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Rehabilitation for hard to reach populations: A scoping review protocol

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Abstract

Introduction: There is a lack of research investigating physiotherapy and occupational therapy service needs for hard to reach populations, the best practice service delivery and health outcomes for individuals from hard to reach population sub groups who receive these services.

Purpose: The proposed review will identify key concepts for rehabilitation services for hard to reach populations through assembling multiple sources and types of available evidence. Emphasis will be on comprehensive coverage, including identifying high-level conceptual observations.

Methods: The methodologies proposed by Arksey & O'Malley's and Joanna Briggs Institute (JBI) will be consulted. The recommendations to advance scoping studies by Levac et al. will also be reviewed.

Data extraction: Data will be extracted from included papers by two independent reviewers using an extraction form proposed by the authors. Extracted data will include details about the population, study methods, health outcomes and key findings relevant to the review objective.

Conclusions: The data collected from the proposed scoping review will identify the models that have been implemented to deliver rehabilitation services for hard to reach populations. This information will assist in identifying where there may be additional opportunities to enhance service provision and develop partnerships to provide physiotherapy and occupational therapy services for hard to reach populations.

Abbreviations: ISL: Interdisciplinary Service Learning; MACH²OPE: Helping Hamiltonians through Occupational Therapy and Physiotherapy Engagement; OT: Occupational Therapists; PT: Physiotherapists; QOL: Quality of Life.

Introduction

Rehabilitation is a set of interventions designed to reduce disability, and optimize functioning in individuals with health conditions, such as disease, injury, trauma, aging, stress, or genetic predisposition, in interaction with their environments [1]. The field of rehabilitation is primarily focused on optimizing the function of persons with health conditions to promote independence [2]. The overall need for rehabilitation care is steadily increasing as global trends indicate an escalation in injuries and diseases in an aging population [2]. Timely access to health services, including rehabilitation, is critical to promote and sustain health [3].

Physiotherapy is a branch of rehabilitation that assists individuals to maximize their quality of life by assisting them in developing and maintaining their movement and function [4]. Physiotherapy encompasses health prevention, treatment/intervention, habilitation and rehabilitation to maximize quality of life and movement potential [4]. Occupational therapy is also a branch of rehabilitation and is directly involved with promoting health and well-being through occupation [5]. Occupational therapists (OTs) enable people to participate in the activities of everyday life by working with people and their environments and communities [5]. Both professions are client centred and primarily focused on improving the quality of life (QOL) for those affected by health conditions. Despite the importance of both physiotherapy and occupational therapy, equitable access to these services continues to be a source of concern for many people.

The increasing need for rehabilitation services, including physiotherapy and occupational therapy, may be magnified in hard to reach populations. Hard to reach populations are defined as subgroups of individuals that may be difficult to involve in the provision of health services across the health spectrum due to their physical and geographic locations or their social and /or economic situations [6]. Evidence suggests that in many locations, people who are part of migrant and ethnic minorities use significantly fewer services despite having greater health care and associated financial means to access health services [3]. There is currently a lack of research investigating what the physiotherapy (PT) and occupational therapy (OT) service needs are for hard to reach populations, the best practices for rehabilitation service delivery and the health outcomes for individuals from hard to reach population sub groups who receive PT and OT services.

Examples of innovative models have been implemented to tackle the growing problem of limited access to rehabilitation services due to economic, social or political barriers. For example, Interdisciplinary Service Learning (ISL) has been used to introduce students in health professions to a diverse learning environment while allowing clients to

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receive rehabilitation to improve quality of life [7]. This learning model has far-reaching effects as students who have participated in ISL have subsequently reported an increased desire to continue working for social justice [7]. However, there is a lack of research on service delivery models for hard to reach populations and associated outcomes.

The MAC H²OPE clinic (Helping Hamiltonians through Occupational Therapy and Physiotherapy Engagement) was established to provide rehabilitation needs to persons who have limited or no access to physiotherapy and occupational therapy services in Hamilton, Ontario, Canada. The clinic was established in 2013. The clinic operates using an ISL delivery model; however, optimal service delivery continues to evolve at this clinic. To better inform future directions for the MAC H²OPE clinic, a scoping review is being undertaken to ascertain what models of occupational therapy and physiotherapy service delivery have been successfully implemented with hard to reach populations and their resulting health outcomes. Specifically, the purpose of the proposed scoping review is to identify the key concepts for OT and PT services for hard to reach populations through assembling multiple sources and types of available evidence [8,9]. The emphasis of this scoping study will be on comprehensive coverage, including identification of high-level conceptual observations [8,9]. For the purposes of this scoping review, hard to reach populations were defined as those sub-populations that remain a growing concern in the field of rehabilitation but have limited access to these services due to economic, social or political barriers.

Review question

The research question will guide this scoping review is: What model(s) of occupational therapy and /or physiotherapy service delivery have been implemented with hard to reach populations?

Inclusion criteria

Participants: This review will consider studies that discuss the delivery of physiotherapy and/or occupational therapy services for hard to reach populations (i.e. individuals who are disabled, immigrants, refugees, migrants, homeless, addicted to alcohol/drugs, sex workers, sex and/or gender minorities, transient, and/or incarcerated) and who are 18 years of age or older.

Concept: The concepts that will be studied in this scoping review are the rehabilitation needs and strategies to support the delivery of occupational therapy and physiotherapy services for hard to reach populations. Additionally, the health outcomes for hard to reach individuals who do and those who do not receive rehabilitation services will be explored.

Context: Studies completed in community or transitional care settings in high income countries, will be included.

Types of sources

This scoping review will consider experimental and quasi-experimental study designs including randomized controlled trials, non-randomized controlled trials, before and after studies and interrupted time-series studies. In addition, analytical observational studies including prospective and retrospective cohort studies, case-control studies and analytical cross-sectional studies, as well as scoping reviews will be considered for inclusion. This review will also consider descriptive observational study designs including case series, individual case reports and descriptive cross-sectional studies for inclusion. Qualitative studies will be considered that focus on qualitative data including, but not limited to, designs such as phenomenology, grounded theory, ethnography, qualitative description, action research and feminist research. In addition, systematic reviews that meet the inclusion criteria and text and opinion papers will also be considered for inclusion in this scoping review.

Proposed eligibility criteria: Articles published in the year 2000 or later will be included to ensure that the literature reviewed is relevant to the current environment and the status of physiotherapy and occupational therapy resources for hard to reach populations. In addition, only articles published in English will be considered.

Methods

To complete this proposed scoping study the methodology proposed by Arksey & O'Malley's [10] and the Joanna Briggs Institute (JBI) [11] will be consulted. In addition, the recommendations to advance the methodology of scoping studies by Levac et al. [9] will be reviewed. Specifically, the proposed stages for this scoping review are [9-11].

1. Identify the research question using the Population, Concept and Context framework
2. Publish a protocol
3. Identify relevant studies
4. Select studies for detailed analysis
5. Extract and chart the data
6. Collate, summarize, and report the results.

The PRIMSA Extension for Scoping Reviews (PRIMSA-ScR) will guide the reporting of this scoping review protocol (Table 1) and the final scoping review [12].

Search strategy

The search strategy aims to find both published and unpublished studies. A preliminary search was completed in Ovid MEDLINE (1946 to April 2018). In the preliminary search, physical therapy specialty and occupational therapy were the key subject headings used in the search strategy. To address hard to reach populations in the preliminary search, the terms: Vulnerable Populations, Homeless Persons, Urban Population, Poverty, Alcoholics, Criminals, Disabled Persons, Emigrants/Immigrants, Homeless Persons, Medically Uninsured, Refugees, Sex Workers, Sexual and gender minorities, Transients and Migrants were used. The text words contained in the title and abstracts as well as the index terms used to describe the articles were analyzed from the results of the preliminary search. This informed the development of the search strategy that will be used for each information source. A full search strategy for Ovid Medline is detailed in Appendix 1.

Information sources: Six electronic databases: Ovid AMED (1985-April 2018), EBSCOhost CINAHL (1987-2018), Ovid Medline (1946 to April 2018), Ovid Embase (1996-April 2018), Ovid Healthstar (1966–April 2018), and Ovid PsycInfo (1806-April 2018) will be used for database searching. Unpublished documents or grey literature will not be included in this review due to limited resources.

Study selection

Following the search, all identified citations will be collated and uploaded into Rayyan QCRI [13]. Titles and abstracts will then be screened by two independent reviewers for assessment using the inclusion criteria for the review. Studies that may meet the inclusion criteria will be retrieved in full and their details imported into Rayyan. The full text versions of selected studies will be retrieved and assessed in detail using the inclusion criteria. Full text studies that do not meet

Table 1. PRISMA Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist

Section	Item	Prisma-Scr Checklist Item	Reported on Page #
Title			
Title	1	Rehabilitation for Hard to Rearch Populations: A Scoping Review Protocol	1
Abstract			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	2
Introduction			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	3-5
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	5-7
Methods			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	N/A because this is a protocol
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale.	7
Information sources*	7	Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	8
Search	8	Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated.	8
Selection of sources of evidence†	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	9
Data charting process‡	10	Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators.	9
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	10
Critical appraisal of individual sources of evidence§	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	N/A because this is a protocol
Synthesis of results	13	Describe the methods of handling and summarizing the data that were charted.	N/A because this is a protocol
Results			
Selection of sources of evidence	14	Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	N/A because this is a protocol
Characteristics of sources of evidence	15	For each source of evidence, present characteristics for which data were charted and provide the citations.	N/A because this is a protocol
Critical appraisal within sources of evidence	16	If done, present data on critical appraisal of included sources of evidence (see item 12).	N/A because this is a protocol
Results of individual sources of evidence	17	For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives.	N/A because this is a protocol
Synthesis of results	18	Summarize and/or present the charting results as they relate to the review questions and objectives.	N/A because this is a protocol
Discussion			
Summary of evidence	19	Summarize the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	N/A because this is a protocol
Limitations	20	Discuss the limitations of the scoping review process.	N/A because this is a protocol
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps.	N/A because this is a protocol
Funding			
Funding	22	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	10

JBI: Joanna Briggs Institute; PRISMA-ScR: Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews.

*Where sources of evidence (see second footnote) are compiled from, such as bibliographic databases, social media platforms, and Web sites.

†A more inclusive/heterogeneous term used to account for the different types of evidence or data sources (e.g., quantitative and/or qualitative research, expert opinion, and policy documents) that may be eligible in a scoping review as opposed to only studies. This is not to be confused with information sources (see first footnote).

‡The frameworks by Arksey and O'Malley [6] and Levac and colleagues [7] and the JBI guidance [4,5] refer to the process of data extraction in a scoping review as data charting.

§The process of systematically examining research evidence to assess its validity, results, and relevance before using it to inform a decision. This term is used for items 12 and 19 instead of "risk of bias" (which is more applicable to systematic reviews of interventions) to include and acknowledge the various sources of evidence that may be used in a scoping review (e.g., quantitative and/or qualitative research, expert opinion, and policy document).

From: Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. Ann Intern Med. 169: 467-473. doi: 10.7326/M18-0850

Reviewer's Initials:			Date:
First author's last name:			Year:
Eligibility:			
☐ PT or ☐ OT or ☐ Both		☐ English language	
☐ Age ≥18 yrs.		☐ Vulnerable population	
☐ High income country (Specify):		☐ Model of service provision or intervention	
Article type:			
☐Non-experimental design	☐Experimental design		
☐Qualitative study ☐Editorial ☐Practice guideline ☐Review ☐Other:	Interventional study ☐Pre-post ☐Non-randomized trial ☐RCT ☐Other:	Observational study ☐Cross sectional ☐Cohort ☐Other:	
Article details:			
Population(s)			
☐ Homeless	☐ Offenders	☐ Economically disadvantaged	
☐ Immigrants	☐ Refugees	☐ Medically uninsured	
☐ Migrants	☐ Alcoholics	☐ Sex workers	
☐ Veterans	☐ Drug users	☐ Sex and gender minorities	
☐ Other (Specify):			
Setting	☐Community (Specify):		
	☐Transitional care	☐Other (Specify):	
Research Question/Purpose:			
The paper describes an ☐ Intervention or ☐ Model of service delivery			
Theoretical Framework or Model Yes ☐ No ☐ Details:			
Intervention details:			
☐ Chronic disease management/self-management	☐ Fall prevention		
☐ Pain management/self-management	☐ Exercise program/prescription		
☐ Return to work	☐ Mobility aid/equipment prescription		
☐ ADL training	☐ Other:		
Format/Delivery	Delivered by	Intensity, frequency, duration	
☐ Face to face, individual ☐ Face to face, group ☐ Telephone ☐ Online ☐ Other:			
Additional details about the intervention			
Model of Service delivery			
Describes the role of the OT/PT ☐ Yes ☐ No Please provide details.			
Describes OT/PT needs of hard to reach populations? ☐ Yes ☐ No			
☐Physical health problem ☐Mental health problem ☐Navigating community resources/programs ☐ General health/lifestyle issue ☐Referral to other health care providers ☐ Referral to other sectors (Social services) ☐Other:			
Describes facilitators and barriers to service delivery in hard to reach populations? **☐ Yes ☐ No** **Barriers:** **Facilitators:**			
Describes health outcomes used in hard to reach populations? ☐ Yes ☐ No Please list.			
For experimental studies only			
Sample Size:	**Total**	**Int:**	**Control:**
Groups' Mean Age:	**Int:**	**Control:**	
Sex	Int: %F %M %Other	Control: %F %M %Other	
Results			

Figure 1. Proposed data extraction tool

the inclusion criteria will be excluded and reasons for exclusion will be provided in an appendix in the final systematic review report. Kappa (k), a chance-corrected measure of agreement between two reviewers on their selection of abstracts will be calculated [14] at this stage of the review. The results of the search will be reported in full in the final report and presented in a PRISMA flow diagram. Any disagreements that arise between the reviewers will be resolved through discussion, or through the involvement of a third reviewer.

Data extraction

Data will be extracted from papers included in the scoping review by two independent reviewers using a data extraction tool developed by the authors. The data extracted will include specific details about the population, study methods, health outcomes and key findings relevant to the review objective. A draft example of the data extraction form is included (Figure 1). The draft data extraction tool will be modified and revised as necessary during the process of extracting data from each included study. Modifications will be detailed in the full scoping review report. Any disagreements that arise between the reviewers will be resolved through discussion, or through the involvement of a third reviewer. Authors of papers will be contacted to request missing or additional data, as required.

Risk of bias in this study will be mitigated by ensuring that each group of articles will be reviewed in pairs and conflicts will be discussed among the pair prior to finalizing agreement. The selected articles will be pooled and distributed again. A kappa statistic will be calculated to provide an estimate of agreement beyond chance [14].

Data presentation

The extracted data will be presented in tabular form in a manner that aligns with the objectives of this scoping review. A narrative summary will accompany the charted results and will describe how the results relate to the review's objective and questions.

Conclusion

The results of this scoping review will be used to provide a broad view of the model(s) of occupational therapy and /or physiotherapy service delivery that have been implemented with hard to reach populations. This information will also provide insight into potential areas for future development and partnerships for the provision of rehabilitation services for hard to reach populations.

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Declaration of Conflicting Interests

The authors declare that there is no conflict of interest.

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None

Authorship and contributorship

Contributions

All authors contributed to the development of the research question and selection criteria. JR, SW, LL, VDBH provided expertise on the methodology of developing a scoping review. HK, JR, SS and SW drafted the manuscript. All authors read, provided feedback and approved the final manuscript.

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