

Literature Review

# How is resilience conceptualized and operationalized in occupational therapy and occupational science literature? Protocol for a scoping review

*Como a resiliência é conceituada e operacionalizada na literatura de ciência ocupacional e terapia ocupacional? Protocolo para uma revisão de escopo*

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## Abstract

**Introduction:** Resilience is a commonly discussed term describing the ability to overcome, adapt to, or cope with stressful/disruptive events. Although researchers and practitioners define resilience in diverse ways – e.g., psychological or disaster resilience – the concept fundamentally encompasses perseverance through adversity. As experts in the interplay between individuals, environments, and occupations, occupational therapists and occupational scientists have great potential to understand and enable resilience, with some similar concepts appearing in occupational theories (e.g., occupational adaptation). However, there are no published reviews of resilience in the occupation-focused literature. **Objective:** We will explore how resilience is conceptualized and operationalized in the occupational therapy and occupational science research literature. **Method:** Guided by the Joanna Briggs Institute scoping review methodology, we will search library databases and other sources for relevant records. Two team members will screen records for inclusion, with discrepancies settled by a third person. We will include English-language literature (including research papers, editorials, dissertations, etc.) published since 1990 which 1) contains the word root ‘resilien\*’ and 2) is

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occupation focused, according to our criteria (occupational therapist/occupational scientist co-authors or research participants; and/or published in occupation-focused periodical). We will report key information of included literature, such as methodology and resilience theories discussed. **Results:** Our study is ongoing at the time of publication; this manuscript reports its protocol without results. **Conclusion:** Findings will be useful for clinicians and researchers looking for occupational conceptualizations of resilience. From a social justice perspective, our review may highlight evidence that occupational engagement can foster resilience among marginalized communities.

**Keywords:** Resilience, Psychological, Research Design, Review Literature as Topic, Social Justice.

### Resumo

**Introdução:** Resiliência é um termo que descreve a habilidade de superar, adaptar ou lidar com eventos estressantes ou perturbadores. Embora pesquisadores e profissionais definam resiliência de diversas maneiras – como resiliência psicológica ou a desastres - o conceito fundamentalmente engloba perseverança no enfrentamento de adversidades. Como especialistas na interação entre indivíduos, comunidades, ambientes e ocupações, terapeutas ocupacionais e cientistas ocupacionais têm potencial para compreender e propiciar a resiliência, com alguns conceitos semelhantes (como adaptação ocupacional). Entretanto, não há nenhuma revisão publicada sobre resiliência na área. **Objetivo:** Explorar como a resiliência é conceituada e operacionalizada na literatura científica de terapia ocupacional e ciência ocupacional. **Método:** Guiados pela metodologia para revisões de escopo proposta pelo Instituto Joanna Briggs, buscou-se por documentos em bases de dados científicas e outras fontes. Dois membros da equipe revisaram documentos para inclusão e as discrepâncias foram resolvidas por uma terceira pessoa. Utilizou-se literatura em inglês (artigos de pesquisa, editoriais, dissertações etc.) publicada desde 1990 que: (1) contenha ‘resilien\*’ e (2) seja focada na ocupação, desde que: terapeutas ocupacionais ou cientistas ocupacionais fossem coautores ou participantes da pesquisa; e/ou publicada em periódico focado em terapia ocupacional/ciência ocupacional. Foram reportadas as principais informações dos documentos incluídos, como a metodologia e as teorias de resiliência. **Resultados:** Este estudo está em andamento; foca-se aqui no protocolo de pesquisa, sem resultados. **Conclusão:** As discussões serão úteis para profissionais na prática clínica e pesquisadores buscando por uma conceituação ocupacional de resiliência. De uma perspectiva de justiça social, essa revisão pode destacar evidências de que o engajamento com ocupações pode promover resiliência entre comunidades marginalizadas.

**Palavras-chave:** Resiliência Psicológica, Projetos de Pesquisa, Literatura de Revisão como Assunto, Justiça Social.

## Introduction

When individuals, communities, and societies are faced with stressors and life disruptions, they must draw upon their resilience to adapt to and cope with these events

(Reid & Botterill, 2013). Factors contributing to resilience may be internal (e.g., personality characteristics) or external (e.g., government policies). Since the beginning of the coronavirus pandemic in 2019, individuals, communities, organizations, nations, and policymakers worldwide have been grappling with the question of how to become more resilient to its disruptive and traumatic effects (Walsh, 2020). This question has inspired thoughtful exploration by researchers in occupational therapy and occupational science, such as Brown (2021), Hammell (2020), and Zafran (2020) who each articulated the centrality of engagement in occupation as a resilience facilitator in the era of COVID-19. However, the study of resilience as an academic endeavour predates the pandemic by several decades.

Academics began theorizing about the concept of resilience during the mid-20th century, with particularly influential writing coming from Werner and Smith's research in developmental psychology conducted on the island of Kaua'i (Werner et al., 1971; Werner & Smith, 1979). Their work was part of a longitudinal study in which researchers followed 698 individuals born on the Hawaiian island over the course of their lives, reporting at multiple time points on participants' economic, functional, health and psychosocial outcomes (Werner & Smith, 2001)—with the first publication arising from this study reporting the baseline sociodemographic and community health status on the “Garden Isle” shortly before their birth (Yerushalmy et al., 1956). Many participants experienced social challenges during their early life, such as malnutrition, poverty, and abuse. Some of these individuals continued to have socioeconomic and health-related difficulties as they aged, but for most “[...] the journey to midlife...was more often shaped by extraordinary resilience and their capacity to recover and overcome the problems they had encountered in childhood and adolescence” (Werner & Smith, 2001, p. 55). Werner and Smith reported common behavioural patterns among those they deemed the resilient individuals (e.g., higher volunteerism, more social connections) and the first author continued to write about resilience from a developmental perspective throughout her career (Werner, 2013). In recent years, this type of longitudinal research has received criticism for perpetuating stereotypes about marginalized communities and not adequately involving the participating communities (Hutcheon & Lashewicz, 2014; Pickren, 2018); however, Werner and Smith's work has inspired many researchers interested in resilience—both in developmental psychology and in other research realms (Masten, 2018; Ferguson & Werner, 2000).

There are many resilience theories being actively explored by researchers, clinicians, policymakers, and community members. For example, some psychologists and anthropologists describe cultural resilience, which refers to both individual resilience to mental health challenges fostered through connecting with one's culture and collective resilience of a cultural group despite influences from factors such as colonialism (Lalonde, 2013). In addition, with an increasing global prevalence of climate change-related disasters such as floods, droughts, and wildfires, emergency response personnel are increasingly discussing disaster resilience as “[...] policies to improve disaster risk reduction and to promote preparedness, response and recovery [...]” (Tiernan et al., 2019, p. 67). At the individual level, physical resilience is conceptualized by gerontologists as “[...] [a]bility to recover or optimize function in the face of age-related losses or disease [...]” (Whitson et al., 2016, p. 289). Meanwhile, economic researchers describe a concept of occupational resilience, which refers to an employment sector's

adaptability to market disruption (Kossek & Perrigino, 2016). Perhaps confusingly, a small number of occupation-focused researchers have recently reported their own identically named but separate theory of occupational resilience, which has some variability in its definitions to date but a shared perspective that resilience underpins much of occupational therapy clinical practice (Brown, 2021; Khuabi, 2018; Muriithi & Muriithi, 2020).

Occupational therapists and occupational scientists specialize in understanding the relationships between individuals, communities, environments, and occupations, which affords them a unique lens to making sense of resilience. In her 1990 Eleanor Clarke Slagle Lecture titled *Resilience and Human Adaptability: Who Rises Above Adversity?*, Susan B. Fine articulated several ways in which occupational therapists foster resilience among clients, including “helping persons find meaning in their crises” and “fostering the functional skills and behaviors that they will need to fulfill their potential” (Fine, 1991, p. 500). Suzanne M. Peloquin cited Fine’s perspective in her own 2005 Eleanor Clarke Slagle Lecture (Peloquin, 2005) and companion 2007 opinion article, in which she called upon the American Association of Occupational Therapists to insert resilience into their list of published core values, describing the concept as one of “[...] the innermost and distinct features of occupational therapy” (Peloquin, 2007, p. 777).

There are many recent examples of occupation-focused articles discussing resilience within both patient populations and the occupational therapy workforce. For example, Rivas et al. (2016) explored the concept using autoethnography in a therapeutic theatre group for children with disabilities. Meanwhile, Pyatak et al. (2018) reported results of a randomized control trial testing the effectiveness of the “Resilient, Empowered, Active Living with Diabetes” occupational therapy intervention, which was found to improve several symptoms among diabetic young adults. Additionally, Brown et al. (2021) examined predictive factors of professional resilience among 135 occupational therapy students in Victoria, Australia during the COVID-19 pandemic, finding social engagement and participation in healthy lifestyles to be associated with higher resilience.

Occupational therapy and occupational science are also rich with theories and clinical practice models sharing characteristics with resilience. For example, the Model of Lifestyle Balance developed from a literature synthesis by Matuska & Christiansen (2008, p. 11) describes how individuals achieve a sense of balance in their occupational repertoire, with balance defined as “[...] the extent to which an individual’s unique patterns of occupation (in context) enable needs essential to resilience, well-being and quality of life to be met” . Seeing the clinical utility of the model, Matuska (2012) created an assessment tool for occupational therapists to use with clients called the Life Balance Inventory, which measures the extent to which respondents experience balance in their occupations. Other occupation-focused constructs which have similarities to resilience include occupational adaptation—the process wherein an individual gains mastery/competence in performing a specific occupation within an environment (Walder et al., 2021)—and occupational gifts—described by Thibeault (2011) as five categories of occupations people can do to foster well-being and resilience.

Despite the presence of resilience in the research and practice of occupational therapy and occupational science, there has yet to be a published review article on the topic. Furthermore, a search of PROSPERO, MEDLINE, the Cochrane Database of Systematic Reviews and the JBI Evidence Synthesis revealed none currently underway.

This leaves a gap in the understanding of how resilience is viewed with an occupational lens.

A scoping review is a research methodology which provides a thorough framework to exploring unanswered questions (Peters et al., 2020). Conducting such a review allows researchers to identify and analyze a range of published literature on a given topic. Different conceptualizations of resilience have been explored in several recent scoping reviews (e.g., Chapman et al., 2020; McDonald et al., 2020; Stacey & Cook, 2019). Meanwhile, researchers have conducted occupation-focused scoping reviews with both clinical (e.g., Constantinidis & Matsukura, 2021; Uys et al., 2020; Wallis et al., 2020) and theoretical (e.g., Hunt & McKay, 2015; Malfitano et al., 2016) investigations. A growing number of occupational therapy scoping review protocol papers have also been published in recent years, allowing the authors to share their research with interested audiences at an earlier stage of their process (Bell & Hallett, 2021; Colquhoun et al., 2017; Nhunzvi et al., 2019; Villas et al., 2020). Inspired by these authors, we propose to conduct a scoping review of resilience published in occupation-focused research literature. Our hope is this review will inspire other researchers to further investigate resilience through an occupational lens. Synthesizing the occupation-focused literature on resilience may also be of interest to resilience researchers in other domains.

### **Study aim and subquestions**

Through conducting a scoping review, we aim to answer the question: How is resilience conceptualized and operationalized in occupational therapy and occupational science research literature?

Some subquestions we hope to answer in this review include:

- Which resilience theories, frameworks, or definitions are described in occupational literature?
- How has the frequency and usage of resilience changed over time in occupation-focused research?
- How do occupation-focused researchers measure resilience?
- What methods and methodologies do occupation-focused researchers use to explore resilience?
- Which populations are most commonly included in resilience research conducted with an occupational lens?

### **Inclusion criteria**

This review will consider occupational therapy and occupational science research literature that uses the root word ‘resilien\*’ (which includes resilience, resiliences, resiliency, resiliencies, resilient, and resiliently) in the title, abstract, keywords, and/or main findings/discussion points.

## **Concept, context and types of sources**

This review will consider articles that are situated in the occupational therapy and occupational science research literature. This will include papers published in occupational therapy or occupational science periodicals, co-authored by an occupational scientist or occupational therapist (as determined by their credentials, affiliations, or author information in the paper), and/or include occupational scientists, occupational therapists, occupational therapy students, or occupational therapy assistants as a specifically-named study population group.

To capture the full range of resilience articles in the occupation-focused research space, we will include literature available in English with no geographic limitations published since 1990—the year of the first published occupational science article (Yerxa et al., 1990).

The included literature will encompass the following categories of retrievable sources indexed in selected library and occupational therapy databases: qualitative, quantitative, and mixed-methods research studies and study protocols published in academic journals and trade publications; conference abstracts; published or unpublished master's theses and doctoral dissertations; opinion papers, clinical practice guidelines, and published versions of lectures; published organizational statements; interviews; books and book chapters; and literature reviews (narrative, systematic, scoping, or other). We will exclude gray literature that is not indexed in our selected databases, such as blog posts, meeting minutes, and other non-indexed electronic resources.

## **Method**

We are following Joanna Briggs Institute (JBI) methodological guidelines for conducting scoping reviews (Peters et al., 2020). As of December 2021, we developed the search strategy and uploaded our library database search results to the screening software tool, as required by JBI for scoping reviews, which we report using past tense below. The not-yet-completed aspects of our methodology are reported in future tense.

### **Search strategy**

With an aim of retrieving all types of sources outlined in our inclusion criteria, our search strategy was collaboratively developed by several team members who are co-authors on this manuscript, including research librarian Stephanie Crosbie, first author and occupational therapist Justin Turner, and UBC professors Dr. Pat Camp (physiotherapist) and Dr. William Miller (occupational therapist). Crosbie, Camp, and Miller have extensive experience and expertise in conducting various types of literature reviews—including scoping reviews—which aided in developing an appropriate search strategy for our study. Meanwhile, Turner and Miller brought their occupation-focused perspectives to creating the search strategy, with both having clinical experience as occupational therapists, and Miller having decades of research experience in occupational science and occupational therapy as a tenured professor in the Department of Occupational Science and Occupational Therapy at UBC.

We undertook several iterations of the search using CINAHL. For the occupation-focused aspect of the search, our strategy included: 1) occupational therapy and occupational science search terms and record indexing categories; and 2) co-authors with an occupational science, occupational therapy, or related affiliation or credential. Our initial iteration of the resilience search component included over 20 synonyms and related terms. In the end, we chose to narrow the resilience search to a smaller number because our scoping review is focused on literature that uses the word resilience in its title, abstract, keywords, or as a major theme or discussion point in full text.

We performed our final search in CINAHL, Medline, Psycinfo, and Web of Science—with specific search strategy terms slightly modified to adhere to each database’s layout. Table 1 shows the general components of our final search strategy, with the exact manifestation varying slightly in each database.

**Table 1.** Elements of our scoping review search strategy. Asterisk denotes truncation (e.g., search term “resilien\*” retrieves resilience/s, resiliency/ies, resilient, and resiliently).

Inclusion criteria	Search strategy
Resilience	Title, abstract, keyword, or indexing: Resilien*, Hardiness, Transformation*, Occupational adaptation*, or Psychological adaptation*
Occupational therapy and occupational science research literature	Title, abstract, keyword, or record’s indexing: Occupation*, Occupational therap*, Occupational scien* Author credential/affiliation: occupational therap*, occupational scien*, OT, OTR, BScOT, MOT, MScOT, DOT, OTD, DipOT, allied health*, physiotherap*, or physical therapy*

Later in our research process, we will screen reference lists of all literature included in the final review for additional publications. We will also contact authors of included literature to inquire whether they have other occupation-focused resilience papers. We will additionally conduct searches of selected occupational therapy literature databases, including OTSeeker (Tooth et al., 2005) and OTDBASE (Ernest, 1990). Based on a reviewer’s suggestion to be as inclusive as possible in our review, we plan to later expand our search to the academic databases Scopus, Proquest, Embase, Sociofile, and ERIC, as well as the thesis databases ProQuest Dissertations & Theses Global; British Library EThOS (Electronic Theses Online Service); DART-Europe E-theses Portal; OATD: Open Access Theses and Dissertations; and EBSCO Open Dissertations.

### Study/source of evidence selection

Our initial four database search results were uploaded into Covidence in June 2021, yielding 12,007 unique results after the software automatically removed duplicate records. To establish consistency during the initial title and abstract screening stage, our research team—which consists of health researchers, occupational therapists, and other rehabilitation clinicians—had several group meetings in which we reviewed 100 individual records together. We then developed a set of criteria for voting “yes” or “no” on whether

a record would proceed to the full text review stage, based on the overarching study inclusion criteria and with a goal of capturing papers authored by occupational therapists and occupational scientists. Next, each screening team member pilot-tested these criteria, with the first author confirming if several pre-identified key papers were accurately selected to move to the full text screen. After this iterative process was complete, we began the title and abstract screening stage (still ongoing as of December 20, 2021), which requires two team members to independently screen each record and discrepancies to be decided by a third individual.

Records which pass the title and abstract review stage will have their full texts retrieved and uploaded to Covidence. Two team members will then independently screen each potentially relevant paper for final inclusion in the scoping review, based on our study's inclusion criteria. At this stage, we will specifically review full texts to determine the affiliations and credentials of coauthors to ensure occupational therapists and occupational scientists are included in the review. Discrepancies at this stage will each be discussed during team meetings to decide on whether to include them. For all papers we deem excludable from the scoping review, we will keep track of their reason for exclusion (e.g., full text not available in English). We will report our process using the Preferred Reporting Items for Systematic Reviews and Meta-analyses for Scoping Reviews flow diagram (Tricco et al., 2018).

### **Data extraction**

Two reviewers will independently extract relevant data from papers using the Covidence system. We will extract information (where applicable) regarding a paper's methodology, date and location of publication, population(s) described, theory/theories of resilience used, connections described between resilience and occupation, tools used to measure resilience, and clinical implications. Discrepancies which arise during data extraction will be discussed and resolved during team meetings. We will also collaboratively adjust and update the extraction tool as needed while going through this stage.

### **Data analyses and presentation**

Since none of our review's objectives relate to evaluating the quality or level of evidence in the occupation-focused resilience literature, we will not incorporate a standardized methodological critique as part of our data analysis. Instead, our summarized study findings will present the characteristics of how occupational therapists and occupational scientists have conceptualized and operationalized resilience.

We will report full findings of data extraction for all included studies in tables. The most common conceptualizations of resilience will be shown graphically in order to demonstrate which theories of resilience occupation-focused researchers most commonly use (e.g., psychological resilience). We will use a figure to represent the most frequent operationalizations of resilience (e.g., assessment tool measures resilience). In order to specifically highlight occupation-focused theories of resilience, we will create a table that includes papers which explicitly describe the concept of occupational



resilience or propose a novel theory of resilience e.g., model of resilience in daily occupations of mothers of children with autism spectrum disorder developed in a grounded theory study (Santoso et al., 2015). We will also write a narrative summary of study results and their relation to our scoping review's objectives.

## **Implications**

The concept of resilience has been identified by many researchers as lacking a clear and concise definition (Moser et al., 2019). The word is also used colloquially in research and popular literature alike, further complicating understandings of resilience. Findings of this scoping review may push occupation-focused researchers to be more deliberate and specific in their written descriptions of resilience. Our findings may also inspire other researchers to further develop occupational conceptualizations of resilience, such as the grounded theory “process of non-resilience” (Rasa et al., 2018, p. 329) or the burgeoning theory of occupational resilience (Brown, 2021; Khuabi, 2018; Muriithi & Muriithi, 2020).

This review may also be of interest to researchers and clinicians in similar areas, such as clinical psychology. For example, in their psychological study, Denckla et al. (2017) measured resilience among South African women who had survived childhood trauma by (in part) assessing their performance in daily functional household tasks, finding a significant link between levels of trauma exposure in early age and living skills in adulthood. The synthesis in our scoping review of occupational therapy and occupational science resilience literature may build upon this work to increase all mental health researchers' understanding of recovery, coping, and adaptation as they relate to performance of meaningful occupations.

Finally, this scoping review may be a helpful starting point to uncover the ways in which theories of resilience could be included in other occupational therapy and occupational science research. For instance, the word “resilience” does not appear in a recent scoping review of occupational therapy practice during natural disasters (Jeong et al., 2016), despite the robust use of resilience in the non-occupational research literature regarding disasters, thereby presenting a missed opportunity for more widely disseminating and contextualizing this occupation-focused research output. This scoping review may also build upon the argument by Rushford & Thomas (2016, p. 305) to embed resilience within our theory of occupational justice, as this will help to “[build] a strong social fabric that provides the emotional, material and structural support to buffer external stress, facilitate adaptation, and enable resilience across individual and social realms and within a dynamic and emergent ecological context”. With climate change disproportionately affecting marginalized communities—and predicted to continue with this pattern—helping facilitate resilience and, thereby, enact occupational justice becomes a paramount concern for occupational scientists and occupational therapists.

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### **Author's Contributions**

Justin Turner, William Cameron Miller, Pat Camp, and Stephanie Crosbie conceptualized this scoping review, including development of its aims and search strategy. Title and abstract screening (including establishing screening criteria, pilot testing the screening tool, and undertaking screening) was completed by Polina Petlitsyna, Holly Reid, Jessica Towle, Madeline Friesen, Mirha Girt, Ivan Kamurasi, Maryke Peter, Alexandra Knox, Ashley Winter, Justin Turner, and Débora Melissa Petry Moecke. Débora Melissa Petry Moecke also translated this manuscript's title, abstract, and keywords from English to Portuguese. Justin Turner was the lead writer for all sections of this article, with input and writing contributions provided by all other co-authors. All authors approved the final version of the text.

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