

Review Article

Contribution of occupational therapists to the field of risk and disaster management: a scoping review protocol

A contribuição de terapeutas ocupacionais no domínio da gestão de risco e desastres: um protocolo de revisão de escopo

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Abstract

Introduction: Disasters bring human, socioeconomic, and environmental consequences and exacerbate situations of vulnerability. Both highly industrialized core countries and those facing economic difficulties are subject to these events. In Brazil, the COVID-19 pandemic and the collapse of dams highlight difficulties in anticipating and responding to these types of events. Actions of occupational therapy in the field of emergencies and disasters are scarce in the literature, notably in the sphere of prevention. **Objective:** To explore the evidence of the contribution of occupational therapists in the field of risk management and disasters based on the characteristics, priorities, and main areas of interest of intellectual production in occupational therapy. **Method:** A comprehensive search will be conducted in the journals *Disasters, Hazards & Crisis in Public Policy, International Journal of Mass Emergencies and Disasters, and Risk, International Journal of Risk Reduction, and Journal of Contingencies and Crisis Management*, as well as in the databases Occupational Therapy Literature Search Service (OTDBASE), PubMed, and Web of Science. **Inclusion Criteria:** Actions and experiences in the field of occupational therapy, notably those of occupational therapists in risk and disaster management, found in peer-reviewed studies adopting quantitative, qualitative, and mixed methods, in Spanish, English, and Portuguese, without temporal restriction. The approach advocated by the Joanna Briggs Institute (JBI) for study selection, critical appraisal, and data collection and synthesis will be used.

Keywords: Disasters, Prevention and Mitigation, Risk Management, Occupational Therapy, Review Literature as Topic.

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Resumo

Introdução: Desastres trazem consequências humanas, socioeconômicas e ambientais e agravam situações de vulnerabilidade. Tanto países centrais, altamente industrializados, como países com dificuldades econômicas estão sujeitos a esses eventos. No Brasil, a pandemia de COVID-19 e o rompimento de barragens evidenciam dificuldades em se antecipar e responder esses tipos de eventos. Ações da terapia ocupacional no campo das emergências e desastres são escassas na literatura, notadamente na esfera da prevenção. **Objetivo:** Explorar as evidências da contribuição de terapeutas ocupacionais no domínio da gestão de risco e desastres a partir das características, prioridades e principais áreas de interesse da produção intelectual em terapia ocupacional. **Método:** Uma pesquisa abrangente será conduzida nos periódicos *Disasters, Hazards & Crisis in Public Policy*, *International Journal of Mass Emergencies and Disasters*, and *Risk*, *International Journal of Risk Reduction* e *Journal of Contingencies and Crisis Management*, assim como nas bases de dados *Occupational Therapy Literature Search Service (OTDBASE)*, *PubMed* e *Web of Science*. **Critérios de inclusão:** Ações e experiências no âmbito da terapia ocupacional, notadamente aquelas de terapeutas ocupacionais na gestão de riscos e desastres, encontradas em estudos revisados por pares, que adotem métodos quantitativos, qualitativos e mistos, nos idiomas espanhol, inglês e português, sem restrição temporal. A abordagem preconizada pelo Joanna Briggs Institute (JBI) para seleção de estudos, avaliação crítica, extração e síntese de dados será utilizada.

Palavras-chave: Desastres, Prevenção e Mitigação, Gestão de Riscos, Terapia Ocupacional, Literatura de Revisão como Assunto.

Introduction

Disasters bring human, material, environmental, and socioeconomic consequences. Both highly industrialized core countries and those facing severe economic difficulties are subject to the negative effects of these events. The occurrence of disasters has been increasing globally (Office for the Coordination of Humanitarian Affairs, 2020).

The year 2020 was the hottest on record worldwide and presented the largest number of climate-related disasters. Disasters of climate origin were responsible for the 389 recorded events, resulting in 15,080 deaths, 98.4 million people affected, and economic losses of nearly USD 171.3 billion (Centre for Research on the Epidemiology of Disasters, 2021). These figures do not include the effects of the COVID-19 pandemic, which claimed 14.9 million lives between 2020 and 2021 (World Health Organization, 2022).

Latin America and the Caribbean, the second most disaster-affected region in the world (Office for the Coordination of Humanitarian Affairs, 2023) after Asia-Pacific (Office for the Coordination of Humanitarian Affairs, 2023), are slowly advancing with sufficient disaster prevention measures (Office for the Coordination of Humanitarian Affairs, 2020). Only in 2012 were disaster actions legally established in Brazil (Almeida et al., 2016; Brasil, 2012), and Brazilian occupational therapists have rarely officially been part of these efforts.

Occupational therapy is a field of knowledge and intervention in health, education, and the social sphere. The professional identity of occupational therapists is related to

promoting participation and inclusion in social life, as well as engaging in meaningful occupations for the emancipation and autonomy of people (World Federation of Occupational Therapists, 2017). Considering the incalculable human and material impact imposed by disasters, the participation of occupational therapists in disaster risk management (DRM), mainly in the implementation of prevention actions and in disaster risk reduction (DRR) is essential.

DRM applies policies and strategies of DRR to prevent new disaster risks (prospective activities), reduce or eliminate existing disaster risks (corrective activities), and manage residual risks that cannot be effectively reduced (compensatory activities including preparation, response, and recovery actions) (United Nations Office for Disaster Risk Reduction, 2009; United Nations General Assembly, 2016). Meanwhile, DRR consists of developing goals and objectives defined in strategies and plans to prevent new disaster risks, reduce existing ones, and manage residual risks, i.e., it encompasses the objective of DRM. Thus, both contribute to reducing disaster losses, as well as strengthening resilience and agency, and consequently, achieving sustainable development (United Nations General Assembly, 2016).

DRM and DRR involve different sectors, disciplines, and perspectives (Rushford & Thomas, 2015; United Nations General Assembly, 2016; United Nations Office for Disaster Risk Reduction, 2015). In recent decades, occupational therapists have expanded their role in compensatory management, i.e., in response and recovery actions to disasters (American Occupational Therapy Association, 2006, 2014, 2017; Precin, 2003; Santos et al., 2020; World Federation of Occupational Therapists, 2017). However, their actions seem rare in prospective management and participation in DRR. Similarly, there is little evidence considering preventive actions aimed at disaster risk that consider the irrecoverable value of lives, groups, and communities to anticipate, resist, and/or confront them. Global and national needs, goals, and strategies to be followed and achieved are expanding (Ching & Lazaro, 2021; United Nations Office for Disaster Risk Reduction, 2015). Therefore, reflecting on these and incorporating them into the actions of occupational therapists is a responsible act, especially considering the diversity of people, communities, countries, and regions in their political, social, environmental, economic, and cultural aspects.

As it is known, scoping reviews are essential in cases where topics have not yet been sufficiently studied (Tricco et al., 2016, 2018)). In a meeting held in Toronto in 2016, the importance of scoping reviews was highlighted, mainly for the following reasons: they systematically map the available literature on a topic and identify key concepts, theories, sources of evidence, and research gaps (Tricco et al., 2016, 2018)). Therefore, this scoping review can be a precursor to a systematic review, identifying the types of evidence available in the field of emergencies and disasters and clarifying definitions and core concepts in the literature about the characteristics, priorities, and main areas of interest of occupational therapy actions in DRM and DRR, thus examining how research is conducted in this field (Munn et al., 2018; Peters et al., 2020; Tricco, 2020).

A preliminary search was conducted at the MEDLINE, Cochrane Systematic Reviews, Joanna Briggs Institute (JBI) Evidence Synthesis, and Open Science Framework (OSF) databases, and no current or ongoing systematic reviews were found (Peters et al., 2020) (Appendix I¹, Table 1A). Therefore, this scoping review aims to

¹ Available only in the Portuguese version of the article.

explore the evidence of the contribution of occupational therapists in the domain of DRM, with an emphasis on prevention, based on the characteristics, priorities, and main areas of interest of their intellectual production.

Method

The proposed scoping review will be conducted according to the methodology recommended by the JBI (Peters et al., 2020). The protocol was registered on the OSF (Ribeiro & Magalhães, 2023). Following the JBI's guidelines (Peters et al., 2020, 2022), the research question was based on the PCC acronym [Population (or Participants), Concept, and Context].

Research Question

“What are the characteristics, priorities, and main areas of interest of occupational therapy actions in disaster risk management (DRM) and disaster risk reduction (DRR)?”

Inclusion Criteria

Studies in Spanish, English, and Portuguese will be included. Aiming at identifying the starting point of possible actions of occupational therapists in DRM and DRR, there will be no time restriction on the studies to be considered.

Participants

The scoping review will consider studies that include occupational therapists in practical and/or theoretical contexts of occupational therapy in the fields of DRM and DRR. Studies addressing the actions (assistance, perceptions and experiences, and/or teaching strategies) of occupational therapists as part of multi-professional, sectoral, and/or sectional programs will be eligible, provided that data related to occupational therapists can be segregated and extracted.

Concept

The scoping review plans to explore the extent of occupational therapy actions in DRM and DRR. Therefore, studies focusing on any aspect of prospective, corrective, and/or compensatory management, whether in the execution of activities or the development of policies and strategies, will be included. Disasters to be included in the study must adhere to the standards of the open-ended intergovernmental working group of experts on indicators and terminology relating to DRR established by the General Assembly in its resolution 69/284, consistent with the United Nations International Strategy for Disaster Reduction (United Nations Office for Disaster Risk Reduction – UNDRR). This strategy describes them as

[...] serious disruptions to the functioning of a community or society, at any scale, resulting from hazardous events that interact with conditions of exposure,

vulnerability, and capacity, leading to one or more of the following: human, material, economic, and environmental losses and impacts (United Nations General Assembly, 2016, p. 13; our translation; United Nations Office for Disaster Risk Reduction, 2015).

The scoping review will also use the Brazilian classification and coding of disasters by the National System of Civil Protection and Defense (Brasil, 2012).

Context

There will be no contextual restrictions; therefore, studies from various geographical, ethnic, social, cultural, and/or political localities involving the contribution of occupational therapists to DRM and DRR will be considered.

Type of Research

The scoping review will encompass quantitative, qualitative, and mixed studies. Experimental and quasi-experimental study designs will be considered, as well as randomized and non-randomized clinical trials, before-and-after studies, and time series. Observational studies, including cohort, case-control, and cross-sectional studies, will also be analyzed. The scoping review will also consider case series and reports, as well as protocols and clinical practice guidelines.

Search Strategy

As outlined, a three-step search strategy will be employed for this scoping review (Peters et al., 2020). Accordingly, an initial search, confined to MEDLINE via PubMed, was conducted by a reviewer with previous experience to identify articles on the topic, as per Table 1. Following this, the words in the titles and abstracts and the terms frequently used in the articles were analyzed to develop a comprehensive search strategy in MEDLINE via PubMed. This search was conducted on 24 July 2023 using the “advanced search” feature with English descriptors via MeSH (Medical Subject Headings) combined with the Boolean operators OR and AND.

Table 1. Search strategy in the MEDLINE database via PubMed. São José do Rio Preto, São Paulo, 2023.

Search	Mapping of terms	Retrieved articles
1	“disaster” OR “risk management” OR “disaster risk management” OR “disaster risk reduction”	161,837
2	“occupational therapy” OR “occupational therapist”	41,646
3	1 AND 2	152

Source: Prepared by the authors, 2023.

In response to the initial search, an adjusted search will be conducted across all selected databases, considering the use of descriptors in Spanish, English, and Portuguese from the databases detailed in Table 2. Synonyms and alternative terms to

the keywords of the initial search will be included. The formulation of the search strategy was designed according to the specificities of each database search system.

Table 2. Selected databases and languages.

Database	Language
<i>Descritores em Ciências da Saúde (DeCS)</i>	Spanish and Portuguese
<i>Estrategia Internacional para la Reducción de Desastres de Las Américas (EIRD)</i>	Spanish
Medical Subject Headings (MeSH)	English
Thesaurus	Spanish, English, and Portuguese
<i>Vocabulário Controlado sobre Desastres</i>	Spanish, English and Portuguese

Source: Prepared by the authors, 2023.

Subsequently, a complementary search will be conducted by a professional librarian from the Federal University of São Carlos (UFSCar) to assist in identifying additional studies. Similarly, the cross-reference lists of the articles selected for the final sample will be examined. If necessary, the reviewers will contact the authors of the primary studies to obtain extra information.

A comprehensive search will be conducted in the following journals: Disasters, Hazards & Crisis in Public Policy; International Journal of Mass Emergencies and Disasters, and Risk; International Journal of Risk Reduction; Journal of Contingencies and Crisis Management, as well as in the databases Occupational Therapy Literature Search Service (OTDBASE), PubMed (MEDLINE), and Web of Science.

Study/Source of Evidence Selection

After the search, all identified citations will be compiled and uploaded to the Rayyan software (Qatar Computing Research Institute, Doha, Qatar) for identification and removal of texts in duplicate. The titles and abstracts will be reviewed by two reviewers and then imported into the reference manager EndNote (Clarivate Analytics, PA, USA). Potentially relevant and available studies will be retrieved in full, and their citation details imported into the JBI System for the Unified Management, Assessment, and Review of Information (JBI SUMARI; JBI, Adelaide, Australia). The complete list of selected citations will be organized into folders and assessed in detail against the inclusion criteria by two independent reviewers. Unavailable studies will be excluded. Any disagreements that arise between the reviewers at each stage of the study selection process will be resolved through discussion or by consulting a third reviewer. The results of this selection will be presented in a flowchart according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews (PRISMA-ScR).

Data Collection

Data from the studies included in the scoping review will be extracted by two independent reviewers using a JBI data extraction tool (Peters et al., 2020) (Appendix

II², Table 2A) adapted by the authors according to Table 3. Extracted data will include specific details about the **Population, Concept, Context**, study methods, and main findings relevant to the review's objective. If necessary, the data extraction tool may be modified or revised during the process. Any modifications will be detailed in the full scoping review. Any disagreements that arise between the reviewers will be resolved through discussion or by consulting a third reviewer.

Table 3. Data extraction instrument.

Detail and Characteristics of the Source of Evidence
Scoping Review Title
Objective
Research question
Inclusion Criteria (Population, Concept, Context)
Type of Study (Method)
Citation details (author, journal, volume, edition, year of publication, title)
Type of disaster and year of event
Theoretical-practical context of occupational therapy
Theoretical-methodological framework
Purpose of the study
Vulnerability (Approach)
Type of occupational therapy approach
Conclusion (Participants, Concept, Context)

Source: Prepared by authors, 2023.

Data analysis and Presentation

The extracted data will be presented in the form of diagrams, maps, and/or tabular charts aligned with the objective of this scoping review. Quantitative and qualitative analyses, through description and categorization of key components, will accompany the tabulated and mapped results, describing how these results relate to the objective and the question of the review.

Possible Contributions

The review aims to advance in the combination of previous information and knowledge about the practice of occupational therapists in emergencies and disasters. It seeks to identify differences caused by geographical locations, social contexts, resources, the adoption of coherent, coordinated, and multisectoral actions, and prior engagement in the formulation of DRR policies and strategies. This could provide a foundation for the development and improvement of occupational therapists' actions in this field, with special attention to their educational, research, and service delivery implications.

² Available only in the Portuguese version of the article.

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Author's Contributions

Fernanda Laís Ribeiro was responsible for the conception and writing of this study. Lilian Magalhães supervised the study. All authors approved the final version of the text.

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