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Abstract

Occupation is the core focus of the occupational therapy profession and is a complex concept for students to know and understand. The aim of this review was to understand how teaching and learning occupation has been represented by educators and students across qualitative studies in occupational therapy education. A qualitative evidence synthesis was conducted which included searching four databases; CINAHL, Medline, Scopus, and Embase. Research articles were screened using inclusion and exclusion criteria by two reviewers. The search resulted in 328 records being identified, with 13 articles included. The methodological quality of included articles was assessed using the Critical Appraisal Skills Programme (CASP). The CASP information was tabulated and then all studies were compared and contrasted. The key characteristics of each article were entered into Excel, and then analyzed to generate themes. According to the CASP qualitative tool the studies were of reasonable methodological quality, with most studies addressing the majority of questions. Themes that emerged from the article findings were: (1) educators are the instruments of occupation-centered education and (2) learning in context and through doing form distinctive pedagogies. The review provided insights about strategies being used by educators to teach occupation such as teaching it as a concept related to self and as a tool for practice, and the use of active and experiential learning approaches. It was evident that the scholarship for teaching occupation is in its early stages. Further research using diverse methods is needed to support the development of evidence-based guidelines for teaching occupation.

Keywords

Occupation, occupational therapy, education, teaching and learning, qualitative systematic review

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ABSTRACT

Occupation is the core focus of the occupational therapy profession and is a complex concept for students to know and understand. The aim of this review was to understand how teaching and learning occupation has been represented by educators and students across qualitative studies in occupational therapy education. A qualitative evidence synthesis was conducted which included searching four databases; CINAHL, Medline, Scopus, and Embase. Research articles were screened using inclusion and exclusion criteria by two reviewers. The search resulted in 328 records being identified, with 13 articles included. The methodological quality of included articles was assessed using the Critical Appraisal Skills Programme (CASP). The CASP information was tabulated and then all studies were compared and contrasted. The key characteristics of each article were entered into Excel, and then analyzed to generate themes. According to the CASP qualitative tool the studies were of reasonable methodological quality, with most studies addressing the majority of questions. Themes that emerged from the article findings were: (1) educators are the instruments of occupation-centered education and (2) learning in context and through doing form distinctive pedagogies. The review provided insights about strategies being used by educators to teach occupation such as teaching it as a concept related to self and as a tool for practice, and the use of active and experiential learning approaches. It was evident that the scholarship for teaching occupation is in its early stages. Further research using diverse methods is needed to support the development of evidence-based guidelines for teaching occupation.

Occupational therapy is a profession focused on enabling individuals, communities and populations to engage in occupations, which impacts health and wellbeing (World Federation of Occupational Therapists [WFOT], 2017). In order to best support people to participate and engage in their occupations, occupation-centered practice is the primary intention of the profession (Fisher & Bray Jones, 2017). Occupation-centered practice is defined as an "... occupational therapist maintaining

his or her profession-specific perspective and ensuring that he or she places occupation in the center of his or her professional reasoning and links everything he or she does to the core paradigm of occupational therapy” (Fisher & Bray Jones, 2017, p. 241).

It is important that education also adopts an occupation-centered approach, however, it is unclear how this is currently being implemented. Occupation-centered education can be defined as designing all teaching and learning activities, including assessment, to enable students to relate the courses they complete, and the topics they learn, to occupation. Occupation-centered education includes both the everyday micro learning tasks students undertake, and the macro design of an entire curriculum (Hooper et al., 2020). Occupation-centered education should ensure future graduates are prepared to use occupation as the central focus of their practice (Di Tommaso et al., 2016; Fisher, 2013; Whiteford & Wilcock, 2001). Numerous articles recognize the important role that occupation-centered education plays in the transformation of the profession and emphasize the need for students to learn about occupation from both personal and practice perspectives (Hooper, 2006a; Hooper et al., 2018; Price et al., 2017; Whiteford & Wilcock, 2001; Yerxa, 1998). Occupation must therefore be utilized as the central idea in occupational therapy education, however it is not yet known how occupation is being incorporated into education programs.

Occupational therapy degrees are developed based on professional and university specific requirements. International professional requirements are documented in the *Minimum Standards for the Education of Occupational Therapists* published by WFOT (2016). Nationally there are accreditation standards that guide a country’s education programs, such as the *2018 Accreditation Council for Occupational Therapy Education (ACOTE®) Standards* in the United States of America (ACOTE, 2018) and the *Accreditation Standards for Entry-level Occupational Therapy Education Programs* from the Occupational Therapy Council (OTC) of Australia (2018). There are also professional requirements such as the *Australian Occupational Therapy Competency Standards* developed by the Occupational Therapy Board of Australia (OTBA, 2018) that guide the education provided in occupational therapy degrees. Each of these documents present guiding statements and in some cases mandatory requirements, for occupational therapy programs to use in the planning, development, and evaluation of curricula. Over the last six years the WFOT, ACOTE, OTC, and OTBA standards have been revised to include requirements that students acquire an occupational perspective for competent practice. There are currently no guidelines for how these standards can be operationalized or what constitutes occupation-centered education practice in occupational therapy programs (Canty et al., 2020).

Fisher (2013) identified that having an occupation-centered perspective is critical to the purpose of the profession. When occupation is imbedded within a therapist’s perspective, identity, and expertise, practice will inherently be occupation-centered (Fisher, 2013; Wilcock, 2006). However, it is evident that occupational therapists, including recent graduates, find it difficult to implement occupation-centered practice (Di Tommaso et al., 2016; Di Tommaso et al., 2019a; Fisher, 2013; Wilding & Whiteford, 2007). Barriers such as workplace constraints and culture, new-graduate status, and limited emphasis on occupation in education and practice contribute to

this difficulty (Di Tommaso et al., 2016; Gillen & Greber, 2014). Occupation is considered complex in nature, and therefore is recognized as a challenging concept for student occupational therapists to know and understand (Howarth et al., 2018; Molineux, 2010; Wilding & Whiteford, 2007). Despite this challenge, it is essential that graduating students have a strong understanding of occupation and its place in practice (Whiteford & Wilcock, 2001; Yerxa, 1998).

Two international mapping reviews conducted in 2013 and 2015 identified and categorized the topics, themes and impacts of the educational scholarship on the profession (Hooper et al., 2013; Roberts et al., 2015). Each review identified a lack of research involving the procedures, rationales, and outcomes of occupational therapy education and experiences (Hooper et al., 2015; Roberts et al., 2015). Since the completion of these reviews, there has been a number of qualitative studies published about occupation-centered education, which coincided with the revision of occupational therapy standards. However, these studies have not yet been reviewed or synthesized to identify how teaching and learning occupation has been represented, nor have they been assessed of quality.

Qualitative studies can be reviewed and synthesized using a range of methods. A qualitative evidence synthesis (QES) allows for findings of qualitative studies to be systematically compared, integrated or summarized (Grant & Booth, 2009). In occupational therapy literature, there has been qualitative syntheses published that examine the effectiveness of interventions used in mental health (Wimpenny et al., 2014), the impact of rehabilitation interventions on quality of life with people experiencing amyotrophic lateral sclerosis (Soofi et al., 2017), and the subjective meaning experienced in occupation (Eakman et al., 2018). Qualitative systematic reviews are also used in education research, for example exploring teachers' beliefs and technology use in education (Tondeur et al., 2016).

The research question guiding this QES was, *How has teaching and learning occupation been represented across qualitative studies in occupational therapy education?* A sub-question was *What is the quality of these studies?* To the best of the authors' knowledge, this may be the first qualitative meta-synthesis in occupational therapy education research, and therefore is a contribution to the knowledge and understanding of teaching and learning focused on occupation. This knowledge could support and guide the teaching practice of the growing numbers of occupational therapy educators internationally.

Methods

QES was chosen for this review as it uses an interpretive process that aims to broaden the understanding of a phenomenon, through identifying the themes and constructs within qualitative studies (Grant & Booth, 2009). This type of review offers an opportunity to consider insights from users (e.g. students) and practitioners (e.g. educators) in order to better generalize the results of studies to practice (Grant & Booth, 2009). A QES can contribute new knowledge about what is known of a topic, review the trustworthiness of research conclusions, and report the collective implications of the research for practice or future scholarship (Bearman et al., 2012).

Information Sources

A systematic search of four databases, CINAHL (Ebscohost), Medline (Ebscohost), Scopus, and Embase, was conducted following consultation with the University Health Librarian in order to retrieve the most relevant studies. Embase was used to broaden the range of health-related journals that were searched. Scopus was searched because it includes education research which may not be included in traditional health databases like CINAHL and Medline. Given the topic was not strictly biomedical or health science related, Scopus was also relevant. Limits applied to the search were studies published in English between 2000 and February 2020.

Search

A search strategy was developed and then adapted for each database. An example used in CINAHL was: “occupational therap*” AND occupation OR “occupation based” OR “occupation focus*” OR “occupation cent*” OR concept* OR educat* OR curric* OR teach* OR instruct* OR pedagog* OR learn* AND universi* OR college OR tertiary OR “post-secondary” OR graduate OR “entry level” OR entry-level OR “pre-registration” OR pre-registration OR entry-level OR “pre entry” OR studen* OR undergraduat* OR “graduate entry maste*” OR “graduate-entry maste*” OR “higher educat*” OR faculty. The search terms were selected based on knowledge of the literature and following pilot searches to identify the most suitable combinations.

Study Selection

Following the search, all references were imported into EndNote and duplicates removed. The references were then uploaded into the online reviewing system Covidence (Veritas Health Innovation, 2019) for study selection. Both authors applied the inclusion and exclusion criteria in two stages: (1) title and abstract screening, and (2) full-text review.

Articles were included if they were:

- focused on teaching and learning occupation;
- a research article using a qualitative methodology;
- focused on entry-level occupational therapy education programs (undergraduate or graduate entry masters);
- published in English;
- published after the year 2000;
- peer reviewed;
- available in full-text.

Articles were excluded if they were focused on:

- professional practice of occupational therapists or other health professionals;
- graduate/new graduate occupational therapists/allied health assistants/health professions other than occupational therapy;
- post-graduate education;
- general inter-professional education in practice;
- teaching topics other than occupation;
- formats such as editorials, letter to the editor, book chapters, conference studies or other publication types other than a research article.

Any disagreements between authors were discussed, and a final decision was made once both authors agreed. A hand search of the reference lists of included articles was completed to identify articles missed from the searches. Articles identified from the reference lists were also subject to title and abstract screening and full-text review. The PRISMA statement (Liberati et al., 2009) was used to document the search and selection process.

Data Collection Process

Following identification, both authors completed the critical appraisal and data extraction of key characteristics for all articles, which were entered into a spreadsheet. Trustworthiness of the articles was reviewed using critical appraisal which provides a systematic, criteria-driven and efficient approach to article evaluation (Hill & Spittlehouse, 2001). To determine study quality, the Critical Appraisal Skills Programme (CASP) toolkit for qualitative studies was used (CASP, 2018). The key characteristics extracted from the articles included the aim/s, type of qualitative methodology, participant information, data collection methods and analysis, and the approaches to teaching occupation (if applicable). Given both authors extracted data, a series of meetings were conducted to review the data until consensus was reached.

Data Synthesis

Data pertaining to critical appraisal and some key characteristics (year and place of publication, research design, data collection method and teaching approach) were summarized. The key themes of the articles were synthesized using thematic analysis, through an inductive process to generate key ideas and consolidate findings to establish a final set of themes (Creswell, 2018). The CASP information was analyzed first by tabulating the data to compare and present the quality of the studies. The data extracted into the spreadsheet was either summarized, or synthesized into themes (Creswell, 2018). The analysis process involved both authors working back and forth between each article to identify key ideas and initial themes (Creswell, 2018). All initial themes were represented using mind maps. Ideas were consolidated with both researchers present and in agreement. Each meeting between researchers involved grouping the similarities and differences of each initial theme and condensing the ideas. Once researchers had condensed the information, final themes were decided upon and named (Creswell, 2018).

Results

331 records were identified through database (328) and hand searching (3). 204 records remained once duplicates were removed. After screening and full-text review, 13 articles were included for analysis. See figure 1 for the PRISMA flow diagram that outlines the results of the search and selection process.

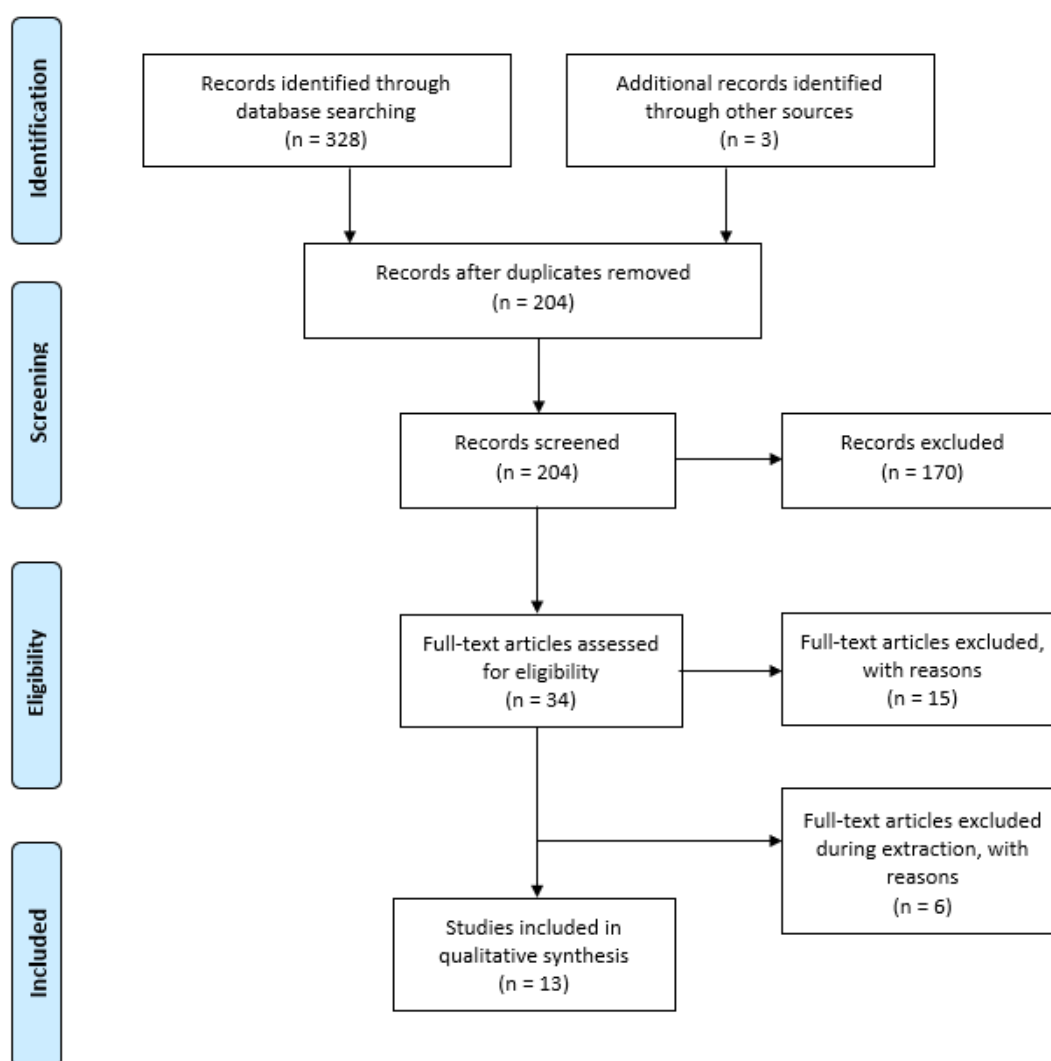


Figure 1. Flow diagram of search and selection process. Adapted from ‘Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement,’ by D. Mohor, A. Liberati, J. Tetzlaff, D.G. Altman and The PRISMA Group, 2009, PLoS Medicine

Study Characteristics and Critical Appraisal

The 13 articles were published between 2006 and 2019 and reported results from eight data sets. These data sets were collected in the United States (5), Australia (2), and the United Kingdom (1). The articles by Krishnagiri et al. (2017), Hooper et al. (2018), Price et al. (2017) and Taff et al. (2018) reported different aspects of results from the same data set. Similarly Copley et al. (2010, 2011) and Hooper (2006a, 2008) each reported on two articles from the same data sets. Five of the studies in the review were reported in single articles (Bazyk et al., 2010; Di Tommaso et al., 2019b; Ghul & Marsh, 2013; Hooper et al., 2014; Vroman et al., 2010). The key characteristics of the articles are presented in Table 1.

Two studies adopted a general qualitative approach (Di Tommaso et al., 2019b; Price et al., 2017), and a further two used a qualitative descriptive design (Hooper et al., 2014; Krishnagiri et al., 2017). A phenomenological approach was implemented in Bazyk et al. (2010) and Copley et al. (2010), and a case study approach in Hooper

(2006a), and Vroman et al. (2010). One study used an action research design (Ghul & Marsh, 2013). Five of the studies presented knowledge from an individual program, course, or learning activity (Bazyk et al., 2010; Copley et al., 2010; Ghul & Marsh, 2013; Hooper, 2006a; Vroman et al., 2010). Three studies included a broader perspective such as from national occupational therapy programs (Hooper et al., 2014; Krishnagiri et al., 2017) or educators from several different occupational therapy programs nationally (Di Tommaso et al., 2019b).

The number of participants varied across the studies. Two studies included student data alone: 18 students participated in the study by Bazyk et al. (2010) and one student in the study by Vroman et al. (2010). There was one study that included data from eight educators (Di Tommaso et al., 2019b). Three other studies included data from occupational therapy programs. Hooper (2006a) included one occupational therapy program that was made up of nine educators. Thirty occupational therapy programs were included in Hooper et al. (2014), and twenty-five in Krishnagiri et al. (2017). Of the studies that included both students and educators, Copley et al. (2010) had nine students and three practice educators. In Ghul and Marsh (2013) the participant numbers were unclear, however data drawn from eight years of implementing the module (with approximately 720 students and their educators) appears to have been used. The type of data collected from students included reflections (Bazyk et al., 2010; Ghul & Marsh, 2013; Vroman et al., 2010), and focus groups (Bazyk et al., 2010; Copley et al., 2010). The studies with educator data used individual interviews (Copley et al., 2010; Di Tommaso et al., 2019b). When occupational therapy programs were the source of data, collection methods included interviews, focus groups, class observation, and artifacts (Hooper, 2006a; Hooper et al., 2014; Krishnagiri et al., 2017).

There were two overarching purposes of the studies in the review. The first was to implement a specific method used to teach occupation and then examine student and/or educators' experience of the method (Bazyk et al., 2010; Copley et al., 2010, 2011; Ghul & Marsh, 2013; Vroman et al., 2010). The methods examined were a specific course module (Ghul & Marsh, 2013), service learning (Bazyk et al., 2010; Vroman et al., 2010), and practice education (or fieldwork; Copley et al., 2010, 2011). The second purpose was to explore educators' practice and thinking processes about teaching occupation (Di Tommaso et al., 2019; Hooper, 2006, 2008; Hooper et al., 2014; Hooper et al., 2018; Krishnagiri et al., 2017; Price et al., 2017; Taff et al., 2018).

Overall, according to the CASP checklist (see Table 2 for CASP questions 1-9) the included articles were of reasonable methodological quality, as most of the questions in the tool were addressed. Twelve (92%) articles had sufficiently rigorous data analysis and a clear statement of findings. All articles had a clear statement of the aims of the research, clear research design, and appropriate data collection methods. However, there were limitations in the quality of the included articles. The least well described criteria were the consideration of the relationship between researcher and participants (question six), and consideration of ethical issues (question seven), with seven (54%) articles clearly addressing both. The value of the research was evaluated in question 10 on the CASP, and this aspect of the appraisal was incorporated to varying degrees in the articles. The first consideration in addressing the article's value was whether the researcher discussed the contribution

of the study to existing knowledge or understanding. This can include the discussion of the results in relation to current practice or policy or relevant research-based literature (CASP, 2018). Twelve studies explicitly incorporated this link, primarily through the relationship of existing literature relevant to the results. Ghul and Marsh (2013) did not include this consideration.

The second consideration was identification of new areas for future research and all but three articles (Hooper, 2008; Taff et al., 2018; Vroman et al., 2010) included this section. There were recommendations for expanding the voice of students in research such as investigating student experience and perceptions (Hooper et al., 2018; Krishnagiri et al., 2017), mastery of occupation-centered practice (Copley et al., 2010), and personal connection (Hooper, 2006a; Price et al., 2017) with respect to understanding occupation and its use in practice. Future research incorporating more diverse educator perspectives was also recommended, such as the approaches used by novice practice educators compared to expert in practice education (also known as fieldwork; Copley et al., 2011), national and international educator perspectives (Copley et al., 2010; Di Tommaso et al., 2019b), and gathering exemplars of educators' approaches to designing and implementing curriculum centered around occupation (Hooper et al., 2014).

The third element was about researchers discussing whether (or how) the findings could be transferred to other populations, or if they considered other ways the research may be used (CASP, 2018). Most articles recognized an inability to generalize the results to a wider population. However, the articles by Copley et al. (2010; 2011) indicated that their findings could be applied generally to guide quality in practice education, and to occupational therapists learning to use occupation-based strategies in practice. A number of articles included implications for teaching and learning occupation, a strategy likely to support the reader to determine the local applicability of their results (Copley et al., 2010; Copley et al., 2011; Hooper, 2006a; Hooper, 2008; Hooper et al., 2014; Krishnagiri et al., 2017; Price et al., 2017).

Table 1

Characteristics of Included Studies

Study (year); Publication type; country	Aim/s or question/s of study	Methodological approach	Participants	Sampling; data collection method; analysis method	Approach to teaching and learning occupation (if applicable)
Bazyk et al. (2010); Journal article; United States	What are the perceptions and experiences of entry-level occupational therapy students participating in a service-learning experience designed to provide preventive occupation-based social skills groups to low-income urban youth attending after-school care?	Phenomenology	18 out of 20 first-year students enrolled in a master's level occupational therapy program at a large Midwestern urban university	Purposive sampling; reflective journals and focus groups; Giorgi's (1985) strategies, as described by Polkinghorne (1989), were followed for data analysis	Service learning
Copley et al. (2011); Journal article; Australia	To identify factors that facilitate mastery of occupation-centered approaches from both students' and practice educators' perspectives	Same as Copley et al. (2010)	Same as Copley et al. (2010)	Same as Copley et al. (2010)	Same as Copley et al. (2010)

(Cont'd)

Copley et al. (2010); Journal article; Australia	<ol style="list-style-type: none"> 1. To describe students' experiences of learning to implement occupation-centered approaches 2. To explore challenges encountered when implementing occupation-centered approaches 3. To identify factors that facilitate mastery of occupation-centered interventions (discussed in subsequent research article – Copley et al., 2011) 	Phenomenology	9 female students and 2 female practice educators	Not explicit but appears to be purposive; 3 x focus groups with each student, 3 x individual semi-structured interviews with each practice educator; thematic analysis	University pediatric clinic
Di Tommaso et al. (2019b); Journal article; Australia	<ol style="list-style-type: none"> 1. To describe Australian occupational therapy university-based educators' perspectives on and experiences of the centrality of occupation in the occupational therapy curriculum 2. To uncover university-based educators' perceptions of what will strengthen 	Qualitative research	8 female educators from 6 different universities (after 1 participant withdrew from the study post-interview)	Not explicit but appears to be purposive; semi-structured interviews; content and thematic analysis	Not applicable

(Cont'd)

	and challenge the implementation of occupation-centered education in Australia				
Ghul and Marsh (2013); Journal article; United Kingdom	1. How can we enable our students to have 'faith' in occupation as a source of health & wellbeing? 2. How can we promote client-centered practice? 3. How can we help students to understand the social model of disability?	Action research	Not explicit. Context of study is the first year of an occupational therapy degree program at Canterbury Christ Church University	Not explicit but appears to be convenience; via Action Research Cycle (ARC); not explicit, but the authors identified that some themes emerged consistently within the classroom and throughout the student written work during the observe and reflect stages of the ARCs	Course module
Hooper (2006a); Journal article; United States	1. What instructional processes are associated with occupation-centered education in a particular institutional context? 2. What beliefs about learning and knowing are reflected in the instructional processes in an occupation-centered curriculum?	Case study	All 9 female faculty members of a Master of Science program in a public university in the United States	Intensity sampling; semi-structured and unstructured interviews, videotaped classroom observations, participant observation and artifact review; line-by-line coding, reading data and writing as an analytic tool	Not applicable

(Cont'd)

Hooper (2008); Journal article; United States	1. How are educators' intentions for student formation reflected in the instructional processes they use? 2. How are educators' intentions for student formation related to their own personal and professional journeys? [part of a larger study by Hooper, 2006a)	Same as Hooper (2006a)	Same as Hooper (2006a)	Same as Hooper (2006a)	Not applicable
Hooper et al. (2014); Research article; United States	1. To elucidate the significance of a profession's core subject in education 2. To explore challenges for research related to core subjects 3. To describe research strategies that were used in one study to address those challenges 4. To propose a conceptual framework for future research related to how professions convey their core to students	Grounded theory	30 occupational therapy and occupational therapy assistant programs with one individual from each program identified to be interviewed about the curriculum	Stratified proportionate random sample; in-depth semi-structured interviews, artifact submission and video recordings; closely followed analytic process as described by Creswell (1998) with qualitative analysis software Atlas.ti	Not applicable

(Cont'd)

Hooper et al. (2018); Research article; United States	What strategies at the curriculum level were used to address occupation? [Part of larger study – Krishnagiri et al. (2017)]	Same as Krishnagiri et al. (2017)	Same as Krishnagiri et al. (2017)	Same as Krishnagiri et al. (2017)	Not applicable
Krishnagiri et al. (2017); Research article; United States	How was occupation addressed at the instructional level; that is, what classroom processes, methods, and materials were used, and what key messages were conveyed about occupation?	Basic qualitative methodology	25 programs from separate universities and colleges (15 occupational therapy and 10 occupational therapy assistant educational programs) in the United States	Stratified sampling of programs and random sampling for participants; in-depth, semi-structured telephone interviews, video recordings and artifact submission; generic qualitative analyses using inductive and deductive methods	Not applicable
Price et al. (2017); Research article; United States	When occupation was taught explicitly, how was it depicted? [Part of larger study – Krishnagiri et al. (2017)]	Same as Krishnagiri et al. (2017)	Same as Krishnagiri et al. (2017)	Same as Krishnagiri et al. (2017)	Not applicable

(Cont'd)

Taff et al. (2018); Research article; United States	What latent meanings within education research data are pertinent to occupational science? Does teaching simultaneously influence the doing, being, becoming, and belonging experiences of instructors, students, and researchers? [Part of larger study – Krishnagiri et al. (2017)]	Same as Krishnagiri et al. (2017)	Same as Krishnagiri et al. (2017)	Same as Krishnagiri et al. (2017); single transcript of a 1-hour interview with an instructor; hermeneutic interpretation	Not applicable
Vroman et al. (2010); Research article; United States	To investigate the process and experience of students' learning in a service-learning course to understand the role and value of this educational model to occupational therapy curricula's objectives.	Case study	1 senior occupational therapy female student attending a state university	Paradigmatic case selection; written assignment and journal entries; thematic analysis	Service learning

Table 1

Critical Appraisal of Study Quality Using the Critical Appraisal Skills Program Toolkit for Qualitative Studies (Questions 1-9)

Criteria	Bazyk (2010)	Copley (2011)	Copley (2010)	Di Tommaso (2019b)	Ghul (2013)	Hooper (2006a)	Hooper (2008)	Hooper (2014)	Hooper (2018)	Krishnagiri (2017)	Price (2017)	Taff (2018)	Vroman (2010)
1. Was there a clear statement of the aims of the research?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is a qualitative methodology appropriate?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Was the research design appropriate to the aims of the research?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Was the recruitment strategy appropriate to address the aims of the research?	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓
5. Was the data collected in a way that addressed the research issue?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Has the relationship between researcher and participants been	✓	✓	✓	?	?	?	?	?	✓	✓	✓	?	✓

adequately considered?													
7. Have ethical issues been taken into consideration?	✓	✓	✓	✓	?	?	?	?	✓	?	✓	✓	?
8. Was the data analysis sufficiently rigorous?	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓
9. Is there a clear statement of the findings?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓ = yes; x = no; ? = can't tell/limited

Results

Synthesis of Article Results

Two overarching themes related to teaching occupation were identified from the results reported in the articles: (1) educators are the instruments for occupation-centered education and (2) learning in context and through doing are distinctive pedagogies.

Educators Are the Instruments for Occupation-Centered Education

The place of educators in the teaching and learning of occupation cannot be underestimated. Unsurprisingly, many articles identified that educators play a crucial role in student learning about occupation. The ways in which educators impacted learning was through their teaching methods and approaches, such as by linking theory to practice using tools and models. However, it was recognized that these strategies did not always equate to learning about occupation.

Numerous studies identified in-class strategies used by educators to teach occupation. Hooper (2006a) found that in conjunction with active learning strategies, the use of orienting remarks, clinical stories, contradictory readings, content sequences, and inductively structured discussion were key instructional processes used to teach occupation in the classroom. The study conducted by Krishnagiri et al. (2017) aimed to identify the classroom processes and methods that were used by educators to convey key messages of occupation. The didactic method of interactive lectures was used to discuss occupation and the history of occupational therapy (Krishnagiri et al., 2017). More experiential methods involved engaging students in role plays, case studies, observations, interviewing people to create occupational profiles, and reflecting on the process of learning an unfamiliar occupation (Krishnagiri et al., 2017). In this study, when occupation was taught as an explicit concept, independent from therapy, the aim was for students to learn about the meaning of occupation, and the impact the environment (including culture) has on occupation (Krishnagiri et al., 2017). Therefore, the goal for students was to understand its nature (Krishnagiri et al., 2017). Price et al. (2017) identified that educators taught occupation as a single concept related to the self (apart from therapy), as a lens to understand others, and finally, as a way of conceptualizing the curriculum content and occupational therapy practice. Other studies suggested that written assignments, critical reflection, analysis studies and story writing surrounding occupation were strategies used to facilitate students' understanding of the concept (Taff et al., 2018; Vroman et al., 2010).

The educator's use of tools, models, and frameworks to link the theory of occupation to practice was apparent in the literature (Copley et al., 2010; Di Tommaso et al., 2019b; Hooper et al., 2014; Hooper et al., 2018). Hooper et al. (2014) suggested that conceptual frameworks are key to teaching occupation as they present the core concept visually and can guide teaching using stimulating questions. Di Tommaso et al. (2019b) and Copley et al. (2010) proposed that introducing occupation-centered models in education will enable students to transfer this knowledge into practice, and therefore be practicing in an occupation-centered way. In the articles by Copley et al. (2010; 2011) it was reported that students benefitted from the tools and structures provided by the

educators (client assessments and tip sheets). These tools and structures helped students to use occupation-centered practice, which the educators considered had less structure and pre-determined approaches available for students to use (when compared with impairment focused approaches). The educators believed that these tools allowed for occupation-centered strategies to be more explicit to the students and therefore more learner friendly (Copley et al., 2010; 2011). In support of this approach, Ghul and Marsh (2013) found that the use of a tool helped students understand and apply the complexity of occupation by linking theoretical ideas to participation in occupation.

Learning in Context and Through Doing Are Distinctive Pedagogies

Many of the studies suggested that transformation in learning can occur when learning is situated in context, which therefore incorporates authenticity and learning through the personal experience of doing. Numerous studies identified that learning about occupation outside of the classroom, through activities such as community engagement, service learning and fieldwork allowed students to construct their own knowledge of the concept. Hooper et al. (2018) found that educators used service learning (experiential learning and service within the community) because they believed that when students are actively engaged in their community, they develop a deeper understanding of occupation and its relationship to context and culture. Bazyk et al. (2010) and Vroman et al. (2010) revealed that when students participate in service learning and are given the opportunity to reflect on this experience, then they can recognize the powerful nature of occupation. In turn, this experience enhances student understanding of the concept of occupation. Regarding fieldwork, one paper suggested that practice educators have a responsibility to model occupation-centered practice, debrief and provide feedback, provide opportunity for practice and structure learning to assist students in their application of occupation-centered practice (Copley et al., 2011). Di Tommaso et al. (2019b) suggested that engagement in fieldwork must be balanced with occupation-centered education as university educators maintain the responsibility of ensuring students are equipped with the knowledge to translate occupation in practice.

Actively engaging students in learning was a feature of many of the studies, which was represented by students "...learning through doing" (Townsend et al., 2013). Students in the studies by Bazyk et al. (2010) and Copley et al. (2011) identified that trying occupation-centered approaches in practice was important to their learning about the concept. Hooper (2006a) identified that learning through active engagement was an important strategy. However, this needed to be combined with explicit links made by educators to occupation, otherwise activities that were simply active in their approach did not necessarily equate to effective learning about occupation (Hooper et al., 2018).

Discussion

This qualitative evidence synthesis provides insights into the literature that is focused on teaching and learning the concept of occupation within occupational therapy education programs. There were eight individual qualitative studies identified, and over half of these were in the United States of America. Five studies were about a "...local learning situation..." (Hooper et al., 2014, p.190), which describes an aspect of a single learning experience, course/unit, or program (Hooper et al., 2014), and three included a broader

national context. Therefore, the ability to generalize the results of these studies is limited. The results of the review revealed educators' beliefs, perceptions and experiences of supporting students to understand and apply the concept of occupation. Results also identified students' experiences of learning about occupation through doing, reflecting, and through developing an understanding of occupation in context (Bazyk et al., 2010; Copley et al., 2010; 2011; Ghul & Marsh, 2013; Vroman et al., 2010). Occupation is the core construct of occupational therapy and it is believed that education is the primary way for maintaining it as the centralizing concept and transforming how it is taught, understood and implemented in practice (Hooper et al., 2015).

To date, there is a lack of evidence that supports evidence-based, occupation-centered teaching methods and approaches. This could be attributed to occupational therapy educational scholarship being in its infancy (Hooper, 2016; Hooper et al., 2015; Roberts et al., 2015). Hooper et al. (2014) suggested that a number of health professions, including occupational therapy, are in the early phase of the development of their educational science. It is common that this phase would include descriptive studies that report on educators' own local learning contexts (Hooper et al., 2013; Hooper et al., 2014; Roberts et al., 2020). As a result, the studies produced during this phase lack the ability to consider the issues faced by the profession more broadly (Hooper et al., 2014), which was demonstrated in question 10 of the CASP that focused on the value of the research. This barrier to wider application of results was shown by over half of the studies focussing on local learning situations. These studies mostly lacked diversity in the types of participants and data collection methods, making their results difficult to apply generally. Furthermore, nearly one-third of the articles in this review were from the same data set and in the context of the United States of America, which makes their results difficult to generalize more broadly.

There is a need to generate knowledge to support the development of evidence-based teaching guidelines, and therefore the delivery of quality occupational therapy education that aligns with the profession's core concept of occupation (Krishnagiri et al., 2019; Roberts et al., 2020). The development of education guidelines could draw on past, current and future discipline specific research in conjunction with profession-specific standards and general educational theory (Hooper & Rodger, 2016). In developing the research base to be applicable to the profession globally, occupational therapy education researchers could use in-depth data collection methods such as prolonged engagement in field observation, or the implementation of educational interventions that draw on a diverse range of stakeholder perspectives (Roberts et al., 2020), across national and international contexts. Additionally, the results in this review pertaining to the lack of information about the relationship between researcher and participants are worth addressing. It is important that future research includes statements that address researcher characteristics, reflexivity, and a critical examination of the role of researchers, in order to address potential bias and assumptions that may have influenced the research process (CASP, 2018; O'Brien et al., 2014). This will support occupational therapy educators to better appraise the studies conducted and therefore the trustworthiness of their results.

The important role of educators in teaching the concept of occupation within occupational therapy curriculum has been confirmed in this review. As revealed in the study conducted by Di Tommaso et al. (2019b), educators play a significant role in the implementation and teaching of occupation-centered education. This notion is also supported by other sources (Canty et al., 2020; Hooper et al., 2015; Phelps & Benson, 2012). Phelps and Benson (2012) acknowledged that educators who are committed to change and embrace the chance to make an impact on education have a critical role in the transformation of occupational therapy education. Therefore, as Di Tommaso et al. (2019b) noted, to advance education and practice towards an occupation-centered approach, educators must have a coherent approach to teaching occupation aligned with the current occupational philosophy. Similarly, Morrison-Saunders and Hobson (2013) stated that when teachers are engaged and captivated with their subject, it inspires students to learn about, and develop their own relationship with the subject. In this sense, when teachers adopt a subject-centered approach, it is the most effective way to enhance the learning experience and create meaning of the subject for students (Morrison-Saunders & Hobson, 2013). Specific to occupational therapy, Hooper (2006a, 2006b, 2010) and Hooper et al. (2014) have promoted the use of this approach in the educational practice of the profession. These articles reinforced that subject-centered learning is a critical aspect of occupational therapy education, yet widely overlooked and a challenge for research due to limited understanding, recognition and implementation of the concept itself. Subject-centered curriculum within occupational therapy education allows for occupation to be promoted as an explicit concept in all areas of learning and is crucial to the development and implementation of an occupation-centered perspective for students (Hooper, 2006a, 2006b, 2010; Hooper et al., 2014).

An important point of discussion within numerous studies of this review is that occupation must be inherently understood by students in order for them to develop an occupation-centered perspective. The descriptive study conducted by Krishnagiri et al. (2017) reported that some educators found it important to teach occupation apart from therapy, and therefore we offer this as a guideline for occupational therapy programs. Educators included opportunities within the curriculum for students to learn about occupation, separate from its application to practice, in order to help them appreciate its complex nature. Similarly, Price et al. (2017), in alignment with subject-centered learning, suggested that students were being taught about occupation through multiple lenses: the self, others, and as part of occupational therapy practice. This notion of understanding occupation as a sole concept separate to therapy, is the defining aspect of occupational science and thus critical for students to learn about, in order to implement occupation in practice (Hooper et al., 2016; Hooper et al., 2015; Whiteford et al., 2000; Whiteford & Wilcock, 2001; Yerxa, 1998). Hooper et al. (2016) exposed that occupational therapy education and occupational science are fundamentally linked. When knowledge produced through occupational science is incorporated into education, students will be able to understand occupation as the central phenomena and thus be aligned with an occupation-centered perspective and identity (Hooper et al., 2016).

Study Limitations

Although a comprehensive search was conducted, this study may not have identified all published qualitative studies about teaching occupation in occupational therapy education programs. We acknowledge that the findings may be influenced by the personal and contextual underpinnings of the researchers, which was somewhat addressed through both authors participating in all stages of the review process.

Areas for Future Research

This review uncovered the limited body of qualitative research available about the approaches to teaching the concept of occupation within occupational therapy education programs. Studies exploring the specific teaching methods and approaches educators use to implement occupation-centered education in the classroom, in community engagement, and in fieldwork are needed. Student perspectives on what helps them to understand the concept of occupation could also be useful in supporting curriculum design and educator approaches. Future research that incorporates diverse qualitative methodologies using observational approaches could support the development of guidelines for teaching occupation, from both student and educator perspectives. These studies could extend beyond local learning situations and take a national or international approach in order to address the broader educational issues of the profession.

Conclusion and Implications for Occupational Therapy

Universities draw on a range of professional standards to guide the implementation of curriculum. These standards provide guiding statements, and not specific examples for what constitutes a curriculum that is occupation centered. This review identified that some evidence exists to guide occupational therapy specific teaching and learning methods and approaches. The review provided insights on strategies being used by educators to teach occupation such as teaching about occupation as a concept and its application to practice, and the use of active and experiential learning approaches. However, the effectiveness of these strategies on student learning outcomes related to occupation are not known.

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