

The Open Journal of Occupational Therapy

Volume 7 Issue 1 Winter 2019

Article 8

January 2019

A Scoping Review of Challenges and the Adaptation Process in Academia: Implications for Occupational Therapy Educators

Maria Concepcion C. Cabatan

University of the Philippines Manila-College of Allied Medical Professions, mdcabatan@up.edu.ph

Lenin C. Graio

Columbia University Medical Center - USA, lg2890@columbia.edu

Erlyn A. Sana

University of the Philippines Manila-National Teacher Training Center for the Health Professions, easana1@up.edu.ph

Follow this and additional works at: https://scholarworks.wmich.edu/ojot



Part of the Higher Education Commons, and the Occupational Therapy Commons

Recommended Citation

Cabatan, M. C., Grajo, L. C., & Sana, E. A. (2019). A Scoping Review of Challenges and the Adaptation Process in Academia: Implications for Occupational Therapy Educators. The Open Journal of Occupational Therapy, 7(1). https://doi.org/10.15453/2168-6408.1523

This document has been accepted for inclusion in The Open Journal of Occupational Therapy by the editors. Free, open access is provided by ScholarWorks at WMU. For more information, please contact wmuscholarworks@wmich.edu.

A Scoping Review of Challenges and the Adaptation Process in Academia: Implications for Occupational Therapy Educators

Abstract

The fulfillment of role expectations and responsibilities as one builds an academic career can be challenging. Increased demand for occupational therapy faculty merits examination of academic experiences from the literature. This study describes the experiences of educators using adaptation models (Savickas & Porfeli, 2012; Schkade & Schultz, 2003) as a theoretical lens. Arksey and O'Malley's Scoping Study Framework (2005) was used in the study. Researchers reviewed literature from 2005-2017 from four databases. Researchers analyzed 28 articles from higher education and the health professions using quantitative and qualitative methods. Twenty-two of the 28 articles were published from 2010-2017. The studies analyzed were conducted in seven different countries, the majority in the US (n = 11) and Australia (n = 7), and more than half used qualitative designs (n = 15). Three themes describe academic experiences: identity-related challenges in academia, process of adaptation among academics, and identification of factors affecting productivity. This study describes the various experiences of faculty to meet the demands of the academic environment. Adaptation of OT academics to their occupational roles and environments has not been widely explored. The implications for future study are discussed.

Comments

The authors report they have no conflicts of interest to disclose.

Keywords

higher education, faculty career, adaptation in the academe, academic challenges

Cover Page Footnote

We thank Faith Caube, Dhomilyn Hernandez, Micah Bulig, and Kendice Bobis for their assistance in the retrieval of articles and for organizing our article listings.

Credentials Display and Country

Maria Concepcion C. Cabatan, MHPEd, OTRP, OTR, FPAOT; Lenin C. Grajo, PhD, EdM, OTR/L; Erlyn A. Sana, PhD

Copyright transfer agreements are not obtained by The Open Journal of Occupational Therapy (OJOT). Reprint permission for this Topics in Education should be obtained from the corresponding author(s). Click here to view our open access statement regarding user rights and distribution of this Topics in Education.

DOI: 10.15453/2168-6408.1523

Global, entrepreneurial, and corporate demands on universities and colleges offering undergraduate to post-graduate programs have given impetus to changes in the roles and tasks that academicians fulfill (Forest, 2014). Faculty members in health professions education perform similar roles as those of educators from other disciplines, such as that of a curriculum and instructional designer, assessor of learner achievement, and classroom manager (Steinert et al., 2006). Their researcher roles also revolve around these teacher roles in a variety of teaching-learning milieu, from the classroom and laboratory, to the community, clinics, hospitals, and other related facilities. At the heart of these roles is the teacher facilitating learning, inspiring learners, and responding to the population health needs (Frenk et al., 2010). In addition to these roles, grant writing, publications in top tier journals, and the assumption of multiple administrative roles have become critical performance metrics for promotion and tenure. University and college level faculty, including those in occupational therapy (OT), have found these increasing expectations and demands challenging (Brew, 2010; Ivey et al., 2016).

A considerable number of studies have explored such experiences for faculty in the academe. Much of this literature has focused on faculty transitioning from the clinics and non-academic environments (e.g., industry) to the academic environment or doctoral graduates transitioning to fulltime faculty positions. Many of these studies examined academic experiences from the perspectives of academic identity, cultural socialization, agency and structure, academic workplaces, and faculty development (Billot, 2010; Boyd & Smith, 2014). Culture shock has been reported when health science faculty enter the academic environment because of a lack of formal training in education (Kahanov, Eberman, Yoder, & Kahanov, 2012) and stark differences in the workplaces in terms of delivery of tasks, expectations, outcomes, and criteria for successful performance (Crist, 1999). More recent studies show that there are problems related to OT faculty recruitment, retention, and formation of a scholar identity (Foy, 2017; Murray et al., 2014b). Many of these OT studies (Ennals, Fortune, Williams, & D'Cruz, 2015; Fortune et al., 2016) focused on the transition experiences of clinicians to the academic role or the experiences of newly appointed faculty to full-time positions. These studies suggest that the shift to a new academic role entails a transition process and an evolving academic career development process. This transition experience, the experience of faculty evolving into more advanced academic roles, and the challenges and processes by which faculty navigate these transitions remain under-explored in the scholarship of teaching and learning in OT.

An Adaptation Lens to Examine Academic Experiences

A person undergoes occupational adaptation (OA) to master chosen occupations and respond to challenges as demanded by the occupational environment (Grajo, 2017; Schkade & Schultz, 2003). According to OA, a person's adaptation process can be measured by adaptive capacity (i.e., the ability to perceive the need to change, modify, or refine a variety of responses to occupational challenges in the environment) (Schkade & Schultz, 2003). Applied to the construction of an academic career, adaptive capacity may be explained in a way similar to Savickas and Porfeli's (2012) constructs of adaptivity (willingness to embrace change), adaptability (use of psychosocial resources to respond to roles and challenges in a specific context), and adapting responses. According to the career construction model of adaptation (Savickas, 2013), adaptation drives individuals to meet work-role expectations.

To fulfill an occupational role, such as an educator, the person undergoes a process of adaptation as influenced by work expectations and demands (Savickas & Porfeli, 2012). In addition, one must accurately understand both internal and external role expectations and demands, such as teaching and learning processes, research abilities, and appreciations (Austin, 2002). Faculty experiences illustrate that the process of understanding and meeting academic role expectations and

demands can be filled with conflict and anxiety (Reybold & Alamia, 2008). Even when tenure is granted, a midcareer faculty member is expected to bring in grants and to deal with increased teaching loads and expectations for service (Matthews, 2014). These experiences appear to uphold the seminal assertions of Baldwin and Blackburn (1981) that describe how academic career stages involve different kinds of challenges and responses. Adaptation attributes, such as adaptivity, adaptability, and adapting responses, are vital to progress across stages. Changes in higher education and working conditions impact the relationship between academics and the workplace. The OT faculty workforce will continue to encounter emerging changes in the academic workplace and will need to be adaptable and to take charge personally of career progression. For example, new faculty need to adjust to novel occupational demands, primarily because there may be no explicit preparation for the academic role (Crist, 1999; Kahanov et al., 2012). Recent studies of OT faculty experiences indicate that this scenario still applies (Carra, Fortune, Ennals, D'Cruz, & Kohn, 2017; Ennals et al., 2015; Foy, 2017; Murray, Stanley, & Wright, 2014b). It is from this perspective that we used models of adaptation to underpin our analysis of academic experiences of challenges and adaptation of faculty from OT, other health sciences, and disciplines.

The Present Study

A scoping study is a systematic method of analyzing literature and aims to describe the nature and array of research that has been done on a topic of interest (Arksey & O'Malley, 2005). This method is used to inform researchers of the need for further systematic review, of the levels of evidence available, and of knowledge gaps on a research topic. This scoping study aimed to identify, summarize, and describe existing literature on challenges experienced by faculty in higher education, apply concepts of adaptation in the understanding of these experiences, and describe implications for OT education. For this study, we used higher education to refer to institutions offering both undergraduate and post-graduate degrees; academics, academicians, faculty, and educators are used synonymously and in general terms without reference to any group (e.g., career stages or areas of specialization).

Method

This study used the scoping framework of Arksey and O'Malley (2005). A scoping study is used to map relevant literature in a field of interest. It is usually concerned with a broad topic where different study designs are applicable. Unlike a systematic review, it does not appraise the quality of literature (Arksey & O'Malley, 2005). Following the said framework, the researchers followed these five steps:

- 1. Identify the research question.
 - Our research questions are:
 - What are the experiences of faculty members in terms of challenges in the academic environment?
 - How do faculty members adapt to these challenges?
- 2. Identify relevant studies.

We conducted a search in the following electronic databases: ProQuest, PubMed, SCOPUS, and EBSCO. We chose these databases for their broad content and education-focused articles. We limited the search to articles published from 2005 to 2017. The initial search terms used were occupational therapy and academic experiences. However, these search terms did not yield enough relevant studies that would answer our research questions. Only six studies were found that focused on OT faculty. We broadened our search terms to include: academic practice, academic experience, academic productivity, academic identity, *and* allied health science, *or* higher education. The expanded search terms resulted in articles from other health sciences (e.g., nursing, physical therapy)

and disciplines (e.g., education, humanities), which, after abstract review, were deemed to be relevant and could add substance to our analysis. The first author also did a hand search of available journals in print by browsing the table of contents of allied health journals at the college library and from search records of a related research project. The search results were then imported into Zotero (Roy Rosenzweig Center for History and New Media) to collate the yields per electronic database and to remove duplicates. To ensure accuracy, the first author compiled the list of articles in Google Sheets and crosschecked manually. The search and selection process is presented in Figure 1.

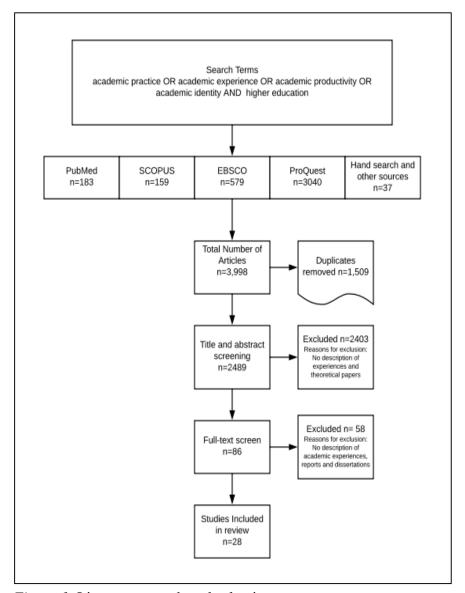


Figure 1: Literature search and selection process.

3. Select studies.

Articles were screened and selected using the following inclusion criteria: (a) published between 2005 and 2017; (b) published in English; (c) describe academic experiences in terms of roles, role expectations and demands, and challenges and processes used in response to academic experiences; and (d) published in peer-reviewed journals. Theoretical papers, dissertations, technical reports, and articles that did not describe academic work experiences were excluded. Three systematic reviews were included in this review (Murray, Stanley, & Wright, 2014a; Summers, 2017; Wyllie, DiGiacomo, Jackson, Davidson, & Phillips, 2016).

4. Chart the results.

This process included reviewing and understanding reported data against parameters related to the research question (McKinstry, Brown, & Gustafsson, 2014). We developed a charting matrix to extract the following information from the selected studies: author/s/year of publication/study location; title of study; discipline and higher education level, if indicated; study purpose, study design, participants, and key findings; Google Spreadsheet was used for charting. The first author charted the 28 articles (see Appendix A). The second and third authors reviewed the charts for accuracy.

5. Collate, summarize, and report.

We organized selected studies using frequency counts and thematic qualitative analyses. All relevant articles were read in full. Numerical analysis showed search results according to distribution of studies by year of publication, country of origin, research design, source of literature, and participants. Qualitative analysis was framed according to adaptation concepts of OA (Schkade & Schultz, 2003) and the Career Construction Model of Adaptation (Savickas, 2013). Using a mapping framework, the researchers generated a map of themes and subthemes from the charting matrix (Davies, 2011). To establish credibility and rigor, the first author coded the charts and came up with the initial themes. The second and third authors examined the themes with key findings in the charts. Each author gave input about the codes and themes. The results were classified under main themes, related to the purpose, and focus of the review.

Results

Frequency Analysis

Studies came from seven countries. Eleven (39%) of the studies were conducted in the US, seven (25%) in Australia, and five (17%) in the United Kingdom. The rest were conducted in New Zealand (n=2) and one each in Canada, Ireland, and South Africa. Table 1 shows the study design, publication source, and participants. More than half (n=15) used qualitative designs. Only six studies focused on OT faculty. Three studies described the academic experiences of OT faculty with faculty from other health disciplines, such as physical therapy and nursing. Only five studies were from OT publications, and about half of the studies (n=23) were from higher education and other health professions education publications.

Table 1 Frequency Analysis of Academic Experiences (n = 28)

Criteria		Number
Study Design	Qualitative	15
	Action research/autoethnography	2
	Case study	1
	Grounded theory	1
	Interpretive	1
	Phenomenology	2
	Approach not specified (interviews, blogs)	8
	Quantitative (surveys)	8
	Qualitative and Quantitative (survey with open- ended questions)	2
	Review	3
Source of Publication	Higher education and Health professions education	13
	Occupational therapy	5
	Nursing, medical, physical therapy, psychology	10

Participants	Occupational therapy academics only	6
	Health professions academics with OT educators	3
	Other health professions academics (medicine,	11
	nursing, physical therapy)	
	Academics from other disciplines (social sciences,	8
	education, sciences, health identified as a cluster)	

Thematic Analysis

Three major themes describe academic experiences: (a) identity-related challenges in academia; (b) adaptation among academics; and (c) factors affecting productivity. A matrix that illustrates how each of the studies was analyzed based on these three themes is presented in Appendix B.

Theme 1: Identity-related challenges in academia. Clinicians acknowledge that the academic environment requires a new set of work skills and work routines, thus transitioning from the clinics to academia can be daunting (Murray et al., 2014a). Three sub-themes were described as identity-related challenges: (a) shifting from a clinician to an academic identity; (b) reconstructing one's identity in relation to the roles of teacher, researcher/scholar, and practitioner; and (c) identity that embraces the academic culture and meets expectations.

Identity shift from clinician to academic. The shifting of identity was described as an unsettling and uncertain period. Feelings of disconnect relate to the emotional aspect of the role change (Hurst, 2010; Weidman, 2013). These feelings of being disconnected were described in the literature as feeling new and vulnerable (Murray et al., 2014a); feeling challenged to cope (Frantz & Smith, 2013); and perceptions of floundering in a new world as the educator learned how to access resources and seek assistance related to teaching and research (Ennals et al., 2015; Hurst, 2010). The feelings of disconnect were also related to questioning their credentials as educators that suggest a lack of confidence and self-doubt (Hurst, 2010; Murray et al., 2014a; Murray et al., 2014b). Novice OT faculty expressed feelings of doubt and incompetence, as compared to their clinician roles, where they were recognized as experts (Ennals et al., 2015; Murray et al., 2014b).

Reconstructing identity to balance academic roles as teacher, researcher, and practitioner. Educators have described feelings of inauthenticity as a result of insecurity and uncertainty that created tension (Archer, 2008; Fortune et al., 2016). The tension emanated from the expectation to perform well in their roles as teacher, researcher, and practitioner (Fortune et al., 2016) and the value ascribed to each role varied by departments (Gardner & Blackstone, 2013). Tension was particularly considerable with shifting roles of that of a teacher and researcher leading an OT educator to question his or her identity as "what makes one more academic or scholarly" (Ennals et al., 2015, p. 8). Tension was also attributed to being expected to undertake multiple responsibilities (e.g., research), some of which were perceived to be in conflict with personal values or priorities (Archer, 2008; Billot, 2010; Boyd & Smith, 2014; Carra et al., 2017; Lieff et al., 2012). For example, participants in Archer's study labeled the process of obtaining external grants as "unfulfilling and soul-destroying" (p. 389). Achieving a level of mastery of academic tasks and maintaining excellence as a clinician was reported as discordant (Lieff et al., 2012). Teaching was viewed as a comfort zone, and although research was accepted as an expectation, it was also perceived as intimidating (Archer, 2008; Boyd & Smith, 2014; Ennals et al., 2015; Fitzmaurice, 2013). This may be attributed to a lack of confidence in research skills (Stoykov, Skarupski, Foucher, & Chubinskaya, 2017). This feeling of intimidation was most prominent for faculty who have not yet obtained doctoral qualifications; not established research productivity; were unfamiliar with access to research and scholarship routes (Ennals et al., 2015; Smith & Boyd, 2012); and junior faculty, who desire to

become independent, funded investigators (Stoykov et al., 2017). Reduced job satisfaction and higher levels of burnout were observed among junior tenure-track faculty who reported low confidence in their research skills (Stoykov et al., 2017). Even if faculty were inundated with heavy teaching loads and student assessments, there were expressions of a desire to learn how to prepare, teach, and mark, owing to a lack of background on educational theory (Boyd & Smith, 2014; Foy, 2017; Hurst, 2010; Smith & Boyd, 2012; Weidman, 2013). Teaching was also cited as the reason for having no time to direct work toward upskilling of research qualifications and producing output (Boyd & Smith, 2014; Ennals et al., 2015). The challenge of dealing with the multiplicity of roles becomes more complex for OT faculty because of unanticipated roles and responsibilities consisting of meetings and committees, student and faculty advising, and interviewing and admissions (Foy, 2017). In addition to fulfilling academic roles and responsibilities, faculty also reported struggling to gain a balance between their personal and professional lives (Archer, 2008).

Identity that embraces academic culture and meeting expectations. Identity in relation to internalizing the academic culture in terms of its demands and rules was identified as another challenge. This was due to a general lack of knowledge of institutional and administrative requirements of the academic role (Archer, 2008; Murray et al., 2014a; Summers, 2017) and when personal, institutional, and disciplinary values were not congruent (Fortune et al., 2016). The OT faculty in the study of Ennals et al. (2015) articulated this as having to learn the "academic game" (p. 441). This challenge was also portrayed as feelings of failure and lack of control over performance (Billot, 2010); feeling disenfranchised (Fortune et al., 2016); never quite being able to meet criteria and being ambiguous about what is valued (Clegg, 2008); lack of clarity on expectations to move from one rank to another (Gardner & Blackstone, 2013); and lack of confidence to contribute in departmental meetings (Hurst, 2010). Academic culture can be perceived as "excluding and frustrating" (Murray et al., 2014a, p. 393), and the academic environment as lacking structure and definition. OT faculty described this as being expected to perform like experienced academics, even if they were just learning the process (Murray et al, 2014b). Academic "loss and fear" and isolation were felt in response to the demands of a corporate university environment (Churchman & King, 2009, p. 511). The clinicians turned academics, however, acknowledged that the academic environment offered more flexibility than the clinical setting (Boyd & Smith, 2014; Smith & Boyd, 2012). Flexibility was perceived as the capacity for independence and creativity in the delivery of teaching and the ability to make decisions on work direction (Smith & Boyd, 2012). On the other hand, flexibility was also perceived as potentially consuming of one's life through the practice of bringing work home (Boyd & Smith, 2014). The competitive and hierarchical nature of the academic culture was difficult for many OT faculty to comprehend (Murray et al., 2014b). Unclear standards for promotion led to feelings of frustration and incompetence (Foy, 2017; Gardner & Blackstone, 2013). It was disconcerting for new OT faculty to observe senior colleagues prioritizing grant applications over teaching (Murray et al., 2014b). Attention given to ambition and personal success observed in OT faculty colleagues were viewed as surprising revelations. Building collegial relationships required extra effort (Murray et al., 2014b).

Although challenges played a prominent role for new academics, there were reports of positive experiences. The motivation to nurture future generations of health professionals, a desire to teach and contribute to the profession and discipline, an appreciation of autonomy within the academic environment, and opportunities offered were acknowledged as welcome experiences (Churchman & King, 2009; Smith & Boyd, 2012). There was also an acknowledgement that to be an academic, one must embody qualities, such as being intellectual and critical (Archer, 2008), and virtues, such as honesty, care, and compassion (Fitzmaurice, 2013).

Theme 2: Adaptation among academics. Three sub-themes suggest that academics use adaptive capacity in fulfilling academic work. These are positive attitudes toward change, use of resources, and adaptive behaviors.

Positive attitude toward change. Shifting from one role to another or within the work context denotes change. How faculty views change can determine how one negotiates academic roles, expectations, and demands. A positive attitude toward change was represented as being open to and embracing change (Murray et al., 2014b; Wyllie et al., 2016) and being excited about the new role (Hurst, 2010). OT faculty in Carra et al.'s (2017) study explained being positive as having an open attitude toward work and opportunities that fulfilled one's desire to create balance and to reach one's potential. In addition, being positive was characterized by making sense of the experience (Churchman & King, 2009) and having a vision of possibilities and a shared journey with fellow academics (Ennals et al., 2015). Finally, a positive attitude toward change was exemplified through an academic's intent to seek support from peers, mentors, and the institution (Wyllie et al., 2016).

Use of resources. Managing academic work entails use of faculty resources or competencies that allow them to shape their style of adapting. These were portrayed as: expecting the unexpected, letting go, a shift in consciousness, gaining new insights, capacity to overcome barriers, and having a vision of the future (Ennals et al., 2015; Fortune et al., 2016); doing things differently and having a positive sense and desire to become more scholarly (Murray et al., 2014a); and reflexivity and intentionality (Clegg, 2008). Personal attributes can also be used to influence adaptation, such as personal control, readiness, confidence, support, self-esteem, and work locus of control (Goodrich, 2014); staying positive, being passionate, working hard, and embodying resilience; and desire for service (Fitzmaurice, 2013; Murray et al., 2014b; Wyllie et al., 2016). Personal control was determined to be an outcome indicator of a healthy transition to the academe and reflective of mastery of new skills (Goodrich, 2014).

Adaptive behaviors. This sub-theme refers to responses to stressful or challenging situations or conditions that point toward an adaptation process and lead to positive outcomes in academic work. The behaviors can be classified as self-directed, others-directed, and institution-centered. The process of adaptation to the academe includes a period of temporary turmoil that facilitates adapting to the work environment and recognition that the process may take 1 to 3 years (Murray et al., 2014a).

The person or self plays a vital role in the adaptation process. Reflecting on one's experiences and managing the self to handle the new role and work context begins the process of adaptation (Fortune et al., 2016; Murray et al., 2014b; Smith & Boyd, 2012). Reflection and management of the transition process enabled faculty to achieve a sense of belonging and being part of the culture. OT faculty described this adaptation process as "gifts and ah-ha moments" (Fortune et al., 2016, p. 317), a shift in consciousness, new insights, and altered ways of constructing a scholar identity (Carra et al., 2017; Ennals et al., 2015; Fortune et al., 2016). Commitment to thinking and working as an academic was a central characteristic of fitting into the academic role and environment (Clegg, 2008; Hurst, 2010; Murray et al., 2014b). For OT faculty, this entailed having clear personal goals, a vision, and working hard to enable management of the transition and to meet organizational expectations (e.g., teaching, research, and writing) (Murray et al., 2014b).

Adaptation in the context of the academic career involves a social context. Seeking support from peers and mentors (Falzarano & Zipp, 2012; Fortune et al., 2016; Frantz & Smith, 2013; Murray et al., 2014b; Wyllie et al., 2016) and forming connections with the academic community (Hurst, 2010; Lieff et al., 2012) were behaviors that not only indicated good coping but were factors that influenced faculty retention (Summers, 2017). It is notable that assessment of mentoring

experiences was mixed (i.e., positive, negative, or both) (Falzarano & Zipp, 2012; Foy, 2017; Hurst, 2010). Obtaining feedback on one's performance was reported to help clarify role expectations (Summers, 2017). Building relationships with students and sharing and collaborating with peers allowed OT faculty to reconstruct and transform their clinician identity to one that is academic (Murray et al., 2014b). OT faculty participation in an action research project (Growing Scholarship [GS]) signifies an adaptation process by exploring their sense of being, viewed as the pathway to doing and building scholarly activities and becoming scholars (Fortune et al., 2016). Activities that facilitated fitting into the academe included sharing their expertise with students, contributing to the curriculum, and being stimulated intellectually (Hurst, 2010; Murray et al., 2014b).

Adaptive behaviors were also reported to be institution-centered. Examples include attending orientation programs (Summers, 2017), courses on teaching and learning, university trainings, and seeking institutional resources (Fortune et al., 2016; Foy, 2017; Hurst, 2010; Lieff et al., 2012; Murray et al., 2014a). Understanding contracts and obtaining advanced degrees were reported to pave the way for adaptation for OT faculty (Foy, 2017). Having faculty development plans was also viewed as a positive strategy toward success in academia (Foy, 2017). Of note, perceptions toward faculty orientations were both positive and negative. More than half of the study participants in Foy's survey found this as a barrier rather than as a helpful strategy (2017).

Moreover, a department or institutional culture that was supportive, collegial, collaborative, and accepting of different forms of scholarship were part of the experience of adaptation, helping with bridging gaps in identity (Fortune et al., 2016; Frantz & Smith, 2013; Lieff et al., 2012) and generating a kind, respectful, and collaborative "space" (Fortune et al., 2016, p.11) that fostered a sense of belonging (Lieff et al., 2012). Fortune et al. (2016) argued that to become a "performative' academic" (p. 323) doing research per se is not enough, but it is critical to be in an environment that supports the process of identity transformation and scholarly growth. The experience of adaptation to the new role and environment was felt when changes were made relative to managing teaching demands and familiarity with institutional rules, duties, and expectations (Frantz & Smith, 2013; Hurst, 2010).

Theme 3: Factors affecting productivity. Scholars have identified success indicators in academia (Hardré, Beesley, Miller, & Pace, 2011; Kaufman, 2009; Sutherland, 2015). Sutherland (2015) defined objective indicators to include research productivity, promotion and tenure, status, teaching performance, and salary. Research productivity was defined as the number of times a faculty member was involved in research projects; received or applied for grants; published in refereed journals; and edited, authored, and/or co-authored books or chapters. Status was defined as reputation in one's discipline, research and teaching awards, and being given department and university-level responsibilities. Teaching performance was viewed as rating high on student evaluation scores and handling large classes (Sutherland, 2015).

Personal, contextual, and motivational factors were found to influence faculty research productivity in research-extensive universities (Hardré et al., 2011) and large medical schools in the United States (Bland et al., 2005). Hardré et al.'s (2011) study found that intrinsic motivation had strong correlation with value for research, research effort, and self-efficacy. Research valuing and research effort had a positive influence, whereas teaching load had a negative influence on research productivity (Hardré et al., 2011). Individual characteristics (e.g., appointment type [tenure-track], rank, research time, effort, value, self-efficacy for research and intrinsic motivation for research) and institutional characteristics (e.g., department support, sufficient work time) influenced faculty productivity (Bland et al., 2005; Hardré et al., 2011; Kaufman, 2009). Institutional and leadership characteristics affected group or department productivity (Bland et al., 2005). Institutional

expectations and faculty priorities were reported to have strong and positive correlations (Hardré et al., 2011). Bland et al.'s (2005) study results suggested that faculty with strong motivation for research, formal mentoring programs, networks, and allocating time for research are factors that predict research productivity. Institutional characteristics, such as research-oriented leaders, are vital to research productivity. Institutional and leadership characteristics, such as clear goals, emphasis on research, communication, and an assertive-participatory governance, are necessary if institutions want the majority of its faculty to be highly research productive.

Subjective career success indicators were named as life satisfaction, contribution to society, freedom, job satisfaction, and influence on students (Sutherland, 2015). Academic well-being (job and life satisfaction) is predicted on factors such as scholarship compatibility mediated by perceived academic alignment (Pereyra-Rojas, Mu, Gaskin, & Lingham, 2017). How the values, norms, and culture of an institution are aligned or compatible with the professional values, identity, and skills of an academic is essential for translation of scholarly work into academic outcomes (Pereyra-Rojas et al., 2017). Other indicators that OT faculty identified to lead to a successful academic career are internalization of academic roles and demonstration of a degree of involvement and commitment to the institution (Ennals et al., 2015; Murray et al., 2014b).

Discussion

This scoping study aimed first to provide an overview of what is available in the literature about the challenges and adaptation process experienced by faculty, then to identify gaps in the literature. This study found descriptive and qualitative evidence of challenges, adaptation experiences, and factors that influence the productivity of faculty in OT and other health sciences and disciplines. Despite the variety of contexts in which the studies were conducted, there are shared academic experiences across disciplines, especially among early career academics. The studies reveal evidence that, even though academia can be a rewarding and progressive environment, it is also filled with demands and expectations that new OT academics may find daunting.

The results indicate that academia can be a complex workplace filled with a variety of challenges. The findings also suggest that faculty will have to be adaptable to build a successful academic career across diverse institutional contexts. Construction of an academic identity that encompasses teaching, research, and practitioner roles is critical to adaptation to academia. Institutional supports play an important role in facilitating identity reconstruction and the adaptation process. Central to educators' experiences is the triad of roles that determine expectations and demands from the academic environment. Experiences highlight the adaptation that evolves when the academic transacts with the academic environment. A disconnect between the self and the work environment facilitates a process of adaptation. Adaptation begins with critical reflection and use of personal attributes and resources followed by an array of responses. Adaptive responses lead to positive outcomes, such as productivity in teaching and research; identity reconstruction; and assimilation of academic culture, job, and life satisfaction. Educators' experiences are also a function of culture defined by the institution, department, and discipline.

Conceptualization of academic experiences from this scoping review contributes to the ongoing discourse on construction of successful academic careers. The stories of faculty in most of the studies suggest the need for more dialogue and conversations to assist growth in their professional and personal lives. Detailed attention to how academic roles and identities are built within changing university environments is an important higher education agenda, as evidenced by the growing number of publications in recent years.

The adaptation processes that emerge and evolve in academic careers also affirm some of the adaptation constructs of Schkade and Schultz (2003), Savickas (2013), and Grajo (2017). This

scoping study indicates that adaptation is a useful framework to examine academic experiences. These studies provide descriptive and qualitative evidence that academics possess characteristics that allow them to use adaptive strategies and behaviors. According to Schkade and Schultz and Grajo, a person's capacity to respond adaptively to occupational challenges and to participate efficiently and effectively in occupations indicates a successful process of adaptation. The indicators for these are when adaptive responses are demonstrated in occupational contexts and challenges, together with other strategies, to improve performance. From the perspective of the Career Construction Model of Adaptation, adaptive attributes and strategies are used to build careers (Savickas, 2013). Savickas asserts that perceptions of success, satisfaction, and career development may be used as indicators of adaptation in academic careers.

We identified five gaps in the literature. First, all of the studies, except for one, were done in institutions of higher education in developed countries. Institutional contexts vary according to cultures, missions, organizational structures, resources, and priorities. Because adaptation is context specific, faculty in other cultures may have different experiences. It is critical that, to advance educational science in OT, more research is conducted on theory construction (Hooper, Gupta, Bilics, & Taff, 2018) across different countries and regions. Theory construction and studies understanding processes and experiences in higher education may better facilitate effectiveness or outcome-based educational research.

Second, most of the studies focused on the experiences of early career academics. Mid- and late-career educators experience different sets of personal and academic challenges that may significantly impact their adaptation process in their roles as educators. Many educators shift to advanced administrative roles that may change teaching, research, and service responsibilities, and this transition may also influence identity reconstruction and balancing.

Third, there are few recently published studies on OT academics compared to nurse educators. While the occupational therapy research agenda in many professional associations focuses on building evidence on efficacy and the effectiveness of OT services and curricular innovations, it is critical that occupational therapists be involved in educational science that investigates academic practices, cultures, and experiences.

Fourth, many of the studies were done using qualitative methods. While qualitative methods provide detailed and in-depth understanding, there are limits to the generalizability of the results. Also, inquiry using one approach offers a limited angle to understanding problems. A combination of quantitative and qualitative methods to obtain a more complete, balanced, corroborated understanding of academic experiences may be a viable option (Creswell & Plano Clark, 2017).

Fifth, work-life balance, as part of the adaptation process, was not adequately addressed in the studies. OT faculty are reported to struggle in fulfilling department and institutional expectations in relation to academic and scholarly work (Ivey et al., 2016). Ivey and colleagues (2016) have reported on a creative community engagement model to address teaching, scholarship, and service demands. Attention to how these demands are impacting on the work-life balance of faculty members is crucial because we value meaningful and productive ways of living.

Limitations

This scoping review was limited to peer-reviewed articles published in the English language. It is possible that there are unpublished reports from other parts of the globe that may shed more light on this topic. Moreover, we used two theories that served as our *a priori* analytical framework as a lens in presenting the results and implications of the study. Use of broader and other theoretical frameworks may elicit new and different understandings from the study's results.

Implications for OT Education and Research

- OT educators are critical for educating future generations of OT practitioners and for further advancing our discipline; thus, their value cannot be undermined. The OT academic workforce needs renewed critical attention in view of the increase in OT academic programs, changing accreditation demands, intense competition, complex institutional demands, and the changing economic and political contexts. Beyond increased support for educational science research, research on understanding mechanisms to support OT faculty development is needed. Some topics for research exploration may include: structured time use analyzing research, teaching, assessment of learner achievement, and service time; analysis of mentorship processes and the effectiveness of mentorship for new educators; and understanding of how tenure-track occupational therapy faculty develop and attain a research agenda.
- More studies are needed to explore, understand, and explicitly describe the academic experiences of OT faculty in various institutional and cultural contexts and to measure how changes in the landscape of higher education impact the capacity and ability of OT educators to fulfill their roles. We suggest the use of mixed-method designs in future research, as this may provide a more holistic and balanced picture of OT academics' experiences. These types of studies are critical to inform academic institutions and leaders in developing creative approaches and strategies to facilitate success in academia, such as recruitment and retention systems that pay attention to OT faculty's adaptive capacities and attributes, development of needed and effective mentorship programs, and tailored academic workloads.
- Success indicators may vary for OT faculty populations, institutions, and individual occupational therapists. The impact of institution-prescribed performance metrics vis-à-vis personal goals and values need to be explored, and supports may have to be tailored accordingly. In addition to scholarship and research, the value of work-life balance to OT academics needs careful and deliberate consideration, particularly because OT as a profession prides itself on promoting productive and meaningful participation in occupations.

References

Archer, L. (2008). Younger academics' constructions of 'authenticity', 'success' and professional identity. *Studies in Higher Education*, 33(4), 385-403.

https://doi.org/10.1080/03075070802211729

Arksey, H., & O'Malley, L. (2005). Scoping studies:
Towards a methodological framework.

International Journal of Social Research
Methodology, 8(1), 19-32.

https://doi.org/10.1080/1364557032000119616

Austin, A. (2002). Preparing the next generation of faculty: Graduate school as socialization to the academic career. *The Journal of Higher Education*, 73(1), 94-122.

https://doi.org/10.1080/00221546.2002.117771

Baldwin, R. G., & Blackburn, R. T. (1981). The academic career as a developmental process:

Implications for higher education. *The Journal of Higher Education*, 52(6), 598-614. https://doi.org/10.2307/1981769

Billot, J. (2010). The imagined and the real: Identifying the tensions for academic identity. *Higher Education Research & Development*, 29(6), 709-721.

https://doi.org/10.1080/07294360.2010.487201

Bland, C. J., Center, B. A., Finstad, D. A., Risbey, K. R., & Staples, J. G. (2005). A theoretical, practical, predictive model of faculty and department research productivity. *Academic Medicine*, 80(3), 225-237. https://doi.org/10.1097/00001888-200503000-00006

Boyd, P., & Smith, C. (2014). The contemporary academic: Orientation towards research work and researcher identity of higher education lecturers in the health professions. *Studies in Higher Education*, 41(4), 678-695. https://doi.org/10.1080/03075079.2014.943657

- Brew, A. (2010). Transforming academic practice through scholarship. *International Journal for Academic Development*, *15*(2), 105-116. http://dx.doi.org/10.1080/13601441003737618
- Carra, K. A., Fortune, T., Ennals, P., D'Cruz, K., & Kohn, H. (2017). Supporting scholarly identity and practice: Narratives of occupational therapy academics. *British Journal of Occupational Therapy*, 80(8), 502-509. http://dx.doi.org/10.1177/0308022617700653
- Churchman, D., & King, S. (2009). Academic practice in transition: Hidden stories of academic identities. *Teaching in Higher Education*, 14(5), 507-516. https://doi.org/10.1080/13562510903186675
- Clegg, S. (2008). Academic identities under threat?

 British Educational Research Journal, 34(3), 329-345.

 http://dx.doi.org/10.1080/01411920701532269
- Creswell, J. W., & Plano Clark, V. (2017). *Designing* and conducting mixed methods research (3rd ed.). Thousand Oaks, CA: SAGE Publishing.
- Crist, P. (1999). Career transition from clinician to academician: Responsibilities and reflections. *American Journal of Occupational Therapy*, 53(1), 14-19. https://doi.org/10.5014/ajot.53.1.14
- Davies, M. (2011). Concept mapping, mind mapping and argument mapping: What are the differences and do they matter? *Higher Education*, 62(3), 279-301. http://dx.doi.org/10.1007/s10734-010-9387-6
- Ennals, P., Fortune, T., Williams, A., & D'Cruz, K. (2015). Shifting occupational identity: Doing, being, becoming and belonging in the academy. *Higher Education Research & Development*, *35*(3), 433-446.

 http://dx.doi.org/10.1080/07294360.2015.1107
 884
- Falzarano, M., & Zipp, G. P. (2012). Perceptions of mentoring of full-time occupational therapy faculty in the United States. *Occupational Therapy International*, 19(3), 117-126. http://dx.doi.org/10.1002/oti.1326
- Fitzmaurice, M. (2013). Constructing professional identity as a new academic: A moral endeavor. *Studies in Higher Education*, *38*(4), 613-622. http://dx.doi.org/10.1080/03075079.2011.5945
- Forest, J. J. F. (2014). Academe: A profession like no other. In A. Maldonado-Maldonado & R. M. Bassett (Eds.), *The forefront of international higher education—A festschrift in honor of Philip G. Altbach.* Dordrecht: Springer.
- Fortune, T., Ennals, P., Bhopti, A., Nielson, C., Darzins, S., & Bruce, C. (2016). Bridging identity 'chasms': Occupational therapy academics' reflections on the journey towards scholarship. *Teaching in Higher Education*, 21(3), 313-325.

 https://doi.org/10.1080/13562517.2016.114128
 https://doi.org/10.1080/13562517.2016.114128
 https://doi.org/10.1080/13562517.2016.114128
 https://doi.org/10.1080/13562517.2016.114128

- Foy, C. (2017). Identifying barriers and pathways to success for new occupational therapy faculty members: A pilot survey. *Occupational Therapy in Health Care*, *31*(4), 329-340. https://doi.org/10.1080/07380577.2017.135426
- Frantz, J. M., & Smith, M. R. (2013). Exploring the subjective experiences of allied health professionals in their transition from clinical educators to academia: Barriers and facilitators to successful transition. *African Journal of Health Professions Education*, 5(1), 37-41.
- Frenk, J., Chen, L., Bhutta, Z., Cohen, J., Crisp, N., Evans, T., . . . Zurayk, H. (2010). Health professionals for a new century: Transforming education to strengthen health systems in an interdependent world. *The Lancet*, *376*(9756), 1923-1958. https://doi.org/10.1016/s0140-6736(10)61854-5
- Gardner, S. K., & Blackstone, A. (2013). "Putting in your time": Faculty experiences in the process of promotion to professor. *Innovative Higher Education*, 38(5), 411-425. https://doi.org/10.1007/s10755-012-9252-x
- Goodrich, R. S. (2014). Transition to academic nurse educator: A survey exploring readiness, confidence, and locus of control. *Journal of Professional Nursing*, 30(3), 203-212. http://dx.doi.org/10.1016/j.profnurs.2013.10.0
- Grajo, L. (2017). Occupational adaptation. In J. Hinojosa, P. Kramer, & C. B. Royeen (Eds), *Perspectives on Human Occupation—Theories underlying Practice* (2nd ed., pp. 287-311). Philadelphia, PA: F.A. Davis.
- Hardré, P., Beesley, A., Miller, R., & Pace, T. (2011).
 Faculty motivation to do research: Across disciplines in research-extensive universities.

 The Journal of the Professoriate, 5(1), 35-69.
 Retrieved from
 https://www.missouristate.edu/assets/longrangeplan/Faculty_Motivation_to_Do_Research.pd
 f
- Hooper, B., Gupta, J., Bilics, A., & Taff, S. (2018). Balancing efficacy and effectiveness with philosophy, history, and theory-building in occupational therapy education research. *The Open Journal of Occupational Therapy*, 6(1), Article 11. https://doi.org/10.15453/2168-6408.1347
- Hurst, K. M. (2010). Experiences of new physiotherapy lecturers making the shift from clinical practice into academia. *Physiotherapy*, 96(3), 240-247. http://dx.doi.org/10.1016/j.physio.2009.11.009
- Ivey, C., Teitelman, J., Gary, K., Simons, D., Shepherd, J., & Copolillo, A. (2016). Achieving teaching, scholarship, and service through community engagement. *The Open Journal of Occupational Therapy*, 4(3), Article 11. https://doi.cor/10.15453/2168-6408.1267
- Kahanov, L., Eberman, L., Yoder, A., & Kahanov, M. (2012). Culture shock: Transitioning from

- clinical practice to educator. *The Internet Journal of Allied Health Sciences and Practice*, 10(1). Retrieved from http://ijahsp.nova.edu
- Kaufman, R. R. (2009). Career factors help predict productivity in scholarship among faculty members in physical therapist education programs. *Physical Therapy*, 89(3), 204-216. https://doi.org/10.2522/ptj.20080076
- Lieff, S., Baker, L., Mori, B., Egan-Lee, E., Chin, K., & Reeves, S. (2012). Who am I? Key influences on the formation of academic identity within a faculty development program. *Medical Teacher*, 34(3), e208-e215. https://doi.org/10.3109/0142159X.2012.64282
- Matthews, K. (2014). *Perspectives on midcareer faculty and advice for supporting them.* Cambridge, MA: The Collaborative on Academic Careers in Higher Education.
- McKinstry, C., Brown T., & Gustafsson, L. (2014).
 Scoping reviews in occupational therapy: The what, why and how to. *Australian Occupational Therapy Journal*, 61(2), 58-66. http://doi.org/10.1111/1440-1630.12080
- Murray, C., Stanley, M., & Wright, S. (2014a). The transition from clinician to academic in nursing and allied health: A qualitative metasynthesis. *Nurse Education Today*, *34*(3), 389-395. https://doi.org/10.1016/j.nedt.2013.06.010
- Murray, C., Stanley, M., & Wright, S. (2014b).

 Weighing up the commitment: A grounded theory of the transition from occupational therapy clinician to academic. *Australian Occupational Therapy Journal*, 61(6), 437-445.
 - http://dx.doi.org/10.1111/1440-1630.12146
- Pereyra-Rojas, M., Mu, E., Gaskin, J., & Lingham, T. (2017). The higher-ed organizational-scholar tension: How scholarship compatibility and the alignment of organizational and faculty skills, values and support affects scholar's performance and well-being. *Frontiers in Psychology*, 8, 1-17. https://doi.org/10.3389/fpsyg.2017.00450
- Reybold, L. E., & Alamia, J. J. (2008). Academic transitions in education. *Journal of Career Development*, 35(2), 107-128. https://doi.org/10.1177/0894845308325644
- Savickas, M. (2013). The theory and practice of career construction. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (2nd ed., pp. 42-70). Hoboken, NJ: John Wiley & Sons, Inc.

- Savickas, M. L., & Porfeli, E. J. (2012). Career adaptabilities scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661-673. https://doi.org/10.1016/j.jvb.2012.01.011
- Schkade, J. K., & Schultz, S. (2003). Occupational adaptation. In P. Kramer, J. Hinojosa, & C. B. Royeen (Eds.). *Perspectives in human occupation: Participation in life* (pp. 181-221). Baltimore, MD: Lippincott Williams & Wilkins
- Smith, C., & Boyd, P. (2012). Becoming an academic: The reconstruction of identity by recently appointed lecturers in nursing, midwifery and the allied health professions. *Innovations in Education and Teaching International*, 49(1), 63-72.
 - https://doi.org/10.1080/14703297.2012.647784
- Steinert, Y., Mann, K., Centeno, A., Dolmans, D., Spencer, J., Gelula, M., & Prideaux, D. (2006). A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. *Medical Teacher*, 28(6), 497-526.
 - https://doi.org/10.1080/01421590600902976
- Stoykov, M. E., Skarupski, K. A., Foucher, K., & Chubinskaya, S. (2017). Junior investigators thinking about quitting research: A survey. *American Journal of Occupational Therapy*, 71(2), 7102280010p1-7102280010p7. http://dx.doi.org/10.5014/ajot.2017.019448
- Summers, J. A. (2017). Developing competencies in the novice nurse educator: An integrative review. *Teaching and Learning in Nursing*, 12(4), 263-276.
 - https://doi.org/10.1016/j.teln.2017.05.001
- Sutherland, K. A. (2015). Constructions of success in academia: An early career perspective. *Studies in Higher Education*, 42(4), 743-759. http://dx.doi.org/10.1080/03075079.2015.1072
- Weidman, N. A. (2013). The lived experience of the transition of the clinical nurse expert to the novice nurse educator. *Teaching and Learning in Nursing*, 8(3), 102-109. https://doi.org/10.1016/j.teln.2013.04.006
- Wyllie, A., DiGiacomo, M., Jackson, D., Davidson, P., & Phillips, J. (2016). Acknowledging attributes that enable the career academic nurse to thrive in the tertiary education sector: A qualitative systematic review. *Nurse Education Today*, 45, 212-218. http://dx.doi.org/10.1016/j.nedt.2016.08.010

Appendix A

Table A1Study Characteristics (n = 28)

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
Archer (2008) United Kingdom	Younger academics' constructions of 'authenticity', 'success' and professional identity	 Science/math/c omputing, education, psychology/sociology/politics Public research university (Russell group); "old' university (pre-1992); new university (post-1992) Lecturer/research associate/research fellow (5); senior lecturer/senior research fellow (3) 	Understand the nature and formation of contemporary academic identities	Qualitative design using interview data	8 younger academics aged 35 and under, six women and two men, from the fields of science/math/computing (2), education (3), and psychology/sociology/politics (3)	 Feelings of inauthenticity (insecurity and uncertainty) Performative ethos focused on producing the right products Status as contract researchers identified as "threat" to one's position in the academe. Success was defined in terms of self-fulfillment through their work (feeling comfortable and have good relationships), being happy, having good work life balance, being happy in personal life, escape from working class); autonomy and security were crucial to visions of success. Feel academic: Key aspects of being, having, and doing. Being- embodied qualities and practices of being intellectual, critical, and knowledgeable and committed for scholarship; ethical, professional, respectfut collaborative and collegiate and part of wider academic community Feel academic: Having: possessing "insider" knowledge; possession of

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
Billot (2010) New Zealand	The imagined and the real: identifying the tensions for academic identity	 Education, Design, Nursing University (10 years) and a polytechnic aspiring for university status Job described as teaching, research, administration 	Examine the impact of government-driven policy and funding directives on roles and responsibilities of educational professionals.	In-depth interviews	31 academic staff participants (majority were from the School of Education)	appropriate credentials; Doing: performing research related activities, writing publications and conference papers Imposition of the Performance-Based Research Fund (PBRF) and internal drivers to undertake research and publish resulted in shift in academic roles and responsibilities. Pressure to undertake multiple responsibilities, some of which were in conflict (role conflict) Combining priorities and additional professional commitments to disciplines Feelings of failure and lack of control over their performance and distrust of the organization to understand their position. Managing altered responsibilities following organizational change. Roles and responsibilities becoming more demanding and conflicts occur where priorities clash.
Bland, Center, Finstad, Risbey, & Staples (2005) USA	A theoretical, practical, predictive model of faculty and department research productivity	 Medicine Assistant professors or higher working in clinical or basic sciences departments 	Testing the ability of the Bland et al. (2002) model to explain individual and group productivity within the context of a	Quantitative analysis of data from survey done in 2000.	465 medical faculty in one medical school; Were either an MD or PhD; majority tenured or on tenure track.	 Faculty, department, leadership characteristics as necessary for high levels of research productivity. Leadership determines productivity of individuals and departments.

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
			large medical school.			
Boyd & Smith (2014) United Kingdom	The contemporary academic: orientation towards research work and researcher identity of higher education lecturers in the health professions	 Nursing, midwifery, physiotherapy, radiography, occupational therapy Lecturer appointments to a higher education post, some in research- intensive universities 	Understand how lecturers in health professional fields attempt to 'juggle' four areas of work: teaching, leadership, knowledge exchange and research activity.	Online questionnaire/ (structured and open- ended questions). This study focused on the responses to three open questions.	375 lecturers in their first five years of appointment in university posts	 Focused on orientation of lecturers towards research and being a researcher: research environment as a positive aspect of workplace, appreciation of autonomy, formal and informal support for research capacity building Complexity of workplace and academic roles: Juggling different areas of work: teaching, knowledge exchange, research and leadership. Research as a challenging aspect of workplace: lack of time for research, pressure for research activity and outputs Lack of time due to heavy teaching workload and impact on home life work/life balance. Large proportion of participants does not include research activity and identity in their professional development ambitions.
Carra et al. (2017) Australia	Supporting scholarly identity and practice: Narratives of occupational therapy academics	 Occupational therapy Australian university Appointments between 0.2 and 0.8 full-time 	Report on participants' experiences of being and becoming more scholarly academics (part of	Qualitative data from blogs	13 OT faculty who identified themselves as not being "productive researchers", with ages between 25 and 55 years and worked in higher education between one and	Constructing and reconstructing new academic identity (researcher) around multiple roles of an academic and inherent desire to create balance. Reflection and dialogue towards role as

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
		equivalent	an action research project called Growing Scholarship)		20 years.	 teacher as a scholar inclusive of scholarship of teaching and research Sub-themes: striving to reach one's potential, realizing one's potential through collaboration and support
Churchman & King (2009) Australia	Academic practice in transition: hidden stories of academic identities	 Mostly from education, others not identified Australian university Academic positions not described 	Examine the ways academic staff make sense of their workplace when the corporate stories no longer reflect their views of work, institution or personal values.	World café process (hospitable space where attendees are provided meaningful questions to guide discussions)	21 faculty (18 were from education), majority employed by university for less than two years or employed on a casual basis but seeking full-time employment	 Academic loss and fear (those with longer careers): trauma, complexity and isolation brought about by demands of corporate university environment. Isolation and anonymity considered to be safe from corporate measures. For others, a form of passive resistance to unwanted change Academic hope (majority from those employed for less than 2 years, currently doctoral students); academic environment viewed as appealing due to intellectual contributions and freedom to explore ideas but also concerned with threats. These were viewed as a distant event. Sustained through interactions with peers and students. Sense making; avoiding confrontation and challenge, by confining interactions to those who share that identity or

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
Clegg (2008) United Kingdom	Academic identities under threat?	 Variety of disciplines which were not identified. Large urban university with a polytechnic past Teaching is the focus and most academic staff are not research active 	Describe lived experience of academics of one institution.	Interview data (part of an inquiry on academic identities)	13 faculty, practicing as academics for less than a year to over 30 years	 maintaining isolated conditions. University viewed as a conflictual space (never quite being able to meet criteria; ambiguous messages about what is valued.). Strongly framed AI from reflexivity and being. Strong traits: reflexive, intentionality, autonomy, agency, values, beliefs, virtues. Becoming a proper academic is a moving goal, acting in accordance with one's values.
Ennals et al. (2015) Australia	Shifting occupational identity: doing, being, becoming and belonging in the academy	 Occupational Therapy One university in Australia Academic ranks not indicated 	Present initial findings of an ongoing action research project that explore and develop aspects of identity of a group of Australian OT academics.	Action research, Autoethnographic narratives	13 OT faculty who identified themselves as not being "productive researchers", with ages between 25 and 55 years and worked in higher education between one and 20 years.	 Identity described in terms of various roles they enacted. Confusion between what they were doing and sense of identity. Tensions between identities of teacher researcher, and practitioner. Teaching found to be limiting to doing another work that is more enabling to become a scholarly academic. "floundering" in a new world, transition from expert to novice academic Teaching as comfort and camouflage; rookies in an uncertain and changing game Dawning: understanding of performative environment and how to play the academic game

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
						 Expectations of support and atypical routes into academia Envisioning routes to scholarship: sense of possibility, having the capacity to overcome barriers, and sense of shared journey; need for change in department culture participation in action research project outreaching to collaborate.
Falzarano & Zipp (2012) USA	Perceptions of Mentoring of Full- time OT Faculty in the United States	 Occupational Therapy Entry-level masters and doctoral programs Academic ranks included instructor, assistant professor, associate professor, professor and clinical professor 	Describe the occurrence, nature, and perception of the influence of mentoring for full-time OT faculty.	Exploratory, cross- sectional survey	107 OT faculty who were on tenure-track positions or were eligible for reappointment, with years of teaching from 2.5 or less to 23.	 Positive rating of mentoring and influence on academic success and socialization. Mentoring characteristics: Providing information, support Benefits: having someone to go to, ease stress Challenges: not enough time, mentoring not valued
Fitzmaurice (2013) Ireland	Constructing professional identity as a new academic: A moral endeavour	Science, engineering, built environment, business, applied arts, tourism	Explore the role of moral and value dimensions of identity for new academic staff entering higher education	Narrative approach. Semi structured interviews	14 early career academics (ECA) from 4 colleges, 6 disciplines and 10 departments in their first 3 years of lecturing	 Becoming an academic is experienced as a cognitive and emotive process and grounded in virtues of honesty, care, and compassion. Differential status ascribed to teaching and research.

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
		 University-level institute in Ireland Apprenticeship to doctoral education 				Promotion linked to research. ECA not just motivated by performativity but also their hopes and aspirations and values and beliefs underpinning professional work. These include supporting students and opportunity for original thinking and generating knowledge. Teaching and research central to their identity. Finding time for research was an issue due to heavy teaching load. Concerned about workload and how to be good in both teaching and research. Concept of service to others is a defining aspect of a being a good academic: A desire to support others and be goode.e.g. being a good lecturer (preparing and presenting well to students), caring for students, being research active, and finding joy and contentment in work.
Fortune et al. (2016) Australia	Bridging identity 'chasms': OT academics' reflections on the journey towards scholarship	 Occupational Therapy One academic OT department in an Australian university 	Present narratives form OT academics at the end of year-long journey through an action research project focused on	Action research, autoethnographic Narratives	Narratives from 12 OT academics who identified themselves as not being "productive researchers", with ages between 25 and 55 years and worked in higher education between	• Journey: (1) Diminished sense of authenticity because they were not doing research; a limited sense of collaboration and feeling disenfranchised (not fully understanding rules of the game). Being part of the game

(Year of Publication) Country	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
		academic identity and scholarly growth.		one and 20 years, most of whom worked between 1 and 4 days a week. Only two worked for 5 days.	required new skills and knowledge of the game together with a willingness to be measured with the competition; (2) Crossing the first threshold, confronting ordeals, trials, and tests and receiving help of mentors. This phase required reflecting, baring self to others, raising consciousness, creating some discomfort. • Participation in the group resulted in first flush of belonging, seeing the possibility of another self and with a vision; (3) gifts and ahha moments: raised consciousness and new realisations in relation to one's own being and perceptual shifts on how chasms might be bridged. Shifting of identity. • Belonging to Growing Scholarship (GS) was critical in becoming more scholarly; (4) confronting old and new challenges: ongoing identity construction; caution and hope; multiple worlds to be knitted together: personal, institutional and disciplinary. Identity reconstruction involves a process, perspective of belonging, and space of support

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
						for identity shift and scholarly growth.
Foy (2017) USA	Identifying barriers and pathways to success for new OT faculty members: A pilot survey	 Occupational Therapy Accredited Master of OT programs 	Explores the barriers that face new OT faculty members and suggests strategies to assist new faculty members in their transition to academia.	Survey questionnaire 20 open and 12 closed- ended questions	37 OT faculty who transitioned to become fulltime in the last 5 years	 Reasons for entering academia, unanticipated roles and responsibilities, reported barriers, reported strategies for success. New OT faculty members are underprepared for roles and need additional support (role and responsibility clarity, development and continual review of a professional development plan, more thorough new faculty member orientations and mentorship)
Frantz & Smith (2013) South Africa	Exploring the subjective experiences of allied health professionals in their transition from clinical educators to academia: barriers and facilitators to successful transition	 Physical therapy Clinical educators employed by university on part-time or full-time basis Undergraduate level 	Determine the subjective experiences of young academics in their transition from clinicians to clinical educators/academic s.	Phenomenology	7 physical therapists	 Initial journey: challenging and strain on ability to cope. Lacked confidence and competence. Varied ways of dealing with lack of confidence. Ways of dealing linked with personality (control of situation) and personal experience (means of coping and adjustment to academic life and managing teaching and learning demands) Extrinsic factors facilitating transition: supportive environment, peer relationships, mentoring, knowledge of institutional rules.

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
Gardner & Blackstone (2013) USA	"Putting in your time": Faculty experiences in the process of promotion to professor	 STEM fields (6), social sciences (1), humanities (3) Mid-sized public institution who aspire to enhance its research profile Associate professors and full professors 	Understand the experiences of individuals who had sought promotion to full professor	Qualitative study using interviews	10 faculty members who applied to be promoted to full professor in one university	 Timing (putting in one's time)-time requisite /criterion before one could apply but only 2 departments had explicit timelines Lack of clarity on expectations for promotion to full professor. Lack of clarity led to diverse interpretations of criteria within depts. Extent on how 3 areas (teaching, research, service)) were valued varied by discipline.
Goodrich (2014) USA	Transition to academic nurse educator: A survey exploring readiness, confidence, and locus of control	Nursing Accredited nursing programs granting baccalaureate and/or higher degrees	Describe nurse transition to the role of academic nurse educator and investigate the resources and barriers that they experience during career transition. Relationships were explored between levels of readiness, confidence, personal control, support, decision independence, self-esteem and work locus of control	Survey (using several standardized tests)	541 academic nurse educators with fulltime appointment in an accredited nursing program, from less than one to 10 years of experience as educators	 Readiness – medium (mixed feelings about making a career transition Confidence-high (the stronger confidence, the more perseverance with career planning process when difficulties and obstacles occur) Personal control – high (control over career transition process; perceived important factors: effort, interest, personal energy) Support – medium (career decision as independent and interdependent) Self-esteem – moderately high Work locus of control moderately high (internal locus) Relationships: significant positive relationship among all

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
						variables except readiness and personal control • Personal control-strong indicator to achievement of career transition. Personal control is an outcome indicator of a healthy transition; also reflective of mastery of new skills and a stable, identifiable end point.
Hardré, Beesley, Miller, & Pace (2011) USA	Faculty motivation to do research across disciplines in research- extensive universities	 Languages & Literature, Humanities, Social Sciences, Math & Science 28 researchextensive universities Academic ranks of full professors, associate professors, and assistant professors, majority of whom were tenured 	Investigate personal, contextual and motivational factors that influence faculty research productivity across disciplines.	Model testing of factors contributing to research productivity (path analysis). Use of online questionnaire	781 faculty in 4 different academic divisions of 28 US research extensive universities in 17 states.	Personal, contextual, and motivational factors that influence research productivity. Research valuing and research effort had positive influence whereas teaching load had a negative influence.
Hurst (2010) United Kingdom	Experiences of new physiotherapy lecturers making the shift from clinical practice into academia	 Physiotherapy Higher education institution, level not described Lecturer 	Explore how physiotherapists managed the transition from clinical practice into academia	Qualitative, interpretive approach	Eight physiotherapy lecturers, all within 4 years of teaching in higher education	 Expectations and preparation (uncertainty and anxiety; fears of being an inadequate teacher at the beginning of transition; expressed need to develop

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
		appointments				pedagogical skills; there were feelings of excitement and of a new challenge and of assumption of a new role. • Helpfulness of transitional experiences (completion of Post-graduated certification in Higher Education; mixed reflections of usefulness of formal mentoring support; need for more structured induction programme to clarify roles and expectations) • How I coped (informal learning experiences derived from peer support, conversations and teaching observations, familiarity with staff and department procedures) • A new culture (initial lack of confidence to express self during department meetings) • Perceived confidence and contributory factors (becoming more competent and confident with pedagogical skills and feeling more comfortable viewed as indicators of confidence; increased understanding of higher education context and curriculum development also indicators of confidence) • Double professional identities

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
						(shifting from clinician to being a lecturer; others clinging to clinical identity; need to be up- to-date in the physiotherapy field).
Kaufman (2009) USA	Career factors help predict productivity in scholarship among faculty members in physical therapist education programs	 Physical Therapy (PT) Accredited PT programs offering research/doctor al, Masters, Baccalaureate, and specialized programs Academic ranks: Lecturer/instruc tor, assistant professor, associate professor, professor 	Develop a test a model to explain how individual, career, institutional, and work factors to explain variability in peer-reviewed publications, peer-reviewed presentations and peer reviewed grant awards of PT educators.	Cross-sectional survey	568 physical therapy academics, majority were tenured or on tenure track	 PT academics varied in terms of scholarly productivity: More engaged in peer-reviewed presentations than peer-reviewed publications. In the regression models, career factors (rank, tenure status, type of doctoral degree, discipline of highest degree, academic interest, year of appointment, etc.) predicted the largest proportion of variance for career grant awards, career peer-reviewed publications, peer-reviewed presentations.
Lieff et al. (2012) Canada	Who am I? Key influences on the formation of academic identity within a faculty development program	Medicine, SLP, OT, PT, medical physics, microbiology, pharmacy, nutritional sciences, ultrasound,	Explore factors that contribute to the formation and growth of academic identity within the context of a longitudinal faculty development program.	Qualitative case study approach: written reflections and focus group interviews.	43 health professional and health science faculty who were graduates of the Education Scholars Program (ESP)	 Academic identity (AI) plays integral role on well-being, productivity, satisfaction, motivation. Factors affecting AI: personal, relational, contextual

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
Murray	The transition from	clinical biochemistry One university and hospital in Canada Academic ranks not described	Provide a	Oualitative meta-	Studies included:	• Identity shift and maying
Murray, Stanley, & Wright (2014a) Australia	clinician to academic in nursing and allied health: A qualitative meta- synthesis	 Nursing, PT, others not described University programs, levels not indicated 	collective qualitative understanding of the transition experience from nursing and allied health clinician to academic.	qualitative meta- synthesis: 7 studies (2001-2011)	18 nurse academics from 14 different US universities 9 nurse academics from one univ in UK 6 nurse academics from Ireland 5 academics from 4 programs in UK 8 PT academics from one program in UK 6 nurse academics from one program in UK 6 nurse academics from one UK program 6 novice nurse academics and 6 experienced academics from 11 universities	 Identity shift and moving through 4 phases with temporal element indicating that new academics required time to adjust and accept new identity ranging from 1 – 3 years. Phases: feeling new and vulnerable, encountering the unexpected, doing things differently, evolving into an academic
Murray, Stanley, & Wright (2014b) Australia	'Weighing up the commitment: A grounded theory of the transition from OT clinician to academic'	 Occupational Therapy 11 OT programs in Australia Degree level not described 	Explore clinicians' perspectives of what happens when they transition into academia	Constructivist Grounded theory approach	16 OT academics who transitioned into academia within 6 months to 4 years, and working majority of their time in academia.	 Weighing up the commitment process (influenced by level of confidence, support available, decisiveness, stage of life, perception of existing skills, self-efficacy). Process characterized by taxing nature of work, need to learn skills, contrast of clinical and

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
						academic cultures, and success takes time (meeting organizational expectations) Good fit: marker of success in academia- sense of belonging and feeling part of the culture. Reflect on experience of managing transition and finding a personal fit with academic role. Commitment to thinking and working more like a teacher which required cognitive flexibility and persistence Identity shift to being an educator (enjoyed intellectual stimulation and learning environment, being given trust) Personal strategies for building resilience: staying positive, accepting opportunities, embracing change, keeping passionate about work, introspection, seeking peer support, reflecting on student feedback, building relationships with students and peers. Personal qualities: high achievers, hard workers, good communicators, having open doors
Pereyra-Rojas et al. (2017) USA	The Higher-Ed Organizational- Scholar Tension:	 Humanities and social sciences, Natural and 	Test a causal model of factors that play in academic	Quantitative: Model testing; scale development and	12 universities across the US; 803 usable responses	 Academic alignment mediates the effect of scholarship compatibility on scholarship

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
	How scholarship compatibility and the alignment of organizational and faculty skills, values and support affects scholar's performance and well-being	formal sciences, applied sciences and professions Three major university types (highest research, higher research, and moderate research) Academic ranks: from lecturer to emeritus, majority tenured	productivity and over-all well-being.	testing; survey method		productivity. • Academic alignment mediates positive effect of scholarship compatibility on job and life satisfaction.
Smith & Boyd (2012) United Kingdom	Becoming an academic: the reconstruction of identity by recently appointed lecturers in nursing, midwifery and the allied health professions	 Nursing, midwifery, physiotherapy, OT, and radiography Recently appointed lecturers in UK higher education 	Investigate the workplace experiences of recently appointed lecturers in UK as they transition to higher education roles.	Online survey (this paper focused on qualitative analysis of open-ended questions)	Focus of this study: 146 lecturers who had between one and five years experience in higher education	 Managing self: handling of new role and work context. Generally positive (satisfaction from nurturing new prof, and welcome autonomy, flexibility and opportunities) Challenges: heavy workload, learning organizational procedures, understanding higher education language, learning to teach, and marking student work. Stress used to describe experience. Significant challenge: development as a researcher and finding time for researcher activity

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
						 Activities: teaching, maintaining links with clinical role, and research activity A need to maintain credibility as clinical practitioners Having feelings of grief and difficulty letting go of clinician identity Research as a personal priority, pressure from department or institution Pressure reveals tensions for new lecturers. In general, participants felt supported in the workplace. Sustained support in developing scholarship and research activities would be a key factor in helping achieve goals for research and building an academic identity.
Stoykov, Skarupski, Foucher, Chubinskaya (2017) USA	Junior Investigators Thinking about Quitting Research	 Health science, nursing, and medicine Academic medical center Faculty described as junior faculty 	Investigate factors associated with junior investigators who were thinking about quitting research.	Survey using the Comprehensive Model for Career Success in Physician-Scientists and the Clinical Research Appraisal Inventory.	44 junior tenure-track faculty in an academic medical center who were members of the center's research mentoring program	 Low scores on the CRAI-12. Factors associated with quitting: Lower confidence in research skills, reduced job satisfaction, higher levels of burnout.
Summers (2017) USA	Developing Competencies in the novice nurse	NursingAcademic nurse educators from	Identify factors that facilitate or impede nurse educators'	Integrative review of 27 articles (2007 – 2017)	11 quantitative studies 16 qualitative studies Participants of these	 Influence on faculty retention during transition: orientation programs, mentor support, clear

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
	educator: An integrative review	different nursing programs in different countries	transition into an educator role	*Goodrich and Weidman studies included here	studies were all nurse academics	role expectations, ongoing feedback
Sutherland (2015) New Zealand	Constructions of success in academia: An early career perspective	 Science, arts, humanities, commerce, law, social sciences and health sciences Described only as successful ECA nominated by their deans, department heads, academic development unit directors 	Share perspectives of ECA in three countries of constructs of objective and subjective career success	Semi structured interviews	60 successful ECA from 11 universities in Canada, New Zealand, and Sweden; ECA within 7 years of having obtained PhD and/or having been appointed in their first academic position	 Objective career success in academia: research productivity, promotion and tenure, status, teaching performance, salary Subjective career success in academia: life satisfaction, contribution to society, freedom, job satisfaction, influencing students
Weidman (2013) USA	The lived experience of the transition of the clinical nurse expert to the novice nurse educator	 Nursing Nursing programs: Diploma, Associate, Bachelor's, and Master's degrees Novice nurse educators working part-time or full-time in an academic or clinical setting 	To describe and interpret the experience of nurses without any educational theory as they transition from the role of the clinical nurse expert to the novice nurse educator.	Phenomenology through interviews	8 nurses who transitioned to the role of novice nurse educator and has been teaching in a nursing program for less than 2 years	 Desire to teach (have something to share, give back) Additional stress (no background on educational theory) Difficult, stressful, frightening, scary, and overwhelming. Utilizing new skills, frustration in writing and analyzing exam questions, little guidance on teaching strategies and educational practices, evaluating students Mentoring through solid orientation, faculty

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
v						development, and consistent mentoring had an easier transition to the role and felt more competent. There appeared to be a relationship between mentoring and feeling competent, in turn affecting ability to cope with stress of role change.
Murray, Stanley, & Wright (2014b) Australia	'Weighing up the commitment: A grounded theory of the transition from OT clinician to academic'	 Occupational Therapy 11 OT programs in Australia Degree level not described 	Explore clinicians' perspectives of what happens when they transition into academia	Constructivist Grounded theory approach	16 OT academics who transitioned into academia within 6 months to 4 years, and working majority of their time in academia.	 Weighing up the commitment process (influenced by level of confidence, support available, decisiveness, stage of life, perception of existing skills, self-efficacy). Process characterized by taxing nature of work, need to learn skills, contrast of clinical and academic cultures, and success takes time (meeting organizational expectations) Good fit: marker of success in academia- sense of belonging and feeling part of the culture. Reflect on experience of managing transition and finding a personal fit with academic role. Commitment to thinking and working more like a teacher which required cognitive flexibility and persistence Identity shift to being an educator (enjoyed intellectual

Authors' (Year of Publication) Country	Title	Discipline/Higher Education or Job level	Study Purpose	Methods	Participants	Key Findings
						stimulation and learning environment, being given trust) • Personal strategies for building resilience: staying positive, accepting opportunities, embracing change, keeping passionate about work, introspection, seeking peer support, reflecting on student feedback, building relationships with students and peers. • Personal qualities: high achievers, hard workers, good communicators, having open doors
Wyllie et al. (2016) Australia	Acknowledging attributes that enable the career academic nurse to thrive in the tertiary education sector: A qualitative systematic review	 Nursing Nurse academics in universities in the UK, Australia, and colleges in the US Degree levels not described. 	Provide an overview of attributes necessary for success to optimize the development in early career academic nurses.	Qualitative systematic review	9 qualitative nurse only studies (2007-2013)	Attributes necessary for success: a willingness to adapt to change, intention to pursue support, and embodying resilience.

Appendix B

Table B1 *Key Studies Describing Academic Experiences (n=28)*

Themes/	Cha	llenges in Ac	ademia	Adapt	ation in Ac	ademia		F	'actors in	fluencing	g producti	vity		
Authors	Clinician to academic identity shift	Balancing teacher, researcher, and practitioner roles	Under standing the academic culture, expectations, and standards	Positive attitude toward change	Use of resources	Adaptive behaviors	Research productivity	Teaching productivity	Promotion and tenure	Con- fidence	Personal factors	Motiva- tion	Institu- tional	Satisf
Archer		X	X				X					X		X
(2008)														
Billot (2010)		X												
Bland et al. (2005)							X				X	X	X	
Boyd & Smith (20146)		X					X							
Carra et al. (2017)		X		X										
Churchman & King (2009)		X	X	X										
Clegg (200808)			X		X									
Ennals et al. (2015)	X	X	X	X	X	X							X	
Falzarano & Zipp (2012)						X							X	
Fitzmaurice		X			X						X			

(2013)														
Fortune et		X	X	X	X	X								
al. (2016)														
Foy (2017)		X	X			X							X	
Frantz &	X	X				X							X	
Smith														
(2013)														
Gardner &		X	X											
Blackstone														
(2013)														
Goodrich					X									
(2014)														
Hardré et							X				X	X	X	
al. (2011)														
Hurst	X	X	X	X		X				X				
(2010)														
Kaufman							X		X		X		X	
(2009)														
Leiff et al.		X	X		X		X				X	X	X	
(2012)														
Murray et	X	X	X		X	X								
al. (2014)														
Pereyra-							X				X		X	X
Rojas et al.														
(2017)														
Smith &	X	X	X			X							X	
Boyd (2012)														
Stoykov et		X								X				X
al. (2017)														
Summers			X			X							X	
(2017)														
Sutherland		X					X	X	X		X			X
(2015)														
Weidman	X	X									X		X	

(2013)									
Murray	X	X	X	X	X	X		X	
Wright et									
al. (2014b)									
Wyllie et al.				X	X	X			
(2016)									