most do not meet exercise recommendations (Martin Ginis et al., 2021) but there is a shift in healthcare provision towards prevention through promotion of activities which reduce sedentary behaviour, as detailed in the NHS 10 Year Plan (Department of Health and Social Care, 2025).

Many studies have reported the barriers and facilitators to inclusion and accessing physical and leisure activities for wheelchair users with a childhood onset disability. This review aims to understand how therapists can assist in improving access to sport and leisure activities for this vulnerable group of patients and

reducing their sedentary behaviour. The findings will guide clinicians, academics, policy makers and non-clinical stakeholders in determining how they can assist in improving access to sport, leisure and recreation in this group of patients for the longer-term health benefits.

Keywords: Physical activity, sports, leisure, participation, complex disability

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Conflict of Interest: None to declare.

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