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**ANDRAGOGY AND LEADERSHIP DEVELOPMENT IN ENTRY-LEVEL  
DOCTORAL OCCUPATIONAL THERAPY EDUCATION**

Tracey Elaine Recigno

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**ANDRAGOGY AND LEADERSHIP  
DEVELOPMENT IN ENTRY-LEVEL DOCTORAL  
OCCUPATIONAL THERAPY EDUCATION**

By

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A Dissertation Submitted in Partial Fulfillment of  
the Requirements for the Degree of Doctor of Philosophy

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Department of Public Health and Health Sciences

Health Sciences Program  
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December 2022

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## ABSTRACT

Leadership development is critical for occupational therapy practitioners to be effective in their varied roles and ultimately is necessary for the sustainability of the occupational therapy profession. Occupational therapy education needs to be the starting point for developing a leadership identity. Best practices in leadership development require that experiences are contextualized and provide opportunities for active learning and reflective practices, yet there is minimal research to understand how occupational therapy educators teach this concept. This dissertation sought to first describe leadership development in occupational therapy and then describe how occupational therapy educators approach leadership education using adult learning principles. The research is grounded in the adult learning theory of andragogy, which connects best practices of leadership development to the needs of occupational therapy students in the classroom as adult learners. This dissertation research included a concept analysis and an explanatory-sequential mixed-methods study. The concept analysis emphasized the paucity of empirical evidence on leadership development. The findings from the analysis supported the development of a proposed theoretical definition. The quantitative phase of the study surveyed entry-level doctoral occupational therapy programs to describe the level of andragogical facilitation employed by educators when teaching leadership. A secondary analysis explored relationships between the educators' characteristics and the level of andragogical facilitation. The qualitative phase of the mixed-methods study used phenomenological interviews to solicit the perspectives of occupational therapy educators on the use of andragogical principles in leadership education. Integrating the concept analysis, quantitative, and qualitative findings assisted in creating a leadership development framework grounded in the core principles of andragogy. Implications are noted for occupational therapy research, education, and practice.

Dissertation Advisor *Jewel Shepherd*

Dr. Jewel Shepherd

## Table of Contents

Doctoral Committee.....	i
Abstract.....	ii
Table of Contents.....	iii
List of Tables.....	vi
List of Figures.....	vii
Chapter 1: Introduction to the Chapter.....	1
Background to the Problem.....	2
Statement of the Problem.....	4
Relevance.....	5
Elements.....	6
Definition of Terms and Variables.....	15
Assumptions.....	15
Methodology Overview.....	15
Summary of the Chapter.....	17
Chapter 2: Literature Review.....	18
Introduction to the Chapter.....	18
Historical Overview.....	18
Relevant Theory.....	31
Summary of Literature.....	34
Chapter 3 Methodology.....	35
Introduction to the Chapter.....	35
Study Design.....	35
Strengths and Challenges of the Design.....	40
Specific Procedures.....	42
Subjects.....	43
Reliability and Validity.....	47
Timeline.....	48

Ethical Considerations and Review .....	48
Funding.....	49
Study Setting .....	49
Instruments and Measures .....	49
Data Collection Procedures .....	50
Data Analyses.....	51
Anticipated Limitations and Delimitations .....	52
Summary of Chapter .....	54
References for Chapters 1 - 3.....	55
Appendix A.....	70
Appendix B .....	74
Appendix C .....	75
Appendix D.....	77
Appendix E .....	81
Chapter 4: Three-Article Dissertation Manuscripts .....	83
Manuscript 1 Developing Leaders of the Profession:.....	83
A Concept Analysis of Occupational Therapy Literature.....	83
Background .....	83
Methods.....	85
Findings.....	89
Discussion of the Conceptual Components.....	98
References .....	102
Manuscript 2 Part I - Developing Leaders of the Profession: Exploring Influential Factors in Leadership Education within Entry-level Occupational Therapy Doctoral Programs .....	113
Introduction and Background.....	113
Methodology .....	117
Results .....	121
Discussion .....	130
References .....	136
Appendix A .....	143
Appendix B .....	145

Manuscript 3 Part II - Developing Leaders of the Profession: Perceptions of Occupational Therapy Educators on the Use of Andragogical Principles in Leadership Coursework.....	149
Background and Literature Review.....	149
Methods.....	153
Results.....	156
Discussion.....	164
References.....	171
Appendix A.....	176
 Chapter 5 General Discussion and Conclusion.....	 178
Introduction.....	178
Summary and Integration of Research.....	179
Implications for Research, Education, and Practice.....	188
Conclusion.....	191
References.....	193
 Comprehensive Reference List.....	 195



## List of Tables

Table 1.1. Leadership Theories.....	11
Table 1.2. Research Questions and Hypotheses .....	13
Table 2.1. B.5.0 and B.7.0. ACOTE Doctoral Standards .....	22
Table 2.2. Interrelated Concepts of Braveman’s Definition of Leadership and Andragogy .....	25
Table 3.1. Explanatory Sequential Design Research Questions.....	39
Table 4.2.1. Personal Characteristics Demographic Data.....	122
Table 4.2.2. Occupational Therapy Educators’ Years of Experience.....	123
Table 4.2.3. Occupational Therapy Educators’ MIPI Factor Scores .....	126
Table 4.2.4. Multiple Regression Results for the MIPI Total Score.....	127
Table 4.2.5. Correlation Analysis of Continuous Variables .....	129
Table 4.3.1. Occupational Therapy Educator Demographics .....	154
Table 5.1. Themes and Sub-Themes of Perceptions on Andragogical Approaches to Leadership Education .....	183

## List of Figures

Figure 1.1. Malcolm Knowles' Principles of Andragogy.....	8
Figure 1.2. A Conceptual Framework for Leadership Education.....	12
Figure 4.1.1. Concept Analysis Key Terms.....	87
Figure 4.1.2. Terms Used in the Database Search.....	88
Figure 4.1.3. Venues for Leadership Development.....	92
Figure 4.2.1. Frequency of ACOTE Standards Taught in Leadership Coursework.....	124
Figure 4.2.2. Histogram of the MIPI Total Score.....	126
Figure 4.3.1. A Comparison of Andragogy and Best Practices in Leadership.....	150
Figure 4.3.2. Leadership Development Within an Andragogical Lens as Shown Through the PEO Model.....	168
Figure 5.1. Three Levels of Integration Within the Mixed-Methods Research Design.....	184

## **Chapter 1: Introduction**

### **Introduction to the Chapter**

Leadership is a complex construct and not well defined in the occupational therapy literature. Despite the ambiguity surrounding the meaning of leadership, the concept has a strong undercurrent within the profession and has been the focus of several past-presidential addresses, lectureships, and opinion papers (Case-Smith et al., 2014; Hinojosa, 2007; Moyers, 2007a; Stoffel, 2013). Most recently, it was included in the fourth iteration of the Occupational Therapy Practice Framework as a cornerstone of the occupational therapy profession (American Occupational Therapy Association, 2020c). The call for leadership has been a central theme in occupational therapy over the last 100 years; mainly in response to the rapid changes and complex needs of healthcare and society (Brown et al., 2014; Hinojosa, 2007; Hitch et al., 2019; Rodger, 2012). This emphasis on leadership is proposed at every level, charging current practitioners in the field as well as students to develop this essential capacity and identity.

Occupational therapy educators are tasked with teaching the essential construct of leadership, yet the profession is unclear what leadership means (Heard, 2014; Sweetman, 2018). The changing landscape of students also serves as another factor to consider when addressing this topic. Each year, more students enter occupational therapy programs and come with unique backgrounds and experiences that influence their learning. With a transition to doctoral-level education eminent, teaching leadership is even more complex (Brown et al., 2015b). It is important to understand how occupational therapy educators are approaching leadership education in the classroom, as the profession relies on future practitioners' leadership to propel occupational therapy continually forward.

Using an explanatory-sequential mixed methods design, through a survey and interviews, the primary investigator sought to understand how occupational therapy educators approach leadership development in entry-level doctoral education. The study used an andragogical lens to identify specifically how these educators used adult learning theory to guide leadership education, whether implicitly or explicitly. The primary investigator solicited a deeper perspective of supporting factors from educators about their use of andragogy within their teaching methods. Using knowledge gained from this inquiry, the primary investigator created a framework for leadership development education to maximize leadership potential for all occupational therapy students and potentially practitioners as well.

### **Background to the Problem**

Occupational therapy is a growing profession and each year more students are enrolling in entry-level occupational therapy education programs. In 2021, 23,436 students were preparing for practice as occupational therapists (American Occupational Therapy Association, 2022). Students entering occupational therapy programs are generally in the age range of 20-25 years; however, some students choose occupational therapy for a second career and may be much older. Occupational therapist education is only offered at the graduate level, meaning that most students have completed their baccalaureate upon entering a program. Currently, there are two points of entry to the profession, either with a master's degree (MSOT, MOT, MAOT) or a clinical doctorate (OTD, DrOT). Recent trends show an increase in the number of entry-level doctoral programs seeking accreditation and will likely result in doctoral programs outnumbering masters' programs within the next five years (Accreditation Council for Occupational Therapy Education [ACOTE], 2022). The shift to doctoral-level education is a frequent topic of discussion within the profession and there is no consensus on whether this should be the new

mandate. Critics of moving to a single point of entry cite concerns around the financial cost to students with limited return on investment and that many academic institutions lack the resources to meet this level of education (American Occupational Therapy Association, 2019; Brown et al., 2015a; Brown et al., 2015b). Conversely, there can be significant benefits moving to an entry-level doctorate and may be critical to the profession's continued success.

Doctoral entry-level education offers additional training and scholarly activities in areas that often move beyond clinical practice. Doctoral-level accreditation standards require that students who graduate from these programs have “in-depth knowledge of delivery models, policies, and systems related to practice” and the ability to “synthesize in-depth knowledge in a practice area with an emphasis on advanced skills in concepts such as research, advocacy, and leadership” (ACOTE, 2018, p. 3). Leadership is an especially important topic in doctoral-level education. Central to occupational therapy education is preparing students to be leaders in the field of occupational therapy. Proponents of the doctorate emphasize future occupational therapists need these advanced skills, so they are best prepared to meet the challenges of healthcare and society (Brown et al., 2015b). Many occupational therapy leaders also emphasize the importance of leadership education for innovation and sustainability of the profession (Heard, 2014; Hinojosa, 2007; Moyers, 2007a; Moyers, 2007b; Stoffel, 2013). Despite the importance placed on developing leadership as an advanced skill in doctoral entry-level education, there is little guidance on how to address this topic. Accreditation standards scarcely articulate the pertinent aspects of leadership that are essential in occupational therapy education. Educators are required to teach leadership, but leadership as a construct is complex and not well-defined in occupational therapy. This poses a significant concern, as this core concept is left to

the interpretation of the occupational therapy educator to determine what and how leadership should be taught.

Occupational therapy is a specialized field and therefore educators who teach in occupational therapy programs are most often occupational therapists. The American Occupational Therapy Association (2020b) considers academia to be an area of practice for occupational therapists, however, many educators have likely not received any formalized training in teaching or adult education theory. Richmond et al. (2016) emphasized the importance of model teachers having a balance of pedagogical knowledge and subject matter expertise and express concern about the lack of formal education for many college instructors. In 2018, less than 1% of the profession had a Ph.D. or ScD, and only 9.6% had a professional doctorate (American Occupational Therapy Association, 2020b). ACOTE (2018) requires that 50% of core faculty have a post-professional doctorate and that all faculty demonstrate expertise in their area of teaching. With a shift to doctoral education, there are concerns around whether educators with clinical doctorates have sufficient skills to prepare students in an academic environment and grow the body of knowledge within occupational therapy (Brown et al., 2015). Teaching advanced concepts such as leadership may be a challenge for occupational therapy educators as some have a background limited to occupational therapy graduate-level education. Educators need to be competent and confident in their knowledge of leadership practices to effectively model these behaviors for students. Without a clear description of what leadership education means to the profession, this may be difficult to convey effectively.

### **Statement of the Problem**

Occupational therapy educators are tasked with teaching complex and abstract topics such as leadership and clinical reasoning. These educators must effectively convey this

information, as people's lives and the livelihood of the profession depend on competent practitioners in the field. Accreditation standards mandate education on leadership, but little direction is provided in how this should occur (Liotta-Kleinfeld et al., 2018). Additionally, adult learners consistent with the demographic of occupational therapy students, present with various life experiences that shape the way they learn and influence their engagement. Andragogy, an adult learning theory, has an important contribution to leadership development by incorporating the unique experiences and motivations adults bring to the classroom to foster optimal educational outcomes (McCauley et al., 2017). More research is needed on how this learning theory is integrated into the classroom. In addition, Heard (2014) noted a significant gap in the occupational therapy literature on leadership theory, noting "a significant disconnect between research in occupational therapy and ongoing theoretical development related to leadership" (p. 2). This paucity of literature needs greater attention.

### **Relevance**

In occupational therapy, leadership is seen as a fundamental skill and social process needed to advance the profession. More importantly, leadership is considered a path to addressing critical societal needs and inequities (Brown, 2006; Hinojosa, 2007; Stoffel, 2013; Tempest & Dancza, 2019). With such a significant focus on leadership, it is important to shed light on what is happening at the start of an occupational therapist's career while they are receiving their education. This first introduction to leadership can shape the future actions and perspectives in the occupational therapist's professional trajectory. Determining how occupational therapy educators are teaching this essential skill and mindset with the adult learner in mind provides critical information on the formative processes in occupational therapy education. A guidepost for *Vision 2025*, the profession's aspirations include developing leaders

so that “occupational therapy is influential in changing policies, environments, and complex systems” (American Occupational Therapy Association, 2017, p 7103420010). Occupational therapy educators must create intentional learning opportunities that foster future practitioners who are reflective and adaptable to meet these complex leadership challenges. This study addressed a gap in knowledge related to leadership in occupational therapy education by identifying what is happening at the curricular level in leadership development. Understanding the background and perspectives of occupational therapy educators on leadership education and its influence on learning strategies selected for use in the classroom guided the development of a framework for effective leadership education in occupational therapy.

## **Elements**

### **Theories**

Typically, educators gravitate towards approaches in which they are most familiar and often are the methods modeled during their education (Fink, 2013). Where pedagogy was once the standard, a newer theoretical perspective offers adult learners a more personalized experience in the classroom. When bridging theory to practice, there are often several theoretical perspectives that guide an educator or therapist (Howe et al., 2020; Ikiugu et al., 2009; Mosey, 1985). The overarching theoretical perspective in this study was the adult learning theory of *andragogy* and its intersection with social learning theory, experiential learning theory, and leadership theory within leadership education.

### ***Andragogy***

In many learning settings, from preschool to graduate education, educators identify their unique pedagogy used in teaching. Pedagogy is defined by Knowles as “the art and science of teaching children” (1973, p. 42-43 as cited in Merriam & Bierema, 2014). For instructors in



higher education, pedagogy fails to capture the unique perspective and experiences adult learners bring to their learning. From this gap, the learning theory of *andragogy* emerged and came to provide a lens through which to view adult education.

Refined as a learning theory by Malcolm Knowles in the 1980s, andragogy gives context to the life experiences of adult learners and incorporates them into the educational experience. Andragogy is the method and practice of teaching adult learners and the latest iteration includes six principles as seen in Figure 1.1. Andragogy emphasizes the importance of contextualizing learning directly to the subject matter, encouraging active exploration and application opportunities situated in real-life scenarios (Brown, 2006; Scott & Webber, 2008). Educators need to operationalize andragogical assumptions through the creation of an active and reflective learning environment, where the educator serves as a facilitator for greater student self-directed learning approaches (Henschke, 2011; Taylor & Kroth, 2009). Creating an environment that demonstrates shared respect and allows the learner to feel their perspective matters, fosters a greater sense of ownership in educational processes. This approach also likely leads to increased engagement by the students and the teacher, as both feel a sense of responsibility to contribute in a meaningful way.

While this approach emphasizes the autonomous nature of the student, it is noted that this model can be viewed on a continuum to balance gaps in learning (Merriam & Bierema, 2014). Instructors should be aware of students' needs and work to meet them in the least restrictive means. Andragogy is not limited to the classroom and its tenets can also be used in the workplace setting, healthcare, and a variety of other environments where adult learning takes place (Henschke, 2011). Wherever adults learn, an andragogy perspective should be used to support this distinctive population.

**Figure 1.1**

*Malcolm Knowles' Principles of Andragogy*

1. Learners need to know	<ul style="list-style-type: none"><li>•Why,What &amp; How</li></ul>
2. Self-concept of the learner	<ul style="list-style-type: none"><li>•Autonomous</li><li>•Self-directing</li></ul>
3. Prior experience of the learner	<ul style="list-style-type: none"><li>•Resource</li><li>•Mental models</li></ul>
4. Readiness to learn	<ul style="list-style-type: none"><li>•Life-related</li><li>•Developmental task</li></ul>
5. Orientation to learning	<ul style="list-style-type: none"><li>•Problem-centered</li><li>•Contextual</li></ul>
6. Motivation to learn	<ul style="list-style-type: none"><li>•Intrinsic value</li><li>•Personal payoff</li></ul>

*Note.* Adapted from “The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development”, by M.S. Knowles, E.F. Holton III, R.A. Swanson, and P.A. Robinson., 2020. Routledge, p. 6.

***A Conceptual Model for Leadership Education***

Andragogy was the central theoretical construct and guiding principle in investigating occupational therapy leadership education. Closely related to the concept of andragogy are experiential learning theory and social learning theory. Leadership theory was also necessary to include when developing leadership behaviors. These theoretical concepts are intrinsically linked when promoting leadership education and provide a more nuanced understanding of how andragogy can be operationalized in the classroom.

Social learning theory plays a critical role in leadership development in the context of adult learning. Originally proposed by Bandura, social learning theory has found its way into leadership literature, valued for the importance of role modeling in building ethical and pragmatic leadership behaviors (Brown et al., 2005) The role modeling process helps to show the adult learner why they need to learn these leadership behaviors and that the topic is of immediate value, which is central to andragogical principles. Role modeling is closely associated with social learning theory, where the student can learn various behaviors vicariously through role modeling, observation and imitating the behaviors, attitudes, and emotional reactions that are consistent with that of the expectations of an occupational therapist. Educators must consider their position in the classroom as leaders, role models, and experienced practitioners. The American Occupational Therapy Association (2009) identified these as key attributes of faculty. Social learning theory lends support to this perspective by identifying the educator as someone who can provide reinforcement (direct and vicarious) of leadership through student observations of their behaviors and viewpoints (Chacko, 2018; Charungkaitkul & Henschke, 2018; Clapp-Smith et al., 2019; McKimm & McLean, 2020). Students also benefit from trying out these behaviors as well when forming a leadership identity.

Therefore, experiential learning is also a key element in effective leadership education and development. Several theorists are known for connecting the importance of experience with learning, namely, Dewey, Kolb, and most significant to this conceptual model, Malcolm Knowles (Merriam & Bierema, 2014). Concepts of andragogy are built upon the foundation of experiential learning and the importance of engaging with the content in a meaningful way. Social learning theory and experiential learning theory are often closely linked together in the active learning experiences of health professions students (Yardley et al., 2012). Engaging in

leadership behavior imitation is also a form of experiential learning in that students can try out the behaviors and problem-solve what works best for them and their leadership style. Andragogy principles are apparent through this problem-solving. This concept has proven effective in other health professions' leadership education (Earis et al., 2016; Yardley et al., 2012). Scott and Webber (2008) posit that experiential leadership learning without exposure to experts in the area of learning can lead to narrow and uninformed viewpoints and lends evidence for this integrated approach. It is also important for occupational therapy educators to model leadership behaviors most consistent with the values of the occupational therapy profession.

Authentic leadership, servant leadership, and transformational leadership are consistent themes in the occupational therapy literature and are reflective of the core philosophical underpinnings of empowerment and service within the occupational therapy profession (Brown et al., 2014; Heard, 2014; Hitch et al., 2020; Stoffel, 2013; Stoffel, 2014; Sweetman, 2018). Scott and Webber (2008) supported the need to orient students within the belief system of their profession to maximize *visionary capacity* (p. e771). Servant leadership is closely tied with experiential learning in that providing service to others is an element of learning by doing (Eva et al., 2019). Transformational leadership theory requires inspiring others to achieve the outcomes and vision of the organization through one's actions (Johnson, 2021). Authentic leadership prompts individuals to be true to their values and to create a culture of trust and mutual respect (Lamb, 2016; Thacker, 2016) This is where occupational therapy educators can serve as role models to inspire students to embody the behaviors of occupational therapy leaders consistent with these leadership theories. Table 1.1 provides an overview of each leadership theory as outlined in Johnson (2021).

Using the intersection of social learning theory, leadership theory, and experiential learning theory through the overarching perspective of andragogy provides an innovative approach to occupational therapy education (Figure 2). Through a more holistic approach to leadership education, students can use previous experiences to inform new behaviors and knowledge. Occupational therapy educators can also lend support by modeling behaviors and providing pertinent feedback as students develop their leadership identity through targeted experiences designed intentionally for the adult learner.

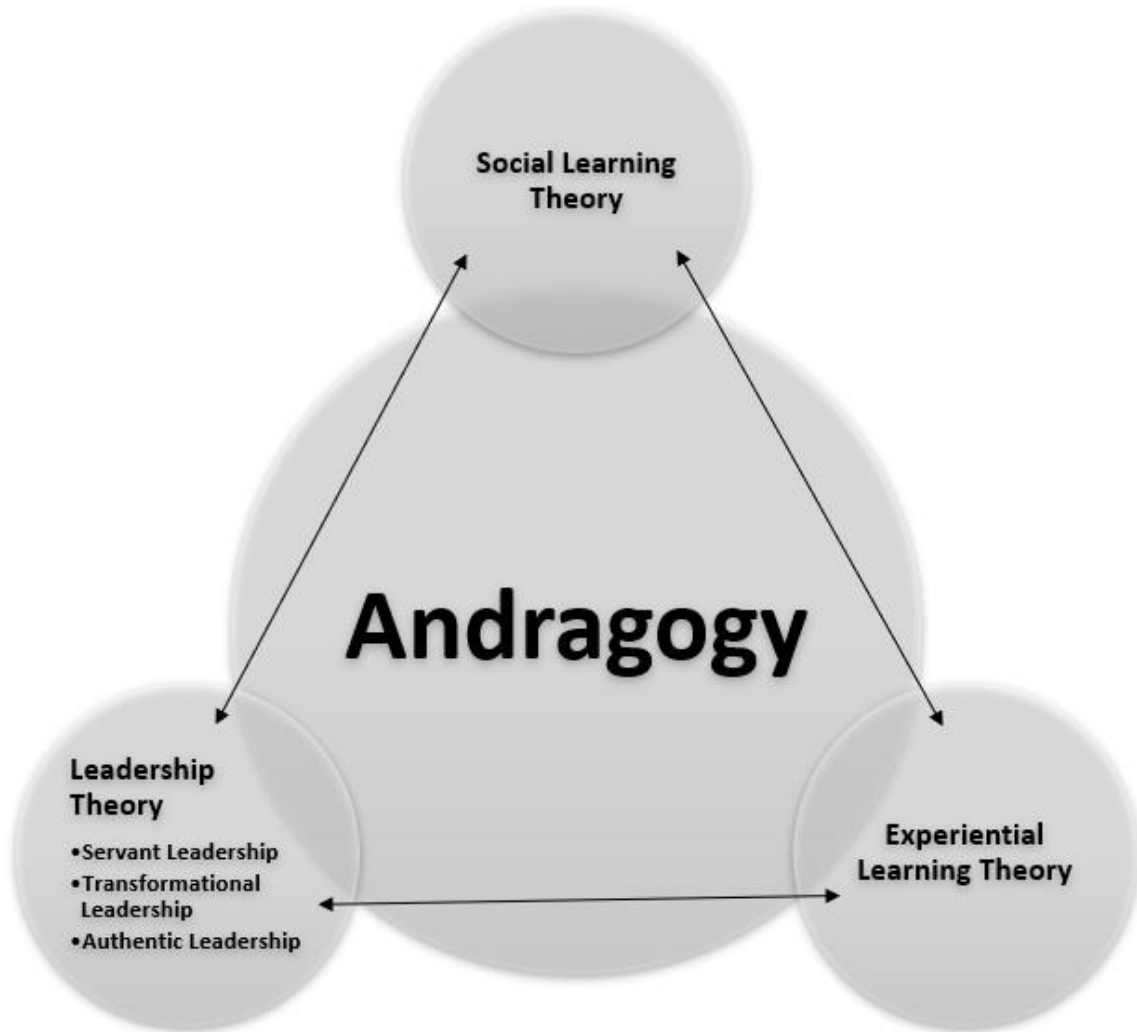
**Table 1.1**

*Leadership Theories* (Johnson, 2021)

<b>Leadership Theory</b>	<b>Primary Theorist</b>	<b>Brief Overview</b>	<b>Key Words</b>
<b>Authentic Leadership</b>	Bill George	“Authenticity [is the] principle underlying all forms of positive leadership” and that leaders are genuine and stay true to their values (p. 255).	<i>Self-awareness, Balanced Processing, Internalized Moral Perspective, Relational Transparency</i>
<b>Servant Leadership</b>	Robert Greenleaf	“Leaders should put the needs of the followers before their own needs” (p. 249).	<i>Stewardship, Obligation, Partnership, Emotional Healing, Elevating Purpose</i>
<b>Transformational Leadership</b>	James MacGregor Burns	“Transformational leaders speak to higher-level needs, such as esteem, competency, self-fulfillment, and self-actualization. In so doing, they change the very nature of the groups, organizations, or societies they guide” (p. 244).	<i>Idealized Influence, Inspirational Motivation, Intellectual Stimulation, Individualized Consideration</i>

**Figure 1.2**

*A Conceptual Framework for Leadership Education*



## Research Questions & Hypotheses

To better understand the view of leadership education from the perspective of occupational therapy educators, the primary investigator posited several fundamental questions. Table 1.2 provides an overview of the primary research question and the explanatory-sequential design methodological research questions with associated hypotheses. This will be discussed in further detail in the methodology chapter.

**Table 1.2**

*Research Questions and Hypotheses*

<b>Research Question: How do educators approach entry-level doctoral occupational therapy leadership education and to what degree do they use andragogical principles?</b>		
<b>Methodology</b>	<b>Research Question</b>	<b>Hypotheses</b>
<b>Quantitative</b>	<ul style="list-style-type: none"> <li>• Descriptive: What level of andragogical teaching do occupational therapy educators use to teach entry-level doctoral leadership accreditation standards?</li> <li>• Explanatory: What factors influence andragogical teaching in occupational therapy educators teaching leadership?</li> </ul>	<ul style="list-style-type: none"> <li>• Occupational therapy educators will be above average in their use of andragogical principles when teaching leadership education standards.</li> <li>• Occupational therapy educators with more experience are more andragogical educators</li> <li>• Occupational therapy educators with post-professional doctorates are more andragogical educators</li> <li>• Occupational therapy educators with more leadership experience are more andragogical educators</li> <li>• Occupational therapy educators who teach leadership separate from management are more andragogical educators</li> </ul> <p><b>Null Hypothesis:</b> Occupational therapy educators will be average or below with their use of andragogical principles.</p>

<p><b>Qualitative</b></p>	<p>What are the perceptions of occupational therapy educators on the use of andragogical principles for leadership development?</p>	<ul style="list-style-type: none"> <li>• Time is a barrier to effective andragogical teaching</li> <li>• Occupational therapy educators are unaware of andragogy as a learning theory</li> <li>• Occupational therapy educators have a natural tendency for “doing” as related to the core tenets of the profession</li> <li>• Occupational therapy educators are unwilling to give up control in the classroom promoting greater teacher-centered learning and impacting <i>planning</i> and <i>delivery</i> factors due to accreditation requirements</li> <li>• Occupational therapy educators are more likely to be empathetic to learners’ needs consistent with professional behaviors of therapeutic use of self</li> </ul>
<p><b>Mixed Methods</b></p>	<p>What are the central andragogical teaching themes that can be used as a framework for entry-level doctoral occupational therapy leadership education?</p>	<ul style="list-style-type: none"> <li>• Andragogical occupational therapy educators act as leader role models in the classroom by sharing their leadership experiences.</li> <li>• Andragogical occupational therapy educators use experiential learning to foster leadership development.</li> <li>• Andragogical occupational therapy educators use empathy and are sensitive to the learners’ needs to promote learning</li> <li>• Occupational therapy education needs to better incorporate learner uniqueness and establish trust</li> <li>• Occupational therapy educators do not teach beyond the required accreditation standards</li> </ul>



## **Definition of Terms and Variables**

Appendix A provides a list of key terms with each associated definition, a description of its characteristics within the study (type of variable), and how it was measured within the study.

## **Assumptions**

Reflexivity is an important part of research and acknowledging one's assumptions is necessary for credibility. In this study, the primary investigator used a hermeneutic phenomenological approach. Hermeneutic phenomenology allowed the primary investigator to make interpretations of their experiences concerning the study topic of interest (Laverly, 2003). In this study, the primary investigator has several years of experience in higher education and has studied adult learning theory. She assumes that andragogy plays an important role in leadership education as it contextualizes the learner's life experiences in a meaningful way. The literature shows that several authors also assume, implicitly or explicitly, that an andragogical approach is crucial to leadership development (Brown, 2006; Clapp-Smith et al., 2019; Dugan, 2011; Hinojosa, 2007; Jeanes, 2021; McCauley et al., 2017; Scott & Webber, 2008). There is still a lack of empirical literature to state this as fact and therefore remained an assumption of the study.

## **Methodology Overview**

To gain a comprehensive viewpoint of educators' approach to leadership education, an explanatory sequential design offered a robust analysis method. Explanatory sequential designs start with gathering quantitative data and uses this information to guide qualitative inquiry for deeper understanding (Creswell & Creswell, 2018; Fetters et al., 2013; Ivankova et al., 2006; McCrudden & McTigue, 2019). A pragmatic approach, the assumption is multiple perspectives

are needed to fully derive knowledge around a research question (Creswell & Creswell, 2018; Fetters et al., 2013).

For this study, the primary investigator recruited occupational therapy educators who teach leadership in entry-level doctoral programs. Individuals who met this inclusion criterion completed a demographic survey, soliciting years of teaching experience, leadership experience, and educational background. The quantitative portion of the study asked educators to complete the *Modified Instructional Perspectives Inventory* (MIPI), a tool that aims to measure the use of andragogical principles in teaching (Henschke, 2016). The primary investigator analyzed data from the demographic survey and MIPI by running descriptive statistics for frequency distributions and measures of central tendency and performed a multiple regression analysis to examine any potential relationships (Portney, 2020).

Within explanatory sequential designs, integration can occur at the methods level and data from the quantitative portion can be used to connect concepts to the qualitative approach (Fetters et al., 2013; McCrudden & McTigue, 2019). The primary investigator originally intended to select individuals who scored above the mean on the MIPI for a follow-up qualitative interview. Due to a small sample size, all educators were included for the qualitative interviews. These interviews aimed to clarify occupational therapy educators' perspectives on their andragogical teaching approach to leadership education. The primary investigator derived interview questions from key findings from the quantitative data. The primary investigator coded the qualitative interview data and develop relevant themes.

Integration of the results was an important part of mixed methods research and was the final step in the explanatory sequential design. Being intentional and transparent in this approach helped limit bias in manipulating outcomes. For this study, the primary investigator used a

mixed-methods research question in addition to quantitative and qualitative questions and as previously mentioned started integration by connecting quantitative analysis with qualitative interview questions. Integration also occurred through the identification of the central andragogical themes that emerge from both types of data to inform the framework on leadership development.

### **Summary of the Chapter**

Entry-level doctoral education must address essential skills of the occupational therapy practitioner, with leadership an important foundation in this training. Without an intentional approach to leadership development, the profession may find practitioners cannot lead effectively. This study sought to understand what is happening within the classroom to promote leadership and further describe the methods used that are grounded in adult learning theory. This data and knowledge can help inform educational strategies offered and recommendations for future accreditation standards to strengthen and foster sustainability of the occupational therapy profession.

## **Chapter 2: Literature Review**

### **Introduction to the Chapter**

Leadership development is a topic well-known and studied in the business and management sphere, however, in occupational therapy education, the topic is somewhat nebulous. Leadership is a complex construct and not consistently defined in the occupational therapy literature. Despite the ambiguity surrounding what leadership means to the profession, the concept has a strong presence within many core documents and philosophical discussions of occupational therapy leaders. A notable gap emerged when considering this topic from an entry-level educational viewpoint. Little is said about leadership within the guidelines and requirements for the education of future occupational therapy practitioners. A review of the literature demonstrated little to no empirical evidence on the topic of leadership development in entry-level education. Comparing this with other health professions, this appeared to be a consistent theme, although nursing and medical education have emerging bodies of evidence. A strong theoretical approach to adult learning is necessary to create effective leaders. Using the adult learning theory lens of andragogy for leadership education has its advantages and drawbacks. There are multiple contexts in which occupational therapy needs to consider leadership development and both students and professionals could benefit.

### **Historical Overview**

#### **Call for Leadership**

The call for leadership has been a central theme in occupational therapy over the last 100 years. Several past-presidential addresses, prestigious lectureships, and solicited opinion papers focused on the topic of leadership and the need to foster future leaders (Case-Smith et al., 2014; Hinojosa, 2007; Moyers, 2007a; Stoffel, 2013). These articles and lectureships were mainly in

response to the rapid changes and complex needs of healthcare and society or the result of a paradigm shift within the profession (Brown et al., 2014; Case-Smith et al., 2014; Hitch et al., 2019; Rodger, 2012). More recently, leadership was included in core documents of the profession. Within the fourth iteration of the *Occupational Therapy Practice Framework*, leadership is identified as a cornerstone of the occupational therapy profession (American Occupational Therapy Association, 2020c). The term *leaders* appeared as a guidepost in *Vision 2025*, the vision statement of the profession (American Occupational Therapy Association, 2017). And while leadership was explicitly mentioned in these critical documents, the concept was not given significant parameters or definitions in which to use as a guide and was presented only superficially. Within these discussions, the emphasis on leadership was proposed at every level, charging current practitioners in the field as well as students to develop this essential capacity and identity. Despite this, the context of the literature suggested that leadership is more of a reactive measure and primarily directed towards practitioners in the field as a tool needed to overcome the next big challenge within occupational therapy. Little consideration was given to leadership development as a preemptive approach.

While leadership was a consistent thread in the professional literature and official documents, there was a noticeable dearth of leadership within core entry-level educational materials. One notable document that did not have a distinct emphasis on leadership is the American Occupational Therapy Association's (2010) "Blueprint for Entry-level Education". This document provided occupational therapy programs a basis and overview of the fundamental knowledge occupational therapy students are expected to gain from their entry-level education. The term *leadership development* appeared on the list of concepts under the category of *professional development* and substantiated this as a necessary component of OT education,

however little more is articulated about the context and importance of this construct. “A Descriptive Review of Occupational Therapy Education” (American Occupational Therapy Association, 2016) also did not use leadership development as a distinctive outcome or variable amongst the different types of educational degrees offered in the profession. Leadership development was not mentioned in the “Philosophy of Occupational Therapy Education” (American Occupational Therapy Association, 2018). This insignificant mention of leadership was also reflected in one of the most pertinent educational documents, the accreditation standards for entry-level education.

### **Educational Standards in Occupational Therapy**

Leaders and academics within the occupational therapy profession give much attention to the topic of leadership and emphasize the importance of educating future practitioners to become competent leaders. Both entry-level and post-professional occupational therapy programs identify the need to make leadership a core construct threaded throughout a curriculum (Copolillo et al., 2010; Heard, 2014; Liotta-Kleinfeld et al., 2018; Mitcham, 2014). Even though the philosophy of occupational therapy education does not indicate leadership to be a value, many individual occupational therapy programs included this concept in their program philosophy of education (Liotta-Kleinfeld et al., 2018). To emphasize the necessity of leadership and require it to be a core component of occupational therapy curricula, accreditation standards are the most direct means of ensuring the inclusion of this topic. Leadership and related concepts are currently a requirement of accreditation in occupational therapy, but this was not always the case.

Historically, occupational therapy education fell under the guidance of the “Essentials and Guidelines for an Accredited Educational Program for the Occupational Therapist” from

1935 until 1998 (American Occupational Therapy Association, 1991) and the “Standards for an Accredited Educational Program for the Occupational Therapist” (American Occupational Therapy Association, 1999) from 1998 to 2007. Neither of these documents made any mention of leadership. Not until the profession moved to a master-degree entry point and doctoral-level education standards were first introduced did the concept of leadership overtly appear in the profession’s accreditation standards (American Occupational Therapy Association, 2007). This marks almost 90 years of the profession without a focus on leadership education required in occupational therapy curricula.

Today, curricula in occupational therapy are largely driven by accreditation standards. In the 2018 Accreditation Council for Occupational Therapy Education (ACOTE®) Standards (2018), leadership is explicitly addressed in the preamble, the B.5.0. *Context of Service Delivery, Leadership, and Management of Occupational Therapy Services* standards and implicitly in the B.7.0. *Professional Ethics, Values, and Responsibilities* standards. Table 2.1 provides a sample of the full standards with leadership highlighted in bold. There are, however, inherent limitations in how these standards are currently written and organized. The standards that distinctly mention leadership are embedded within a section that has a clear emphasis on management skills. This perspective limits the full range of skills and contexts where occupational therapists can employ leadership behaviors. And without an explicit link to leadership within the B.7.0. standards, students and educators may not make important connections of these behaviors with those of a leader. Even more concerning, is that programs only need to demonstrate minimal compliance with each standard. This means that leadership could be taught through lecture and assessed with multiple-choice exams, which is far from best practices in leadership development. The occupational therapy accrediting body gives little direction on the profession’s definition of

leadership and how these leadership standards should be taught or assessed, further leading to unclear notions on how to develop leadership.

**Table 2.1**

*B.5.0. and B.7.0. 2018 ACOTE® Doctoral Standards (ACOTE, 2018)*

<p><b>B.5.0. CONTEXT OF SERVICE DELIVERY, LEADERSHIP, AND MANAGEMENT OF OCCUPATIONAL THERAPY SERVICES</b></p> <p>Context of service delivery includes knowledge and understanding of the various contexts, such as professional, social, cultural, political, economic, and ecological, in which occupational therapy services are provided. Management and <b>leadership skills</b> of occupational therapy services include the application of principles of management and systems in the provision of occupational therapy services to persons, groups, populations, and organizations. The program must facilitate development of the performance criteria listed below. The student will:</p>	
<p><b>B.5.1. Factors, Policy Issues, and Social Systems</b></p>	<p>Identify, analyze, and evaluate the contextual factors; current policy issues; and socioeconomic, political, geographic, and demographic factors on the delivery of occupational therapy services for persons, groups, and populations to promote policy development and social systems as they relate to the practice of occupational therapy.</p>
<p><b>B.5.2. Advocacy</b></p>	<p>Identify, analyze, and advocate for existing and future service delivery models and policies, and their potential effect on the practice of occupational therapy and opportunities to address societal needs.</p>
<p><b>B.5.3. Business Aspects of Practice</b></p>	<p>Demonstrate knowledge of and evaluate the business aspects of practice including, but not limited to, the development of business plans, financial management, program evaluation models, and strategic planning.</p>
<p><b>B.5.4. Systems and Structures that Create Legislation</b></p>	<p>Identify and evaluate the systems and structures that create federal and state legislation and regulations and their implications and effects on persons, groups, and populations, as well as practice and policy.</p>
<p><b>B.5.5. Requirements for Credentialing and Licensure</b></p>	<p>Provide care and programs that demonstrate knowledge of applicable national requirements for credentialing and requirements for licensure, certification, or registration consistent with federal and state laws.</p>
<p><b>B.5.6. Market the Delivery of Services</b></p>	<p><b>Demonstrate leadership skills</b> in the ability to plan, develop, organize, and market the delivery of services to include the determination of programmatic needs and service delivery options, and formulation and management of staffing for effective service provision.</p>
<p><b>B.5.7. Quality Management and Improvement</b></p>	<p><b>Demonstrate leadership skills</b> in the ability to design ongoing processes for quality management and improvement (e.g., outcome studies analysis and client engagement surveys) and develop program changes as needed to demonstrate quality of services and direct administrative changes.</p>



<b>B.5.8. Supervision of Personnel</b>	Develop strategies for effective, competency-based legal and ethical supervision of occupational therapy and non-occupational therapy personnel. Analyze staff development and professional abilities and competencies of supervised staff as they relate to job responsibilities.
<b>B.7.0. PROFESSIONAL ETHICS, VALUES, AND RESPONSIBILITIES</b> Professional ethics, values, and responsibilities include an understanding and appreciation of ethics and values of the profession of occupational therapy. Professional behaviors include the ability to advocate for social responsibility and equitable services to support health equity and address social determinants of health; commit to engaging in lifelong learning; and evaluate the outcome of services, which include client engagement, judicious health care utilization, and population health. The program must facilitate development of the performance criteria listed below. The student will be able to:	
<b>B.7.1. Ethical Decision Making</b>	Demonstrate knowledge of the American Occupational Therapy Association (AOTA) Occupational Therapy Code of Ethics and AOTA Standards of Practice and use them as a guide for ethical decision making in professional interactions, client interventions, employment settings, and when confronted with personal and organizational ethical conflicts.
<b>B.7.2. Professional Engagement</b>	Demonstrate knowledge of how the role of a professional is enhanced by participating and engaging in local, national, and international leadership positions in organizations or agencies.
<b>B.7.3. Promote Occupational Therapy</b>	Promote occupational therapy by educating other professionals, service providers, consumers, third-party payers, regulatory bodies, and the public.
<b>B.7.4. Ongoing Professional Development</b>	Identify and develop strategies for ongoing professional development to ensure that practice is consistent with current and accepted standards.
<b>B.7.5. Personal and Professional Responsibilities</b>	Demonstrate knowledge of personal and professional responsibilities related to: <ul style="list-style-type: none"> <li>• Liability issues under current models of service provision.</li> <li>• Varied roles of the occupational therapist providing service on a contractual basis.</li> </ul>

### Definitions of Leadership in Occupational Therapy

A standard definition of leadership was elusive in the broad body of literature across multiple perspectives. Each discipline, textbook, and author provided a nuanced description from their perspective on this complex concept. The occupational therapy literature was no different, with practitioners, scholars, and leaders offering their take on what leadership means to the profession. Copolillo et al. (2010) identified leadership as a mix of skills and knowledge, enacted

within the constraints of context. Liotta-Kleinfeld (2018) noted leadership to be a “trait, skill, and attitude” (p. 3). Former American Occupational Therapy Association (AOTA) president, Virginia Stoffel, identified leadership as a “process of influence” and that the profession needs heartfelt leaders, who can intuit the needs of others, establish relationships, and act with compassion (Stoffel, 2013, p. 634). Dunbar-Smalley (2022) provided a more comprehensive view, defining leadership as “a process that involves a significant degree of complexity through interactive and relational operations in order to meet the goals of individuals or groups” (p. 5). Despite the varying viewpoints presented, there were still gaps in understanding explicitly what leadership means to the profession.

Though the profession’s view on definitions of leadership were consistently inconsistent, the core values of occupational therapy remain steadfast through the years. Recent trends in the occupational therapy literature summon occupational therapists to articulate the profession’s distinct value (Lamb, 2018). According to Brown (2006), “leadership is the enactment of values” (p. 702). This idea moves closer to thinking about occupational leadership within a societal lens and one in which the core tenets of the profession can emerge. A leadership definition in occupational therapy needs to consider the broad contexts in which therapists practice, not just with individuals within institutions but also in communities and systems. Occupational therapy scholar Brent Braveman’s definition of leadership, which stated, “leadership is a process of creating structural change wherein the values, vision, and ethics of individuals are integrated into the culture of a community as a means of achieving sustainable change” offered a more robust view of leadership for the profession (Braveman, 2022, p. 6). In his definition, leadership is more than a person; it is an adaptable process that empowers lasting positive change.

This definition fits well with the concepts of andragogy and considers the context of the adult learner within leadership constructs (Table 2.2). Occupational educators face a significant challenge translating this leadership perspective to students within entry-level education. As a complex and fluid construct, leadership development depends on effective educational strategies that can connect abstract ideas to tangible life experiences. While there was a lack of substantial evidence connecting leadership and andragogy, the underlying tenets of the adult learning theory show a promising relationship to occupational therapy leadership definitions. Occupational therapy educators need to consider how these concepts interconnect when creating leadership development opportunities for students.

**Table 2.2**

*Interrelated Concepts of Braveman’s Definition of Leadership and Andragogy*

<b>Braveman’s definition of leadership (Braveman, 2022)</b>	<b>Andragogical principles (Knowles et al., 2020)</b>
Leadership is a process...	Readiness to learn
...of creating structural change...	Learners need to know Orientation to learning
...wherein the values, vision, and ethics of individuals...	Self-concept of the learner Prior experience of the learner
...are integrated into the culture of a community...	Readiness to learn Orientation to learning
...as a means of sustainable change	Motivation to learn

### **Leadership Development in Occupational Therapy Education**

There was a significant deficiency of literature that discussed how leadership is effectively developed in occupational therapy education in the United States and globally. A thorough review of various journals and publications revealed no systematic reviews or scoping reviews on leadership development. Several authors and theorists proposed models for leadership development but do not provide any evidence on the efficacy of these models. From a Canadian

perspective, the Leadership in Enabling Occupation (LEO) model articulated the interrelated features of scholarship, accountability, funding, and workforce planning in *optimal* leadership development within the occupational therapy lens (Lapointe et al. 2013; Townsend et al., 2011). The main goal of LEO was to promote leadership with the ultimate goal of health, well-being, and justice through occupation. Mentorship in this area was directed at professionals in the field, leaving student leadership development out of the dialogue. Moyers (2007a) proposed a cyclical model grounded in core leadership theory and proposed developing occupational therapy leaders by “endorsing the vision, challenging the process, taking action, and building community and collective identity” (p. 624). Although Moyers did not clearly articulate a definition of leadership, she emphasized the importance of building *leadership capacity* within occupational therapy education and practice. This model had promising direction with a well-rounded approach that could be used by practitioners and students alike, although it never gained traction to move beyond the presidential address where it was introduced. Taking leadership models a step further, Liotta-Kleinfeld et al. (2018) provided a framework for a robust occupational therapy leadership education curriculum using the Social Change Model (SCM) of Leadership Development. However, reporting of the outcomes was not systematic, and the authors only offered anecdotal student experiences and noted that the quantitative data was still in the analysis phase looking to determine whether there were statistically significant changes in the Socially Responsive Leadership Scale (SRLS) scores that are connected with the SCM. These leadership development models and frameworks did not reveal empirical evidence to support their use, so it may be more useful to look at individual programmatic attempts at leadership development to determine if there is an efficacious approach.

### ***Leadership in Post-professional Occupational Therapy Education***

Evaluating the occupational therapy literature on leadership educational methods showed that little research is available. What was presented often evaluated perspectives of occupational therapy practitioners already in the field returning to advance their education in a post-professional doctoral program. Considering an andragogical perspective, these individuals were at an advantage with significant professional experience in which to draw upon when further developing leadership behaviors. A study by Sweetman (2018) used a narrative qualitative approach to explore perceptions of transformative changes in leadership knowledge and skills while occurring in an online context. In a review of discussion board posts (n=162) and course evaluations (n=113), the author found that students developed new knowledge around leadership through the course activities of reflection, reading, peer support, and TED talks. Similar to the approach used by Liotta-Kleinfeld et al. (2018), Copolillo et al. (2010) described a post-professional doctorate program's journey to integrating leadership as a core theme within their curriculum. Anecdotal outcomes of student perceptions of leadership were presented, but there were no empirical results to indicate whether this program was successful in building occupational therapy leaders. Richardson et al. (2008) evaluated post-professional master's students' satisfaction with various professional-related skills after completing their program through an online survey (n=49). The authors noted an increase in involvement in leadership activities after the program. While this article was helpful to see extrinsic outcomes beyond perceived leadership gains after participation in an educational experience, the main limitation was that this program did not have an explicit leadership development component. Additionally, over the last few years, the educational paradigm has shifted to doctoral-level preparation and post-professional master's programs are no longer offered as a means of replication of this study. And while post-professional leadership development was helpful to explore, these programs

were not held to entry-level accreditation standards and did not prepare future occupational therapy practitioners for leadership in the field.

### ***Leadership in Entry-level Occupational Therapy Education***

There were few studies that investigated leadership development in an entry-level occupational therapy student population. Studies completed in the field were mainly quantitative and explored student perceptions of leadership development through experiential and mentoring-related activities. Gafni Lachter and Ruland (2018) described outcomes of a mixed-methods study on a peer mentoring program in an entry-level occupational therapy master's program to promote leadership skills. 47 subjects were recruited and the authors reported statistical significance ( $p=.001$ ) on the Multifactor Leadership Questionnaire (MLQ), which measured changes in leadership skills. The open-ended qualitative feedback solicited in the survey identified outcomes related to student perceptions of the experience but did not relate to leadership behaviors. A study by Recigno et al. (2020) focused on evaluating changes in student perceptions of leadership after participation in the doctoral capstone experience using the Student Leadership Practices Inventory (SLPI). The authors reported statistically significant changes in student leadership perspectives ( $p= 0.00007$ ) but were narrow in scope only measuring outcomes related to the doctoral experiential component and were not inclusive of didactic education. In addition, these two studies focused primarily on changes in student perceptions and did not provide a 360-degree perspective of leadership outcomes, which would offer a more objective evaluation. Hendricks and Toth-Cohen (2018) completed a qualitative study intended to highlight the perceptions of occupational therapy students who participated in a leadership development camp in South Africa. Using a structured qualitative interview based on authentic leadership principles, a model of authentic leadership development emerged. Students identified

temporal themes, noting their leadership development is that of a “continuum” (p. 6). While this article provided a diverse and global perspective on entry-level leadership education, it was not reflective of United States accreditation standards. This review of the literature revealed a total of three studies that contributed to the knowledge base on occupational therapy leadership development.

At this juncture, there was all but a complete absence of empirical studies on entry-level leadership development in the occupational therapy literature. This may be linked to the current lack of a defined understanding of the concept of leadership in the profession and clear accreditation standards that articulate a requirement for the development of leadership behaviors and concepts outside of a management perspective. It may be helpful to understand whether this is a phenomenon specific to occupational therapy education or if other health professions also have limited research in this area.

### **Higher Education and Health Professions’ Best Practices in Leadership Development**

While not the focus of this study, it may be helpful to briefly explore the literature within higher education and specifically within other health professions to determine what perspectives and processes they use to develop leadership. Within higher education, there was much discussion on how to develop leadership skills and behaviors, although little consensus (Winston & Patterson, 2006). It is first important to consider students as adult learners and provide learning opportunities that are contextualized within their field of study and embedded in life experience (Brown, 2006; McCauley et al., 2017; Scott & Webber, 2008). Leadership development needs to be an active and reflective learning process and emerges over time and with experience (Dugan, 2011; Foli et al., 2014; Heard, 2014; Pinnington, 2011). Helping students create a leadership identity was also fundamental to seeing the integration of leadership

behaviors into practice (Clapp-Smith et al., 2019; Dugan, 2011; McKimm & McLean, 2020). Health professions have a vested interest in developing leadership within future practitioners.

In doing a cursory review of leadership development in other health professions, nursing and medical education demonstrated the most representation of research in this area. This was mentioned by Heard (2014) when noting the lack of occupational therapy articles and the robust leadership literature base of nursing. Nursing and medical education devoted significant resources and scholarship to leadership development (Cadieux et al., 2017; Foli et al., 2014; Morrow, 2015; Sadowski et al., 2018). Medical education placed a strong emphasis on leadership and a study by Sadowski et al. (2018) sought to critically analyze the literature on this topic to guide future programs. The authors conducted a systematic review of 52 articles and indicated that overall the quality of the studies was low. Sadowski et al. (2015) indicated that leadership development methods were similar in nature and relatively ineffective in their approach. The authors highlighted effective processes that were found to be present in the more rigorous studies. Nursing also had a focus on leadership in its entry-level programs and Morrow (2015) sought to critically analyze the literature on this topic. A review of 13 peer-reviewed articles demonstrated themes that focus on “teaching strategies or curriculum revisions” with an emphasis on evaluating and implementing active learning strategies (p. 368). Morrow concluded that additional studies are needed on effective leadership development strategies in nursing education. Andragogy was also specifically mentioned in the nursing and medical literature (Misch, 2002; Morrow, 2015). Despite the level of more rigorous study on the topic of leadership within nursing and medical education, the outcomes of these critical analyses revealed this skill to be a challenge for these health professions.



Physical therapy literature required a brief assessment as well, as this profession draws the closest comparison with occupational therapy in history and philosophy. When looking to the physical therapy literature, the profession usually most associated with occupational therapy, available evidence revealed a similar lack of empirical studies with no systematic reviews or scoping reviews available on the topic. One article, LoVasco et al. (2019) found that a structured leadership development course had statistical significance in promoting increased leadership practices of physical therapy students. This was one of the few articles that looked specifically at leadership development. Other health professions, including occupational therapy, have yet to see a robust literature base that focuses on strategies for effective leadership development within entry-level curricula.

## **Relevant Theory**

### **Relevant Concepts**

Educators need to guide learning with intention and use relevant educational theories for effective outcomes. Andragogy, the study of adult learning, provides a lens that considers the unique experiences and motivations adult learners bring to their educational context (Jeanes, 2021; Knowles et al., 2020; McCauley et al., 2017). This educational theory offers an important perspective in fostering learning for adult students.

Andragogy offers many benefits to its learners. Andragogy acknowledges that adults hold more roles (spouse, parent, employee, etc.) than that of a school-aged child and these roles often are the premise for engaging in learning activities. By using an adult-centered approach to teaching, learners can demonstrate increased engagement with the learning material, leading to greater autonomy and immediate carry over into their daily responsibilities (Ozuah, 2005). Andragogy can also be a powerful tool for leadership development, connecting past experiences

for the skills needed for future success (Brown, 2006; Jeanes, 2021; McCauley et al., 2017). Instructors recognize and integrate the depth of experiences adults bring to the learning environment and use this as a spring board for education (Charungkaitkul & Henschke, 2018; Merriam & Bierema, 2014). Adults may feel more validated in this collaborative environment and in turn, can further support motivation in pursuing an educational venture.

While there may not be an apparent downside to andragogy, there are still inherent limitations. Research on andragogy is limited and did not offer empirical evidence to support its assumptions (Merriam & Bierema, 2014; Ozuah, 2005; Rachal, 2002; Taylor & Kroth, 2009). There is, however, an abundance of literature that looks more in-depth at specific assumptions such as problem-based learning, motivation, and self-directed learning. Critical perspectives shed light on the limited scope of using andragogy as the only approach in adult education. Some adults may not have previous experience or knowledge base and require greater support in their learning, necessitating a traditional pedagogical approach (McCauley et al., 2017; Ozuah, 2005). Misch (2002) argued that solely looking at a student's internal drive is "simplistic, misleading, and counterproductive" to understanding what motivates some students in their studies (p. 153). Andragogy was also criticized for not considering the role of sociocultural influences in learning, which can leave the learner feeling isolated (Merriam & Bierema, 2014). In general, the concept of andragogy is not well understood and its inadequate development as a theory with supporting literature and data results in a lack of integration in higher education (Henschke, 2011; Misch, 2002). This was apparent as the term is not common vernacular in higher educational settings or well represented in the literature on evidence-based teaching.

## Relevant Contexts

Some educators may feel that occupational therapy students are not ready to develop leadership behaviors and that leadership is better developed through experiences out in the field and not the classroom. This idea was cited as one of the pervasive myths about leadership development (Dugan, 2011). The perception that leadership can only be fostered through formal training and experiences in practice negates the students' ability to draw upon previous leadership life experiences and create a leadership identity rather than skillset. Clapp-Smith et al. (2019) encouraged students to reflect on critical leadership experiences that may have occurred during involvement with sports, volunteer experiences, a part-time job, or even within their home life. These experiences help contextualize leadership and create a tangible vision of the multi-facets and situations where this emerges. Leaders within the field strongly urge occupational therapy education to embed leadership development throughout the curricula and to empower students to view leadership as a career path and not just a skill (Heard, 2014). The entry-level classroom is a viable environment for leadership development when the educator is skilled in linking adult learning needs with fostering leadership identity and capacity.

While the main argument in this study is embedding leadership development in the occupational therapy curriculum, using a conceptual model for leadership development does not have to be limited to entry-level graduate education. Occupational therapy practitioners work in settings that are rapidly changing and evolving, including healthcare and school-based systems. Hinojosa (2007) emphasized the need for practitioners to be prepared for an *era of hyperchange* and this requires strong leadership. Using an andragogical approach, supported by social learning, experiential learning, and a focus on leadership models used in the profession can also provide a helpful structure for leadership education in the occupational therapy post-professional

environment. Occupational therapy managers, supervisors, and educators outside of entry-level programs can use this model to guide educational opportunities to support leadership development.

Leadership education in occupational therapy should be tailored to the needs of the profession and consider the unique perspective needed to be a leader in the field. It is not sufficient to take business pedagogy and apply it to health professions (Cadieux et al., 2017). Accounting for contextual differences is necessary when thinking about applying leadership development strategies (Pinnington, 2011). Despite the variability in entry-level and professional practice, using a meaningful leadership development framework that draws from the specific needs of the profession could be effective. Making leadership a core construct of entry-level education and professional level development can support the path to this powerful identity (Heard, 2014). Both contexts are ripe for a paradigm shift in how occupational therapy creates future leaders.

### **Summary of Literature**

There was a notable dearth of literature that discussed the effectiveness of leadership development in occupational therapy education. Studies done in the field have been mainly exploratory and measured student perceptions of leadership development through experiential and reflective activities. Other studies focused primarily on outcomes of post-professional program education, demonstrating cursory effectiveness in developing leadership. It is unclear why this topic is under-researched in entry-level curricula, as it is apparent that leadership is an important construct to the longevity and sustainability of the profession. It may be helpful to start at the beginning of the educational process and evaluate how occupational therapy educators approach leadership education in the classroom.

## **Chapter 3 Methodology**

### **Introduction to the Chapter**

In research, there are numerous methods a researcher can employ to study a phenomenon accurately and ethically. Mixed method designs use both quantitative and qualitative procedures to effectively describe a particular area of study (Creswell & Creswell, 2018; Fetters et al., 2013; Ivankova et al., 2006; McCrudden & McTigue, 2019). In recent years, research experts assert integration is a core element of true mixed methods designs (Creswell & Creswell, 2018; Levitt et al., 2018; O’Cathain et al., 2008). This methodology section focuses on the explanatory sequential design mixed methods approach and its use for a health profession’s contemporary educational challenge. Hermeneutic phenomenological interviews complement online survey methodology to understand occupational therapy educator’s approach to leadership education. Due to the small population size of 121 programs at the time of the study, the primary investigator recruited all potential members of the population as participants using non-probability purposive sampling. In the data analysis phase, the holistic approach of mixed methods allowed the primary investigator to examine the results of the descriptive and inferential statistics of the quantitative study in relation to coded themes from qualitative data to inform an integrated framework on leadership education. While limitations are inherent in any research study, the design helped mitigate these factors.

### **Study Design**

#### **Explanatory Sequential Design**

Mixed methods research lends a high degree of rigor to a research study, using both qualitative and quantitative procedures to holistically describe a phenomenon. Subcategories within mixed-method designs offer varying approaches to the sequence of methods. These

design categories include convergent, exploratory sequential, explanatory sequential, longitudinal mixed methods, and multiphase iterative (Leedy & Ormrod, 2019). Each approach has a specific rationale for its use and inherent strengths and weaknesses. To gain a comprehensive viewpoint of educators' approach to leadership education, an explanatory sequential design offered a robust analysis method. Explanatory sequential design starts with gathering quantitative data and uses this information to guide qualitative inquiry for deeper understanding (Creswell & Creswell, 2018; Fetters et al., 2013; Ivankova et al., 2006; McCrudden & McTigue, 2019). A pragmatic approach, the assumption is multiple perspectives are needed to fully derive knowledge around a research question (Creswell & Creswell, 2018; Fetters et al., 2013).

### **Quantitative Approaches**

The primary purpose of the quantitative portion of the study was to describe occupational therapy educators' level of andragogical teaching and determined whether any of their demographic factors predict this value. One of the simplest designs, survey methodology most often is used for descriptive purposes and solicits information from participants around a particular phenomenon with structured questions and then draws inferences using descriptive and inferential statistics (Leedy & Ormrod, 2019; Portney, 2020). Survey methodology was a valuable tool to gather this data, as it provided an economical approach to target the population with very little resources required to administer (Creswell & Creswell, 2018). Online survey methodology specifically allowed the primary investigator to disseminate materials electronically, thereby facilitating participation of programs that are not geographically nearby (Lefever et al., 2007). This format also allowed data collection to occur in real-time and when convenient for participants to complete the survey. An experimental design was not adopted as

educators are required by accreditation standards to address leadership within entry-level doctoral programs and therefore randomization was not possible. Additionally, the population was too small to effectively randomize and obtain sufficient statistical power. Data collected was cross-sectional occurred only one-time. The survey questions are presented in greater detail in the methods section and they can also be found in Appendix B and C. This information was complemented by the qualitative portion of the study.

### **Qualitative Approaches**

Phenomenological qualitative research aims to understand individual experiences and contextualize the common meaning amongst those persons to describe the *universal essence* of the phenomenon (Creswell & Poth, 2018). For this study, the primary investigator sought to understand the perceptions of occupational therapy educators on the use of andragogical principles for leadership development. Using a hermeneutical phenomenological approach was necessary in this study, as this approach allowed the primary investigator to embed assumptions and biases in an explicit manner (Laverty, 2003). When investigating the lived experiences of occupational therapy educators using andragogy, the primary investigator acknowledged the assumption that andragogical teaching is integral to leadership education.

To obtain the perspectives of the educators, the primary investigator used phenomenological interviews. Bevan (2014) outlines a structure that is important to undertake when doing phenomenological interviews ensuring that a primary investigator includes contextualization, apprehends the phenomenon, and clarifies the phenomenon. While intended typically for traditional phenomenological research, this approach may be helpful even with a hermeneutical approach. Within these interviews, the primary investigator also used an Appreciative Inquiry lens. Appreciative Inquiry “empowers stakeholders to leverage individual

and collective strengths, assets and successful past experiences within an organisation in order to design and carry out an action plan that maximises the potential at both the individual and the organizational levels” (He & Oxendine, 2019, p.221). This approach highlighted educator and institutional strengths that supported andragogical facilitation and moved outcomes towards developing a leadership education framework.

### **Mixed Methods and Integration**

Within explanatory sequential designs, integration is an important component that differentiates true mixed methods from other approaches. Teddlie and Tashakkori (2009) called mixed-method studies that lack this integration component, *quasi-mixed* and these studies usually describe the qualitative and quantitative as separate entities. Integration and consequently mixed methods serve as a method of triangulation, reducing researcher bias, neutralizing quantitative and qualitative design weaknesses, and thereby increasing the credibility of the data (Creswell & Creswell, 2018; Leedy & Ormrod, 2019; Portney, 2020). Before the study, researchers can decide how to integrate data through pointed research questions (Ivankova et al., 2008; McCrudden & McTigue, 2019). Integration occurred in several points of the research study. Fetters et al. (2013) provided a framework that offers three levels for integration. The first can occur when a researcher is designing the sequence of data collection, opting to start with quantitative or qualitative or doing both simultaneously. Next, a researcher can decide if data from the first phase will be linked to or shape the transition to the next phase. Finally, integration can occur through how the researcher discusses and interprets the data collectively. Being intentional and transparent in this approach can help limit bias in manipulating outcomes. For this proposed study, the primary investigator used a mixed-methods research question in addition to quantitative and qualitative questions and connected the quantitative analysis with qualitative



interview questions (Table 3.1). Integration at the end of data collection moved toward a *grounded action* approach, identifying common thematic factors that informed a framework on leadership education. While originally intended to extend grounded theory, grounded action can operationalize findings to transform a problem (Simmons & Gregory, 2003). Grounded action promotes integration at the highest level, starting with a concrete quantitative data collection phase, moving through to the iterative qualitative phase using the appreciative inquiry lens to provide tangible and pragmatic recommendations for the future. Ivankova et al. (2008) suggested creating a visual model to outline and communicate the mixed-methods procedures for relevant stakeholders. See Appendix B for a visual model for the overall study and which the primary investigator described in further detail below.

**Table 3.1**

*Explanatory Sequential Design Research Questions*

<b>Overarching Research Question:</b> How do entry-level doctoral occupational therapy educators approach teaching leadership and to what degree do they use andragogical principles?	
<b>Methodology</b>	<b>Research Question</b>
<b>Quantitative</b>	Descriptive: What level of andragogical teaching do occupational therapy educators use to teach entry-level doctoral leadership accreditation standards? Explanatory: What factors influence andragogical teaching in occupational therapy educators teaching leadership?
<b>Qualitative</b>	What are the perceptions of occupational therapy educators on the use of andragogical principles for leadership development?
<b>Mixed Methods</b>	What are the central andragogical teaching themes that can be used as a framework for entry-level doctoral occupational therapy leadership education?

## Strengths and Challenges of the Design

### Strengths

Explanatory sequential designs have many strengths that make them a valuable research tool. It is a straightforward process, providing a clear structure for researchers to follow (Ivankova et al., 2008; McCrudden & McTigue, 2019). Quantitative data is static; qualitative methods can transform and illuminate a more dynamic perspective, thus offering *complementarity* (Leedy & Ormrod, 2019; Tariq & Woodman, 2013). Pairing qualitative phenomenological interviews with survey data in this proposed study shed light on nuanced educator characteristics that play a role in andragogical teaching. According to Ivankova et al. (2008), researchers can give priority to one method over another but does not have to be decided until later in the research process. This was helpful by offering the primary investigator in this study flexibility in determining which approach, quantitative or qualitative, provided more meaningful data. This primary investigator anticipated a greater emphasis on qualitative data, as it provided more depth around educators' use of andragogy in occupational therapy leadership education.

Using interviews may also reduce the likelihood of the Hawthorne effect, which could occur if educators describe their teaching strategies more favorably on the MIPI than what is true (Portney, 2020). People are less likely to embellish when face-to-face (in-person or via Zoom) with an interviewer (Thacker, 2016). Another benefit to explanatory sequential design is that the data analysis was completed in two phases, allowing researchers time to reflect on quantitative data and make inferences to develop informed follow-up questions (Ivankova et al., 2008). Along with the positives, researchers must also prepare for the drawbacks of this approach.

## Challenges

Explanatory sequential design is not without challenges. It is important to explore potential barriers and develop strategies to successfully execute this design. Deciding which approach in which to give priority can be difficult for researchers to determine. As discussed, this is more a strength than challenge, as researchers can wait until after the second data analysis phase to decide. Researchers can also choose to give equal weight to both methods if that is indicated (Ivankova et al., 2008). One main disadvantage of sequential designs is the lengthy amount of time required to implement the study; Liem (2018) proposed an interview schedule guide that can assist researchers in timely completion of the qualitative portion.

Recruitment can be a challenge in mixed methods designs. The primary investigator had concerns about the sufficient recruitment of subjects who are willing to participate in both parts of the research study. Contextualizing the study aimed to create buy-in from this population with a vested interest in the outcome. The primary investigator used an aggressive recruitment campaign by reaching out to individual entry-level doctoral occupational therapy program directors and using professional platforms such as CommunOT and the OT Research and Products Facebook group. Institutional review boards (IRB) can also be reluctant to approve a proposal without first evaluating interview questions (Leedy & Ormrod, 2019). This primary investigator clearly outlined the research plan and provided preliminary questions based on the MIPI, which were then adjusted based on the responses of the educators. The primary investigator gained consent for both aspects of the study during the first phase so that participants are aware of the full scope of the study.

## Specific Procedures

For this research study, the primary investigator recruited educators who taught leadership within entry-level doctoral occupational therapy programs to participate in an online quantitative survey and subsequent qualitative interviews. The primary investigator sent a recruitment email to program directors of entry-level doctoral programs requesting they share the study information with faculty who teach leadership within their department. An important point to clarify, the primary investigator had previously considered requesting the input of educators whose content covered specifically B.5.0 and B.7.0 leadership-based accreditation standards. Upon further reflection, it was edifying to understand which accreditation standards occupational therapy programs felt addressed the concepts of leadership. Therefore, the program director selected the faculty who taught leadership as to their interpretation of the topic. It is important to note, that leadership education was not inclusive of the doctoral capstone project or experience, as the focus was on the didactic coursework that leads up to these culminating points in the doctoral program. The recruitment email contained all necessary information about the study procedures and included a hyperlink to a Qualtrics survey.

The first page of the survey served as consent and by proceeding to the next page the participants agreed to participate in the study. Due to the mixed method design, consent was for both participation in the survey and also served as permission for the primary investigator to contact the participant for a follow-up interview. After the consent was obtained, the primary investigator initiated the quantitative portion of the study, which consisted of the demographic survey and the *Modified Instructional Perspectives Inventory* (MIPI). The demographics survey solicited years of teaching experience, leadership experience, educational background, and questions regarding title of the course and accreditation standards addressed when teaching

“leadership”. See Appendix C for a complete list of questions. The MIPI, a tool that aimed to measure the use of andragogical principles in teaching, is described in greater detail in the instruments section (Henschke, 2016). The full questionnaire can be found in Appendix D.

Integration can occur at the methods level with data from the quantitative portion used to connect concepts to the qualitative approach (Fetters, et al., 2013; McCrudden & McTigue, 2019). For this study, the primary investigator selected individuals who agreed to participate for a follow-up phenomenological qualitative interview. These interviews aimed to clarify occupational therapy educators’ perspectives on their andragogical teaching approach to leadership education. The primary investigator derived interview questions from key findings from the quantitative data. See Appendix E for the interview questions. One of the important aspects of explanatory sequential design is that this method often uses the qualitative portion to highlight cultural relevance (Creswell & Creswell, 2018). While the interviews at this juncture were not explicitly ethnographic in nature, the primary investigator considered the occupational therapy lens these educators brought to their instructional technique. After data analysis of the qualitative data, additional integration occurred through the identification of the central andragogical themes that emerged from both types of data to inform a framework on leadership development.

## **Subjects**

### **Power and Sample Size**

By nature, this study was primarily descriptive and sought to identify the level of andragogical teaching within occupational therapy education. However, the results of the demographic data in relationship to the MIPI scores provided important information regarding whether there were predictive variables to andragogical teaching. When using multiple

regression to analyze data, an appropriate sample size is necessary for statistical power (Portney, 2020). Due to the small population of occupational therapy entry-level doctoral programs (n=121), the required number of participants to achieve 80% power was challenged. A G\*Power analysis indicated at least 100 participants were required to have a medium effect size (Faul et al., 2009). Other authors indicated that 10-15 participants per independent variable yields sufficient power (Babyak, 2004; Portney, 2020). With six to seven independent variables in this study, this required 60-70 participants. This number was more realistic, however, required a large percentage of participation from each school or multiple educators at most institutions completing the survey. To add to the discussion, survey response rates are typically around 30%. This is concerning considering the number of participants needed for phenomenological qualitative study recruitment is usually around 15 participants, although interviews can be done with as few as five participants (Creswell & Poth, 2018; Leedy & Ormrod, 2019). With a small population, use of supporting qualitative methods offered complementarity of the data helping to mitigate concerns with a small sample.

For both the quantitative and qualitative methods, purposeful sampling was necessary to target the appropriate population. Purposive sampling is a form of nonprobability sampling where a researcher intentionally selects a sample of persons who represent the characteristics of the target population (Leedy & Ormrod, 2019; Portney, 2020). Again, due to the small number of entry-level doctoral programs (n= 121) and occupational therapy educators teaching leadership, Leedy and Ormrod (2019) suggested there is minimal need to sample and recruitment should include all persons within the population.

## **Inclusion Criteria**

Inclusion for this study focused specifically on occupational therapy educators who taught leadership in entry-level doctoral programs. Entry-level occupational therapy programs offer dual entry-points to the profession through either a master's degree or doctoral degree. In recent years, there has been a push for occupational therapy education to move to a single-entry point at the doctoral level (Case-Smith et al., 2014; Brown et al., 2015a; Brown et al., 2015b). While the debate continues in the profession, trends in accreditation show an increasing number of doctoral programs submitting applications and seeking candidacy and master's programs transitioning to the doctorate (Ozelie et al., 2020). Educators from doctoral programs were also targeted for inclusion as the accreditation standards at the doctoral level are more explicit about leadership. In comparing the doctoral and master's accreditation standards, the term *leadership* is used five times more in doctoral standards ( $n = 7$ ) and the curriculum is required to provide "preparation and application of in-depth knowledge" with leadership being one area of focus (ACOTE, 2018, p. 19). Educators included those who work full-time in academia or adjunct faculty, as either was involved in course planning and delivery.

## **Exclusion Criteria**

Educators only teaching leadership before the implementation of the 2018 Accreditation Council for Occupational Therapy Education (ACOTE®) standards were excluded from the study. The 2018 accreditation standards became effective July 31, 2020, and are the foundational content guiding this study. Therefore, educators teaching under previous standards may not have the same leadership focus as required by current standards. Additionally, the survey asked educators to identify what accreditation standards their "leadership" education addressed and was necessary to have a consistent measure of this perspective.

## **Recruiting Procedures**

The primary investigator recruited subjects using information found on the Accreditation Council for Occupational Therapy Education (ACOTE) website. This website provided a school directory that is available to the public and listed all currently accredited doctoral programs along with the school's contact information. Using the published websites, the primary investigator identified the occupational therapy doctorate program director and sent them a personalized recruitment email to share with faculty who taught leadership as identified by the program. At the time of this study, there were 121 programs, however, the primary investigator monitored the website for newly added programs throughout the recruitment phase of the study. The primary investigator also used social media to recruit subjects by providing a hyperlink to the study within a group on Facebook specifically for occupational therapy research studies and product placement as well as the profession's national association networking site, *CommunOT*.

## **Formats for Presenting Results**

To provide a benefit to the educators, the primary investigator provided information related to the outcome of the MIPI assessment if the educator consented to be contacted after the study. A question on the Qualtrics survey asked if participants wished to receive the score of their completed MIPI with their factor related sub-scores and the factor descriptors as provided by Henschke (2016). This information was provided via a PDF attachment to the email address provided by the educator when completing the survey demographic data. Upon completion of the qualitative portion, the participants were offered to receive a portion of the results as a form of member checking and triangulation of the themes coded from the data (Creswell & Poth, 2018). The primary investigator discussed with the interview participants the format in which they wished to receive this information, whether email or an additional Zoom meeting was preferred.



## **Resource Requirement**

Due to the virtual context, limited resources were needed to conduct the study. As a faculty member and student of higher-education institution, the primary investigator had access to a multitude of software and web-based platforms in which to carryout procedures and store data. This included Qualtrics, Zoom, SPSS Statistical software, G\*Power, Microsoft 360, and OneDrive with encryption capabilities. Additionally, a computer equipped with a camera and microphone enabled virtual interviews.

## **Reliability and Validity**

By nature of the design, mixed methods research helped strengthen the rigor of the study, however there were still considerations to establish reliability and validity. Credibility is an important component within mixed methods design and a researcher must communicate the efficacy the study procedures (Leedy & Ormrod, 2019). O’Cathain et al. (2008) provided a valuable tool that served as guide to effective mixed-methods design and the primary investigator used this as a checklist to support reliability and validity. To enhance credibility, triangulation occurred through the mixed methods approach, collecting quantitative and qualitative data on the andragogical teaching of occupational therapy educators. Through this process, the research aimed to provide *thick description* (Leedy & Ormrod, 2019; Creswell & Poth, 2018) elaborating on survey data with the lived experiences of the educators as described through their viewpoint. Generalizability of the results was strengthened in that all the population received the invitation to participate in the research (Leedy & Ormrod, 2019). Hermeneutic phenomenology is subject to criticism when considering reliability and validity, however using reflexivity helped mitigate this issue (Laverly, 2003). Validity and reliability of the MIPI are discussed in the *Instruments and Measures* section of the methods.

## **Timeline**

See Appendix B for study progression and timeline for data collection and analysis. Proposal defense and IRB submission occurred in early fall with IRB approval obtained in October of 2021. Dissertation defense was planned for December of 2022.

## **Ethical Considerations and Review**

It was important to adhere to ethical practices as a researcher and therefore various procedures were in place to assure confidentiality, protection from harm, informed consent, and transparency with procedures. First and foremost, the data collection phase did not begin until the primary investigator received approval from the Institutional Review Board (IRB) at University of South Dakota. In addition, participants in the study were provided consent before any data collection took place. As previously stated, consent also included permission for the primary investigator to contact the participant for the qualitative phase of the study. Due to the nature of the study, the data cannot be completely de-identified because the primary investigator targeted educators who agreed to be contacted for the follow-up qualitative interview. When reporting data from the study, the primary investigator informed participants that no identifying information will appear in any manuscripts or publication documents to ensure and maintain confidentiality. The primary investigator provided participants with information regarding the nature of their participation and clearly communicated that they had the right to withdraw from the study at any time. Risks involved in participating in this study were not greater than the normal risks of day-to-day living (Leedy & Ormrod, 2019; Hissong et al., 2015). Part of the study included sharing the results with the participants to promote transparency and reciprocity (Creswell & Poth, 2018). Participants may have benefited from understanding more about their approach to teaching leadership and gained valuable perspectives. Conversely, this could have

caused a small amount of psychological discomfort if the results were unanticipated, however there were no reports of this occurring. If this did occur during the study, the participants would have been directed to their campus supports, such as the counseling center, for follow up.

### **Funding**

This study was unfunded, and the primary investigator subsidized any costs related to carrying out the procedures for this research.

### **Study Setting**

There was no physical setting for this study, however the procedures took place within the virtual context of higher education. Interview participants interacted with the primary investigator through email, the Qualtrics survey platform, the Zoom web-based meeting platform, and in one instance over the phone.

### **Instruments and Measures**

As stated previously, the quantitative portion of the study asked educators to complete the *Modified Instructional Perspectives Inventory* (MIPI), a tool that aims to measure the use of andragogical principles in teaching (Henschke, 2016). Due to the relatively new emergence of andragogy as a theoretical framework, there were limited assessment tools to capture data around this concept (Rachal, 2002; Taylor & Kroth, 2009). Initially developed in 1989 by John Henschke, the MIPI has undergone several iterations to its current version and was designed to assess instructors' perceptions of andragogical teaching using a self-scoring self-assessment 45-item Likert scale (Henschke, 2016; Young et al., 2020). A review of the available literature revealed that most psychometric testing and use of the MIPI were primarily found in unpublished dissertations. Young et al. (2020) reported from their review of the literature that the MIPI has strong "internal consistency reliability, convergent validity on multiple factors, evidence of

concurrent validity and predictive validity” (p. 3). This assessment tool was versatile in its use; Young et al., (2020) used this assessment for coaching and Giuseffi (2019) used the MIPI with students. According to Henshke (2011), the MIPI “was validated as an almost perfect ‘bell-shaped’ measurement of an andragogical facilitator” (p. 34). The demographic data sheet was designed by this primary investigator for this study.

### **Data Collection Procedures**

Data collection occurred in an organized and secure format to ensure ethical practices. Once educators clicked on and completed the survey link, the data populated in a password-protected Qualtrics database and web platform. The primary investigator then downloaded the results from the consent form, demographic questionnaire and MIPI in an excel file which was stored in an encrypted folder on her password protected computer. The primary investigator then deidentified each participant in the excel file by assigning them a number and created a corresponding code sheet which she stored in a separate file in the encrypted folder. Data could not be fully de-identified, as the primary investigator needed to identify and select participants who agreed for qualitative follow-up and asked for the results of the MIPI be shared. The primary investigator input the deidentified excel file into SPSS for the data analysis phase.

During the qualitative phase, participants consented to being audio and video recorded during the Zoom interview. Zoom recordings automatically downloaded onto the primary investigator’s password protected computer and these recordings were immediately transferred to the encrypted secure file for storage. The primary investigator used Otter.ai transcription services to transcribe the interviews. Transcribed interviews were stored on the primary investigator’s password protected computer in the encrypted study folder. The primary investigator assigned a

code to the transcription that matched the participant's quantitative code and then hand-coded the data in Microsoft Word.

### **Data Analyses**

Data analysis occurred in three phases: quantitative analysis, qualitative coding, and integration thematic analysis. Using SPSS, the primary investigator analyzed data from the demographic survey and MIPI by running descriptive statistics for frequency distributions and measures of central tendency (Portney, 2020). In addition to describing the characteristics of the data, the primary investigator also analyzed whether there were any relationships amongst the demographic data (independent variables) and the MIPI scores of andragogical teaching (dependent variable). To do this, the primary investigator used a multiple regression analysis. This type of statistical analysis allowed the primary investigator to examine multiple variables, continuous and categorical, to explain variance in the dependent continuous variable (Portney, 2020). This permitted the primary investigator to see if there are any relationships around years of experience, leadership experiences, and degree obtained in the level of andragogical teaching. The primary investigator also chose to run a correlation analysis to describe any relationships between the independent variables.

Qualitative data analysis and coding followed an adapted method of Moustakas as presented in Creswell and Poth (2018). In this approach, the primary investigator identified significant statements within the narrative information collected from the participants and then further grouped these statements into themes. Creswell and Poth (2018) then suggested when using Moustakas' method to describe the "what" and the "how" related to the experiences of the participants using the themes and verbatim quotations (p. 201) The qualitative data analysis process occurred with Microsoft word, using tables to organize and store the qualitative raw data,

coding, and thematic descriptions. Reflexivity during this process was important and even though this study used a hermeneutical phenomenological approach, these bias and assumptions were accounted for. Researchers must possess a sense of self-awareness and “being reflexive engenders attending to participant experiences in the context of their daily lives, and building relationships based on mutual respect and shared information in the health research process” (Townsend et al., 2010, p. 616). Through this process the primary investigator developed a qualitative codebook, which provided a list of codes and a definition around that code (Creswell & Creswell, 2018). This codebook aided in the process of integration and creation of the leadership development framework.

Integrative data analysis focused on consistent themes amongst data from the quantitative and qualitative analysis. The primary investigator analyzed high frequency items from the MIPI and identified codes from qualitative data that correspond to the concepts. These main themes highlighted characteristics of andragogical teaching in occupational therapy education and informed a framework on leadership education. Fetters et al. (2013) described this process as the *weaving approach* within *integration through narrative*, where “researchers describe the qualitative and quantitative findings in a single or series of reports” (p. 2142). Additionally, the framework shed light on the supportive factors of leadership development.

### **Anticipated Limitations and Delimitations**

With any study, there were inherent delimitations and limitations. For this study, the primary delimitation was that the population was narrowed to that of the occupational therapy entry-level doctorate. As of September 2022, there were a greater number of accredited entry-level master’s programs (n= 168) than doctorate (n= 71) in occupational therapy (ACOTE, 2022). This presents a limitation by not capturing educators’ perspectives who teach in these

master's programs. However, this number is rapidly shifting with 36 programs transitioning to the doctorate, which will result in a greater number of accredited doctoral programs within the next few years. There are an even greater number of doctoral programs (n=72) that are in the candidacy or preaccreditation phase as compared to the master's (n=13). The primary investigator's decision to include only the doctoral-level educators was made to reflect the likely progression of the profession to one-entry point (at the doctoral level) based on accreditation trends and discussions within the profession (Case-Smith et al., 2014; Brown et al., 2015a; Brown et al., 2015b). Using data from entry-level doctoral programs also led to the focus on only one set of accreditation standards, as there are variations in standards and language that differentiate each entry-level degree in occupational therapy.

Limitations to the study were also present with potential threats to validity and reliability. Internal validity may have been compromised by educators wanting to appear more adept at using andragogical principles in their classroom by scoring themselves higher on the MIPI. This could also impact external validity with the primary investigator as a peer in the profession and therefore contributing to a form of researcher bias or *reactivity* (Leedy & Ormrod, 2019). With non-probability, purposive sampling, Portney (2020) warned there can be challenges with generalization. By recruiting all members of the population, this hopefully mitigated this as an issue. However, participants who agreed to participate may have represented a portion of the population who were more engaged as educators and not truly reflective of the total population. Representative sampling challenges appear to be a consistent issue with generalization in online survey methodology (Lefever et al., 2007). With the research design using an appreciative inquiry lens, this limitation may not be a significant factor.

## **Summary of the Chapter**

After considering the procedure for explanatory sequential research, it is clear this was an effective approach to investigating occupational therapy educators' use of andragogical principles in entry-level doctoral leadership education. The strengths of the design offered a robust view of the phenomenon while also mitigating weaknesses and threats to reliability and validity.

Soliciting the perspectives of all members of the population aimed to capture multiple and well-rounded viewpoints. Through careful and ethical integration of the data collected, the primary investigator developed a framework that will help guide andragogical teaching in occupational therapy leadership education and advocated for changing future accreditation standards to better meet the needs of leadership development.



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## Appendix A

### Definition of Terms and Variables

Variable	Definition	Characteristic	Measurement Tool
<b>Andragogy</b>	Andragogy is the art and science of adult learning. Six principles highlight the unique needs and considerations of adult learners: Learners need to know, self-concept of the learner, prior experience of the learner, readiness to learn, orientation to learning, and motivation to learn (Knowles et al., 2019).	<ul style="list-style-type: none"> <li>• Dependent Variable</li> <li>• Continuous</li> </ul>	Modified Instructional Perspectives Inventory (MIPI) (Henschke, 2011)
<b>Leadership</b>	“Leadership is a process of creating structural change wherein the values, vision, and ethics of individuals are integrated into the culture of a community as a means of achieving sustainable change” (Braveman, 2022, p. 6).	Phenomenological perspective from OT educators	Qualitative interviews
<b>Post-Professional Doctorate</b>	“Postprofessional clinical doctorate students are occupational therapists who have previously completed an entry-level occupational therapy degree and also in consideration of the amount of clinical practice experience applicants possess. Unlike entry-level clinical doctorate programs, postprofessional clinical doctorate degrees are not currently accredited by ACOTE.” (American Occupational Therapy Association, 2016, p. 5)	<ul style="list-style-type: none"> <li>• Independent Variable</li> <li>• Binomial</li> </ul>	Demographic Survey
<b>Occupational Therapy Educators Earned Degree</b>	Faculty qualifications in occupational therapy education require that educators have “academic and experiential qualifications that are necessary to meet program objectives and the mission of the institution” (ACOTE, 2018, p. 8). Full-time core faculty in entry-level doctoral programs “must hold a doctoral degree” and 50% of full-time faculty must have a post-professional	<ul style="list-style-type: none"> <li>• Independent Variable</li> <li>• Categorical</li> </ul>	Demographic Survey



	<p>doctorate (ACOTE, 2018, p. 11). The demographic survey will ask the occupational therapy educator to identify their highest level earned degree with the choices listed below:</p> <ul style="list-style-type: none"> <li>• OTD</li> <li>• PhD</li> <li>• EdD</li> <li>• Other _____</li> </ul> <p>An additional question will solicit in what year the terminal degree was earned.</p>		
<b>Accreditation Standards</b>	<p>“The dynamic nature of contemporary health and human services delivery systems provides opportunities for the occupational therapist to possess the necessary knowledge and skills as a direct care provider, consultant, educator, manager, leader, researcher, and advocate for the profession and the consumer.” (ACOTE, 2018, p. 1). The Accreditation Council for Occupational Therapy Education requires occupational therapy entry-level doctoral degree graduates and programs to meet minimal compliance in 131 standards.</p>	<ul style="list-style-type: none"> <li>• Independent Variable</li> <li>• Categorical</li> </ul>	<p>2018 Accreditation Council for Occupational Therapy Education (ACOTE®) standards and interpretive guide (ACOTE, 2018) via the Demographic Survey</p>
<b>Years of Experience in Academia</b>	<p>This study will ask occupational therapy educators to identify the number of years in which they recognize “academia” to be their primary area of practice.</p>	<ul style="list-style-type: none"> <li>• Independent Variable</li> <li>• Continuous</li> </ul>	<p>Demographic Survey</p>
<b>Years of Experience as an Occupational Therapist</b>	<p>This study will ask occupational therapy educators to identify the number of years in which they recognize “occupational therapist” to be their primary area of practice.</p>	<ul style="list-style-type: none"> <li>• Independent Variable</li> <li>• Continuous</li> </ul>	<p>Demographic Survey</p>
<b>Gender</b>	<p>“Gender refers to the characteristics of women, men, girls, and boys that are socially constructed. This includes norms, behaviours and roles associated with being a woman, man, girl or boy, as well as relationships with each other. As a social construct, gender</p>	<ul style="list-style-type: none"> <li>• Independent Variable</li> <li>• Categorical</li> </ul>	<p>Demographic Survey</p>

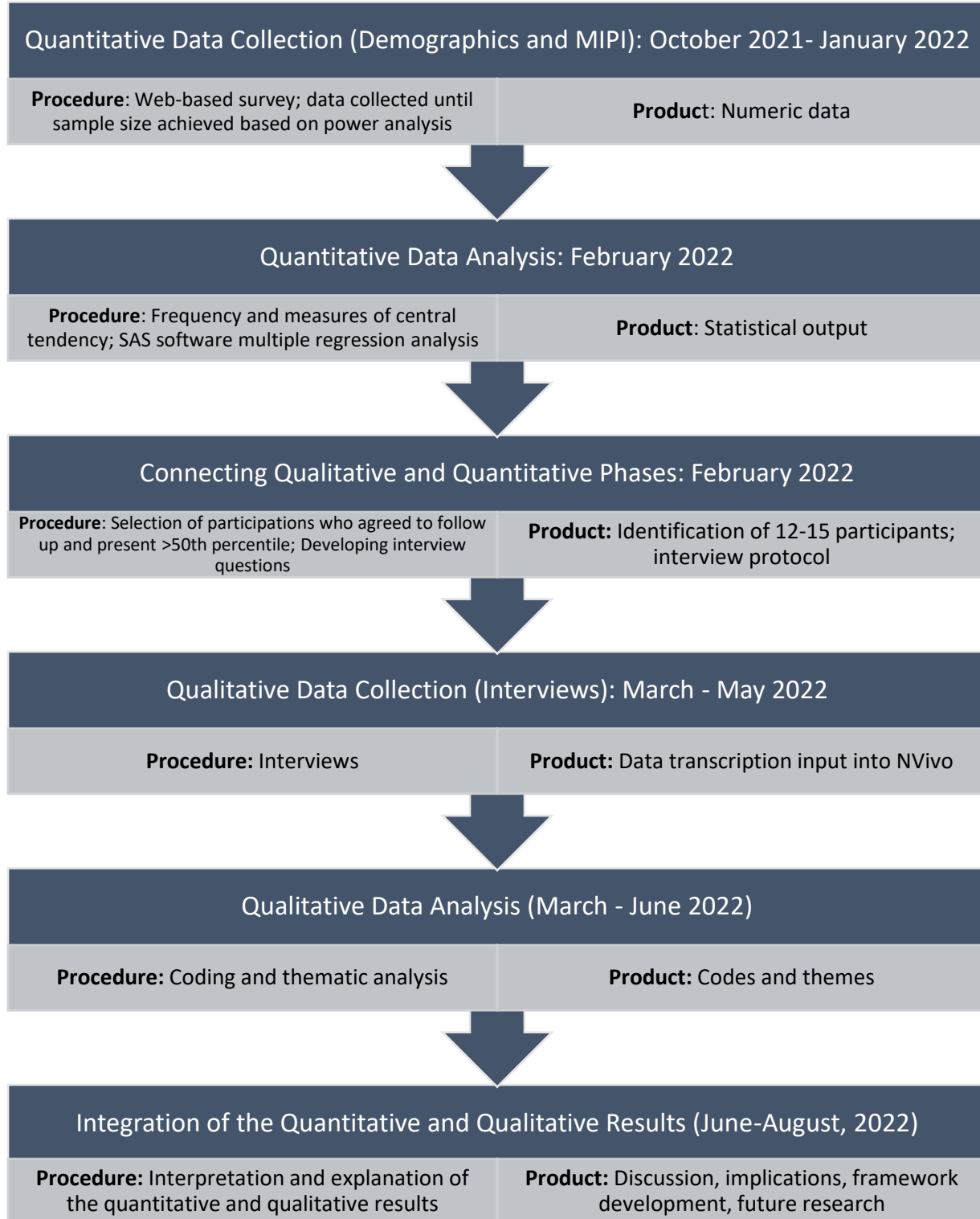
	<p>varies from society to society and can change over time.” (World Health Organization, n.d). For this study, gender consists of the following constructs:</p> <ul style="list-style-type: none"> <li>• Male</li> <li>• Female</li> <li>• Transgender female</li> <li>• Transgender male</li> <li>• Gender variant/Non-conforming</li> <li>• Prefer not to answer</li> <li>• Not listed: _____</li> </ul>		
<b>Ethnicity</b>	<p>The National Institute of Health (NIH)(2015) “defines each racial and ethnic category as follows:</p> <ul style="list-style-type: none"> <li>• <b>American Indian or Alaska Native.</b> A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.</li> <li>• <b>Asian.</b> A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.</li> <li>• <b>Black or African American.</b> A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."</li> <li>• <b>Hispanic or Latino.</b> A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term, "Spanish origin," can be used in addition to "Hispanic or Latino."</li> <li>• <b>Native Hawaiian or Other Pacific Islander.</b> A person having</li> </ul>	<ul style="list-style-type: none"> <li>• Independent Variable</li> <li>• Categorical</li> </ul>	Demographic Survey

	<p>origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.</p> <ul style="list-style-type: none"> <li>• <b>White.</b> A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.” (para. 4)</li> </ul>		
<b>Leadership Experience</b>	<p>In this study, this construct is a subjective perspective of what an occupational therapy educator considers to be leadership experiences. Implicit leadership theory emphasizes the importance of acknowledging the social constructs of leadership (Schyns et al., 2010). Educators will also be asked to articulate the number of years in which they have engaged in leadership activities.</p>	<ul style="list-style-type: none"> <li>• Independent Variable</li> <li>• Categorical and Continuous</li> </ul>	<p>Demographic Survey; Qualitative Interviews</p>

## Appendix B

### Visual Model for Mixed-Methods Explanatory Sequential Design Procedures

(Based on a model presented in Ivankova et al., 2008)



## Appendix C

### Demographic Questionnaire

1. How many years have you been an occupational therapist?
2. How many years have you been teaching in academia?
3. Describe your position in academia:
  - Full-time
  - Part-time
  - Adjunct
  - Emeritus
4. What is your terminal degree? Please select one:
  - OTD
  - PhD
  - EdD
  - Other: \_\_\_\_\_
5. In what year did you earn this degree?
6. Do you have a post-professional doctoral degree? Yes or No
7. How many years of leadership experience do you have?
8. Please provide some examples of your leadership positions, roles, or experiences.
9. What accreditation standards do you address in your leadership course?
10. What is/are the course title(s) in which you address leadership? List as many as you teach.
11. Do you teach leadership and management in the same course? Yes or No
12. How do you assess leadership?
13. In what region of the United States do you teach occupational therapy?
  - Northeast
  - Midwest
  - Southeast
  - Southwest
  - West
14. To which gender identity do you most identify?
  - Male
  - Female
  - Transgender female
  - Transgender male
  - Gender variant/Non-conforming

- Prefer not to answer
- Not listed: \_\_\_\_\_

15. How would you describe your ethnicity (select all that apply):

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic or Latino
- Native Hawaiian or Other Pacific Islander
- White

**Appendix D**

**Modified Instructional Perspectives Inventory (MIPI; Henschke, 2016)**

*See next page*

## MODIFIED INSTRUCTIONAL PERSPECTIVES INVENTORY

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Listed below are 45 statements reflecting beliefs, feelings, and behaviors beginning or seasoned teachers of adults may or may not possess at a given moment. Please indicate how frequently each statement typically applies to you as you work with adult learners.

Circle one letter (A, B, C, D, or E) opposite each item that best describes you.

How frequently do you:

Almost Never	Not Often	Sometimes	Usually	Almost Always
--------------	-----------	-----------	---------	---------------

1. Use a variety of teaching techniques?
2. Use buzz groups (learners placed in groups to discuss)
3. Believe that your primary goal is to provide learners as much information as possible?
4. Feel fully prepared to teach?
5. Have difficulty understanding learner point-of-view?
6. Expect and accept learner frustration as they grapple with problems?
7. Purposefully communicate to learners that each is uniquely important?
8. Express confidence that learners will develop the skills they need?
9. Search for or create new teaching?
10. Teach through simulations of real-life?
11. Teach exactly what and how you have planned?
12. Notice and acknowledge to learners positive changes in them?
13. Have difficulty getting your point across to learners?

A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E



**How frequently do you:**

14. Believe that learners vary in the way they acquire, process, and apply subject matter knowledge?
15. Really listen to what learners have to say?
16. Trust learners to know what their own goals, dreams, and realities are like?
17. Encourage learners to solicit assistance from other learners?
18. Feel impatient with learner's progress?
19. Balance your efforts between learner content acquisition and motivation?
20. Try to make your presentations clear enough to forestall all learner questions?
21. Conduct group discussions?
22. Establish instructional objectives?
23. Use a variety of instructional media? (internet, distance, interactive video, videos, etc.)
24. Use listening teams (learners grouped together to listen for a specific purpose) during lectures?
25. Believe that your teaching skills are as refined as they can be?
26. Express appreciation to learners who actively participate?
27. Experience frustration with learner apathy?
28. Prize the learner's ability to learn what is needed?
29. Feel learners need to be aware of and communicate their thoughts and feelings?
30. Enable learners to evaluate their own progress in learning?

Almost Never	Not Often	Sometimes	Usually	Almost Always
--------------	-----------	-----------	---------	---------------

A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E

How frequently do you:

31. Hear what learners indicate their learning needs are?	A	B	C	D	E
32. Have difficulty with the amount of time learners need to grasp various concepts?	A	B	C	D	E
33. Promote positive self-esteem in the learners?	A	B	C	D	E
34. Require learners to follow the precise learning experiences you provide them?	A	B	C	D	E
35. Conduct role plays?	A	B	C	D	E
36. Get bored with the many questions learners ask?	A	B	C	D	E
37. Individualize the pace of learning for each learner?	A	B	C	D	E
38. Help learners explore their own abilities?	A	B	C	D	E
39. Engage learners in clarifying their own aspirations?	A	B	C	D	E
40. Ask the learners how they would approach a learning task?	A	B	C	D	E
41. Feel irritation at learner inattentiveness in the learning setting?	A	B	C	D	E
42. Integrate learning techniques with subject matter content?	A	B	C	D	E
43. Develop supportive relationships with your learners?	A	B	C	D	E
44. Experience unconditional positive regard for your learners?	A	B	C	D	E
45. Respect the dignity and integrity of the learners?	A	B	C	D	E

## Appendix E

### Qualitative Interview Questions

\*\* The qualitative interview questions are based on high scoring factors on the *Modified Instructional Perspectives Inventory* (MIPI; Henschke, 2016). All scores were 4.5 and above.

#### Overall Questions:

1. What is your understanding and/or perception of the adult learning theory of andragogy? **(If participants are not familiar with the term *andragogy*, the primary investigator will provide a brief definition and state, “Andragogy, the study of adult learning, provides a lens that considers the unique experiences and motivations adult learners bring to their educational context (Jeanes, 2021; Knowles et al., 2020; McCauley et al., 2017). Six principles highlight the unique needs and considerations of adult learners: Learners need to know, self-concept of the learner, prior experience of the learner, readiness to learn, orientation to learning, and motivation to learn (Knowles et al., 2019).)**
2. What are some of the challenges you face when using an andragogical approach to teach leadership and how do you overcome these factors?
3. In what ways do you model leadership for your students?
4. What leadership theories do you most often teach or use? Why?  
**(If participants are unfamiliar with leadership theories, several examples will be provided, such as trait theory, servant leadership theory, transformational and transactional leadership theory, and authentic leadership theory).**
5. Is there anything else that you think is important to share about leadership development in occupational therapy? *(Last Question)*

#### Questions Based on the MIPI (with associated scores):

**(if questions arise around the MIPI questions, the investigator will remind the participant that they should answer based how they perceive the question.)**

6. In what ways do you “respect the dignity and integrity of the learners”?
  - a. Question 45 - 4.91
7. How do you “express confidence that learners will develop the skills they need” in leadership?
  - a. Question 8 – 4.82
8. What strategies do you use to “establish [leadership] instructional objectives”?
  - a. Question 22 – 4.76
9. Tell me about the “variety of teaching techniques” you use to teach leadership. What types of instructional media do you use?
  - a. Question 1 – 4.73
  - b. Question 23 – 4.64
10. In what ways do you “believe that learners vary in the way they acquire, process, and apply subject matter knowledge”?
  - a. Question 14 – 4.71
11. Some educators get “bored with the many questions learners ask”. What is your perspective on this?
  - a. Question 36 – 4.70
12. How do you “really listen to what learners have to say”?
  - a. Question 15 – 4.55
13. In what ways do you “encourage learners to solicit assistance from other learners”?
  - a. Question 17 – 4.55
14. How do you “develop supportive relationships with your learners”?
  - a. Question 43 – 4.52

## **Chapter 4: Three-Article Dissertation Manuscripts**

### **Manuscript 1 Developing Leaders of the Profession:**

#### **A Concept Analysis of Occupational Therapy Literature**

##### **Background**

Healthcare and society are in a time of rapid change and evolution and occupational therapy practitioners need a leadership mindset to meet this challenge. Hinojosa (2007) emphasized the need for strong leadership so that practitioners are prepared for an era of *hyperchange*. The call for leadership has been a central theme in occupational therapy over the last 100 years. Several past-presidential addresses, prestigious lectureships, and solicited opinion papers focused on the topic of leadership and the need to foster future leaders (Case-Smith et al., 2014; Hinojosa, 2007; Moyers, 2007; Stoffel, 2013). In occupational therapy, leadership development is seen as a fundamental skill and social process needed to advance the profession.

Leadership and leadership development are intrinsically linked. As a consequence, it is first necessary to provide context and a lens through which to understand how occupational therapy as a profession views leadership. Leadership is a complex construct and not consistently defined in the occupational therapy literature. Copolillo et al. (2010) identified leadership as a mix of skills and knowledge, enacted within the constraints of context. Liotta-Kleinfeld (2018) noted leadership to be a “trait, skill, and attitude” (p. 3). Former American Occupational Therapy Association (AOTA) president, Virginia Stoffel, defined leadership as a “process of influence” and that the profession needs heartfelt leaders, who can intuit the needs of others, establish relationships, and act with compassion (Stoffel, 2013, p. 634). Dunbar-Smalley (2022) provided a more comprehensive view, defining leadership as “a process that involves a

significant degree of complexity through interactive and relational operations in order to meet the goals of individuals or groups” (p. 5). For the purposes of this article, Braveman’s (2022) definition of leadership offered the most robust perspective on leadership: “a process of creating structural change wherein the values, vision, and ethics of individuals are integrated into the culture of a community as a means of achieving sustainable change.” (p.4). And while definitions of leadership are defined in occupational therapy, the concept of leadership development has even greater ambiguity. Leadership development is a topic well-known and studied in the business and management sphere, however, in occupational therapy, the topic is somewhat vague.

There are some attempts by authors and theorists to propose models that relate to leadership development. The Leadership in Enabling Occupation (LEO) model articulated the interrelated features of scholarship, accountability, funding, and workforce planning in optimal leadership within the occupational therapy lens and supports the importance of building leadership capacity (Lapointe et al. 2013; Townsend et al., 2011). Moyers (2007) proposed a cyclical model grounded in core leadership theory and suggested developing occupational therapy leaders by “endorsing the vision, challenging the process, taking action, and building community and collective identity” (p. 624). Moyers emphasized the importance of building leadership capacity within both occupational therapy education and practice.

There is a notable gap that emerges when considering leadership development in occupational therapy practice and even more so from an entry-level educational viewpoint. Little is said about leadership development within the guidelines and requirements for the education of future occupational therapy practitioners. There is a considerable dearth of empirical evidence on leadership development. Comparing this with other health professions, this appears to be a

consistent theme, although nursing and medical education have emerging bodies of evidence (Morrow, 2015; Ross et al., 2021; Sadowski et al. 2018). This lack of evidence in occupational therapy may be linked to the current lack of a defined understanding of the concept of leadership development in the profession. Further examination of leadership development in the occupational therapy literature may provide helpful insights and strengthen the opportunity to study this concept and its efficacy.

### **Methods**

A concept analysis is useful where there is a lack of clarity or consensus around a concept that has an established literature base. Through this analysis, researchers can develop a better understanding of how to approach future research in a manner consistent with the concept (Penrod & Hupcey, 2005). Within occupational therapy, there appears to be a lack of consensus around leadership development, despite the robust literature base available on the topic within other disciplines such as business and management. This may be a contributing factor to the lack of empirical evidence available within the field, as researchers may struggle to identify the parameters of leadership development or the appropriate methodology in which to study the concept within occupational therapy.

Within the occupational therapy literature, concept analysis is still an emerging methodology and more often principles of occupational science are used to explore concepts within the field. There is still utility in doing a concept analysis within occupational therapy, as it provides holistic perspectives of a concept through examination of historical and linguistic underpinnings. When doing a concept analysis, there are several methods by which a researcher may choose to examine the topic. Three of the most common types of concept analysis are Roger's Evolutionary Concept Analysis (Rodgers & Knafl, 2000), Walker and Avant's concept

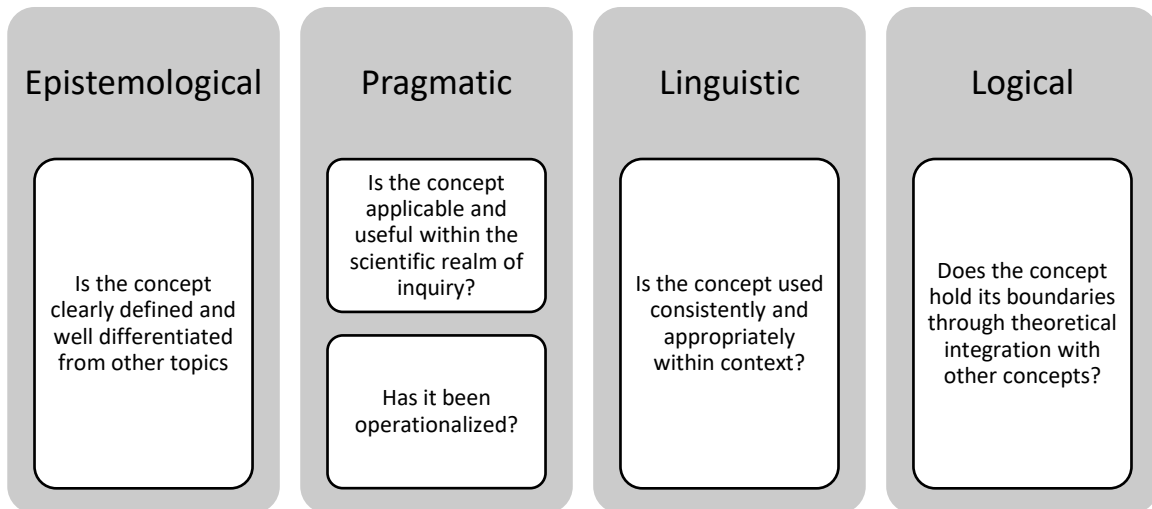
analysis (Walker & Avant, 2005), and the Principle-based Concept Analysis (Morse, 1995, Hupcey et al., 1996, Morse et al., 1996). Each offers a nuanced approach to promoting a greater depth of understanding of the subject. Walker and Avant's methods are most used in the occupational therapy literature to analyze a concept. They offer a linear and structured process and use case examples to illustrate exemplar examples. Roger's Evolutionary Concept Analysis is similar in its use of exemplary cases; however, it uses a more cyclical model. While these are both acceptable methods of concept analysis, they were not adequate to capture the dynamic aspects of leadership development through its progression in occupational therapy.

For the purposes of this article, the primary investigator chose the somewhat more complex method of principle-based concept analysis. One of the most in-depth methods, principle-based concept analyses evaluate the scientific literature or other representations to ascertain what is known about a concept (Smith & Mörelius, 2021). Using epistemological, pragmatic, linguistic, and logical principles, principle-based concept analysis examines the full range of the concept under study (Penrod & Hupcey, 2005) (Figure 4.1.1.).

**Figure 4.1.1.**

*Concept Analysis Key Terms (Penrod & Hupcey, 2005, pp. 405-406)*





Walder et al. (2021) used a principle-based concept analysis in their work because “this approach focuses on identifying gaps and inconsistencies in conceptualization; revealing the clarity of relationships with other concepts; exploring the congruence between definition, theory, and application in practice; and determining if further concept development is warranted” (p. 28). This perspective confirmed the use of the principle-based concept analysis for leadership development within occupational therapy. Through the analysis of the four principles, this approach helps to identify the strengths and limitations of the available evidence that represents the knowledge of the concept (Smith & Mörelius, 2021). Another important component of the principle-based concept analysis is the ability to capture the historical evolution of a concept. This may provide helpful insight into how leadership development has evolved over occupational therapy’s 100 years of existence. The final outcome of the principle-based concept analysis is a proposed theoretical definition that integrates the findings from the literature.

This principle-based concept analysis was conducted using the phased approach outlined by Smith and Mörelius (2021). The article search identified records within nine databases:

Academic Search Premier, CINAHL, EBSCO MegaFILE, Education Research Complete, ERIC, MEDLINE, APA PsychInfo, and PubMed. Search terms used variations of leadership development to attempt to capture the most records (Figure 4.1.2.). Papers were included if the term *leadership* appeared in the abstract or body of the record. Restrictions were placed in the disciplinary source and only articles focused on occupational therapy were included thereby excluding interprofessional articles. As an evidence-based approach, a principle-based concept-analysis typically focuses on the scientific literature, specifically peer-reviewed sources. In the case where a concept is less researched, such as leadership development in occupational therapy, inclusion of grey literature is acceptable (Smith & Mörelius, 2021). Book chapters and theses were excluded from the search as these sources are not as readily available or accessible to a wider audience. Conference abstracts were included as most were found in accessible journal publications and required some degree of peer review. Another important part of principle-based concept analysis is evaluating the historical evolution of a concept and therefore there were no limitations based on the date of the work.

### **Figure 4.1.2**

#### *Terms Used in the Database Search*

<b>Search Terms</b>
- Leadership and occupational therap*
- Leadership development and occupational therap*
- Leadership education and occupational therap*
- Leadership training and occupational therap*

The electronic database search resulted in a total of 141 articles and after screening for inclusion, 69 articles were examined for further analysis. Articles were predominately from grey literature which included sources such as *OT Practice* magazine and editorial articles in journals.

### **Findings**

Leadership development was represented throughout the occupational therapy literature as both a means and an end, using multiple expressions to describe this concept, and mostly enacting ideas from a theoretical perspective with minimal empirical viewpoints. The findings were organized by the central constructs of a concepts analysis which includes epistemological, pragmatic, linguistic, and logical considerations.

### **Epistemological Considerations**

Epistemology conveys knowledge and this part of the analysis revealed what the occupational therapy profession knows leadership development to be. The attempt is to understand and represent the shared perspectives of leadership development within the profession. Similar to the process of Walder et al. (2021), the literature was examined to determine if leadership development was framed as a process, an outcome, or both. Within those three areas, themes emerged around the discussions within the literature.

### ***Leadership Development is a Process***

When evaluating the occupational therapy literature, leadership development was most often framed as a process; a path to arrive at the destination that is leadership. Sweetman (2016) was explicit in this perspective and stated that “leadership development is a process that takes time and conscious effort”. (p. CE-3). Leadership development is also presented by Hendricks and Toth-Cohen (2018) and Hunter (2013) as a continuum; something that requires lifelong

engagement. Within this discussion of leadership development as a means, the strategies to do so varied significantly. Five predominant themes emerged: *strategies, socialization and mentorship, developing leadership in others, and leadership contexts.*

**Strategies.** Most consistent with the idea of leadership development, the occupational therapy literature offered some specific strategies that could be used to enhance skills and behaviors related to leadership. Self-reflection and building self-awareness were identified as important tools for leaders by several authors including Cruanes (2009a), Ellison et al., (2013), Hucke, B. (2007), Phipps, (2015), and Sweetman (2016). O'Brien and Hight (2016) suggested the use of e-Portfolios as means to foster reflection and develop leadership. Schwartz (2009) encouraged the profession as a whole to reflect on its history and the actions of its creators. Hendricks and Toth-Cohen (2018) proposed a novel strategy to encourage leadership development by constructing a life story. Gilfoyle (1989) offered a holistic approach and suggested that caring for oneself fosters caring leadership.

Traditional leadership development activities such as role-playing, participating in journal clubs, and leadership development exercises were presented by Phipps (2015) in a continuing education article. Cruanes (2009a) also suggested participating in leadership workshops and reading leadership articles. Zachry and Flick (2015) emphasize the importance of advancing communication skills. Davidson (2017) identified content such as professional resilience, confidence building, and conflict management as particular strategies. Burke and DePoy (1991) suggest observing others to further develop leadership skills. In alignment with the occupational therapy process, several authors encouraged the use of a leadership framework to guide decisions and actions related to leadership development (Davidson, 2012; Davidson, 2017; Hendricks & Toth-Cohen, 2018; Tempest & Dancza, 2019). Occupational therapists are

encouraged to incorporate these strategies continuously into their professional practice and not as isolated, one-time events.

**Socialization and Mentorship.** While leadership development can start with the self, findings in the literature often point to the importance of socialization in this process. Leadership is a social process and the influence and support of others are an important component of developing a broader leadership perspective (Gilfoyle, 1987; Nagel, 2014; Scott, 1985). Enculturation and socialization can happen both formally and informally. Mentorship, a formal relationship to foster growth, is specifically identified as a key activity to support leadership development in a number of sources (Baum, 2007, Burtner et al., 2009; Cruanes, 2009a, Cruanes, 2009b; Ellison et al., 2013; Dumitrescu & Sullivan, 2014; Gafni Lachter & Ruland, 2018; Rogers, 1982; Schemm & Bross, 1995). Occupational therapy practitioners are encouraged to engage in formal mentoring relationships, however, informal relationships using a peer model are also espoused as being effective by Heard et al. (2018) and Stoffel and Lamb (2014). Rogers (1982) used the term *sponsorship* to encompass the range of formal and informal relationships occupational therapy practitioners use for leadership development. The literature indicated that the occupational therapy profession values the opportunity to learn from one another and leverage relationships to promote the growth of leadership within the profession.

**Developing Leadership in Others.** Leadership development can also be a byproduct of mentoring or developing leadership in others. Reimer (2000) emphasized that “leadership starts with ourselves, then grows to include other individuals and even organizations” (p. 141). According to several authors, empowering and supporting the leadership growth of other individuals can help strengthen and cultivate the same within the individual who is doing the role modeling, mentoring, or coaching in the relationship (Alsop & Lloyd, 2002, Brachtesende, 2006;

Gilfoyle, 1989, Hankison, 2010; Reimer, 2000; Rodger, 2012). This can happen as early as during occupational therapy education and even students can experience leadership growth by mentoring others as proposed by Gafni Lachter and Ruland (2018), Nagel (2014), and Roberts et al. (2017).

**Leadership Contexts.** Several authors suggested certain contexts are more conducive to supporting leadership development processes. Reimer (2000) noted contexts that promote lifelong learning and acknowledge achievements foster leadership development. Nagel (2014) described how leadership could be developed within non-traditional, “unsuspected places” such as religious networks, social engagements, charities, educational settings, or outside associations (p. 8). Many articles discussed venues that were created with the intention to prime leadership development for those who attended or engaged in the activities arranged within that context (Figure 4.1.3.).

**Figure 4.1.3.**

*Venues for Leadership Development*

Venues for Leadership Development						
Leadership Education in Neuro-developmental and Related Disabilities (LEND) • Loukas et al. (2019)	Vancouver Leadership Forum • Baptiste, 2000	National Leadership Camp • Hendricks & Toth-Cohen, 2018	Leadership committee in workplace • Hine & Toth-Cohen, 2010	Leadership Development Program for Middle-managers • Yamakovenko & Waite, 2011	Coordinated Online Opportunities for Leadership (COOL) Database • AOTA, 2010	Emerging Leaders Development Program • Cendejas, 2016

Education was far greater represented in discussions on contexts for leadership development. For students, Mu et al. (2010) provided more details by suggesting contexts that were strong in program development, outreach initiatives, policy and advocacy opportunities, international programs, and professional organizations are all supportive of student leadership development. Fieldwork is purported as a context ripe for leadership development opportunities (Barker & Duncan, 2020; Dunbar & Winston, 2015; OT Practice, 2016). The doctoral capstone experience is also identified as an opportunity for developing students' perceptions of leadership behaviors (Recigno et al., 2020). Participation in student organizations such as the Student Occupational Therapy Association (SOTA) was noted by McDaniel and Swaringen (2021) as an opportunity to build leadership capacity. Several authors highlighted the importance of occupational therapy curricula, housed within the context of occupational therapy education, as a facilitator to foster future occupational therapy practitioners' readiness for leadership and leadership roles (Brachtesende, 2006; Copolillo et al., 2010; Musselman, 2007; Rodger, 2017).

### ***Leadership Development as an Outcome***

While there is a fairly robust discussion about leadership development processes, leadership development as an outcome is far less described in the occupational therapy literature. Leadership development in this sense is the end product and describes a state of being. The *American Journal of Occupational Therapy* (1955) first presented leadership development as a skill and as a function. Leadership development later was acknowledged as a competency by several authors (Fawcett & Strickland, 1998; Reimer, 2000; Ziegler Delahunt et al., 2018). This is further echoed by Baptiste (2000), Tempest and Dancza (2019), and Davidson (2012) whom all noted that the outcome of leadership development is leadership knowledge, skills, and behaviors. Dillon (2001) puts a different spin on the end result of leadership development and

stated that “it is the character of the leader and not the leadership characteristics” (p. 443).

Cruanes (2009b) and Sweetman (2017) both consider leadership development to be an outcome of emotional intelligence. Alsop & Lloyd (2002) noted leadership development as *a capacity* for multifaceted conditions.

### ***Leadership Development: A Process and Outcome***

Several examples presented themselves in the occupational therapy literature that demonstrated a monistic approach to leadership development, emphasizing leadership development is the means and the end. Engaging in leadership activities begets leadership development. By the very nature of occupational therapy, engaging in everyday practice promotes opportunities for building leadership skills and behaviors through problem-solving and addressing day-to-day challenges (Baum, 2007; Cruanes, 2009b; Scott, 1985; Ziviani, 2017). Brachtesende (2006) and Reimer (2000) emphasized the importance of learning by doing when considering leadership development. Jones (2008) noted the importance of active participation in the profession and this is supported by Lapointe (2013) who emphasized leadership can be developed by representing and advocating for the profession. Gmitroski (2013), Heard et al. (2018), and Nagel (2014) all supported the idea that taking on a leadership role further develops leadership. Leadership performance develops from experience and opportunity (Dillon, 2001). Fleming-Castaldy and Patro (2012) discussed the five principles of leadership theorists Kouzes and Posner as a process and as a measurement outcome of leadership for occupational therapy managers. Snodgrass and Shachar (2008) presented a study that looked at the use of leadership development activities for administrators as a means to foster performance in leading education and scholarship efforts within an occupational therapy department. Alsop and Lloyd (2002) examined the importance of providing leadership development opportunities to occupational



therapists so they can gain the qualities and attributes needed for leadership. Ziegler Delahunt et al. (2018) described several strategies including reflection, goal setting, and community engagement as the vehicle and outcome of leadership skill development.

### **Pragmatic Considerations**

Pragmatic perspectives consider the practical application of leadership development and therefore this aspect of the analysis focused on empirical research on the topic. Outcomes from the literature search included 10 research articles that presented empirical evidence on leadership development and three articles that provided anecdotal evidence of leadership development approaches. Leadership development was evaluated in the two main contexts of academia and practice.

Within the academic setting, studies focused both on educators and students. One study by Snodgrass and Shachar (2008) investigated how institutional leadership development for program directors influenced faculty perceptions of leadership outcomes. A majority of the other studies in academia focused on student leadership development. Gafni Lachter and Ruland (2018) evaluated the results of a peer-mentoring program for leadership development and found it to be of value to students. Larkin and Hitch (2019) found that students developed leadership skills through a peer program. Hendricks and Toth-Cohen (2018) shared the positive results of participation in a student leadership camp in South Africa. Experiential learning was also found to be a focus of research studies for leadership development in the academic context. Mu et al. (2010) reported that leadership behaviors were established and supported by international outreach experiences. Recigno et al. (2020) identified the doctoral capstone experience as a means to enhance student perceptions of leadership behaviors. Dunbar and Winston (2015)

presented a poster session that acknowledged Level I fieldwork provides opportunities for observing and developing leadership skills.

Similar studies were completed in the practice context. Schemm & Bross (1995) reported on how mentoring impacted occupational therapy leaders. Burtner et al., (2009) also evaluated whether the leadership modeling behaviors of Jean Ayers resulted in leadership development in other occupational therapy practitioners. Heard et al. (2018) shared the importance of developing informal leaders to influence positive outcomes in the workplace. Scott (1985) identified characteristics and life experiences that contributed to leadership development specifically related to women leaders. Several authors presented informal outcomes of workplace-related leadership development programs, however, these were not systematic studies and provided mostly subjective results (Recigno & Toth-Cohen, 2010; Yamkovenko & Waite, 2011).

### **Linguistic Considerations**

Language around leadership development has important implications, as it communicates the nuances and viewpoints of leadership with its descriptions. While the term *leadership development* was often the key phrase used in the occupational therapy literature, another verbiage emerges when describing these processes and outcomes. The predominant word that appears in the most recent literature is *capacity*. In the last decade or so, leadership is seen as something in which to build capacity and this word *capacity* appears in ten articles (Cruanes, 2009b; Davidson, 2012; de Jongh, 2014; Gafni Lachter & Ruland, 2018; Hunter, 2013; Moyers, 2007; Pattison, 2020; Stoffel & Lamb, 2014, Rodger, 2017; Townsend et al., 2011). Davidson (2012) included the word *capability* with capacity and Hunter (2013) included *confidence* in addition to those two words. Leadership development was described as a personal or professional competency by Pentland (2012) and Nagel (2014) used the word *potential*.

Leadership development was often found to be lateral to other concepts such as power, management, strategic planning, and advocacy (Clark, 2010; Stoffel & Lamb, 2014; Yamkovenko & Waite, 2011). At times the concept of leadership development was also blurred with some of these concepts that are often connected to leadership. In an article by Bowen & Fischbach (2017), leadership development was often interchanged with advocacy. Mentorship was another term often used to denote leadership development (Burtner et al., 2009; Lapointe et al., 2013; Schemm, 1995). Burke (1984) referred to the terms “business and management skills” when framing elements of leadership necessary to support workplace roles (p. 28). The use of an analogy also emerged, such as the portrayal by Stoffel (2013) and Ellison et al. (2013) of leadership development as a *journey*, or later Stoffel and Lamb (2014) and Cendejas (2016) describing it as a *path*.

### **Logical Considerations**

Logical considerations in a concept analysis evaluates how the concept retains its perspective when applied in the context of other concepts (Penrod & Hupcey, 2005). Leadership development is a central theme in articles that focus on advancing the profession. Often the perspective offered centered on how leadership is used to propel the profession and the need for persons who can exhibit the skills necessary to take on leadership roles (Alsop & Lloyd, 2002; Baum, 2007; Brachtensende, 2006; Cruanes, 2009b). Lapointe et al. (2013) added that leadership development is necessary to “achieve full capacity of a profession” (p. 39). Additionally, the call for leadership needs to be answered by diverse persons who have the power to influence (Fleming-Castaldy & Patro, 2012; Gibson, 2020). Schemm and Bross (1995) emphasized the need to “develop leaders who remain in the profession, improve the practice and association, and communicate occupational therapy needs to others...” (p. 32). There was a clear

connection between leadership development for the growth of the profession, however, as previously discussed in pragmatic considerations, leadership development was not often clearly operationalized to fully enact this vision. Leadership development was also connected to the idea of clinical reasoning. Leaders view challenges and solve problems through clinical reasoning (Burke & DePoy, 1991; Cruanes, 2009b).

### **Discussion of the Conceptual Components**

This concept analysis revealed that leadership development has a parallel relationship to that of the occupational therapy profession as a whole. For much of occupational therapy's history, the profession has provided a framework for the occupational therapy process, but not until recently has this process been studied and evaluated systematically for its efficacy. Similarly, leadership development was most often discussed in the philosophical sense and why it's needed, yet little has been done to study this concept during the last 100 years of the profession. In 1955, the *American Journal of Occupational Therapy* (1955) stated that "leadership is a science", however, this has not been fully operationalized in the occupational therapy literature in the years since then (p. 232). It is also interesting to view the prominence of leadership development in the literature and its similar path to occupational therapy's paradigm shifts. Throughout the 1980s and 1990s, there were very few articles that discussed the necessity of leadership development. As occupational therapy returned its focus to occupation in the 1990s and 2000s, there was also an uptick in the literature that articulated leadership development as a topic of importance for occupational therapy practitioners. As occupational therapy started to grapple with its vision for the profession moving into its second century, there may have been a realization that certain skills and behaviors were needed to influence this outcome (Copolillo et al., 2010; Moyers, 2007; Musselman, 2007). Rodger (2012) asked, "My

question relates to whether occupational therapy leadership is congruent with both contemporary leadership and occupational paradigms?” (p. 174). It appears that there are some similarities but this is difficult to fully discern.

Challenges emerge to evaluate whether occupational therapy leadership development approaches use best practices or are consistent with the current paradigm with the dearth of literature. In the concept analysis by Walder et al., (2021), they noted that to “progress a concept within the profession, it is important to be able to build the evidence-base around it. Conceptual refinement is a critical first step.” (p. 35). The occupational therapy profession may need to spend time defining and articulating what leadership development means within this contemporary occupational lens. Leadership development is multifaceted and requires an integrated approach (McCauley & Palus, 2021). Providing systematic methods and a common understanding of the end goal may be beneficial for the occupational therapy profession to explore.

Occupational therapy education is often the start of leadership development within the context of the profession and educators and administrators need to give greater attention to understanding how students are enculturated to the idea of leadership development. Now more than ever with a healthcare crisis and the need for advocacy and justice, diversity, equity, and inclusion initiatives – leadership is critical to foster in occupational therapy students and practitioners. There also needs to be a focus on the development of diverse leaders (Gibson, 2020). With that understanding, there should be greater emphasis on the topic of leadership development, however this circles back to the question of why the profession is not talking more about this concept.

Despite the increase of interest in leadership development in the occupational therapy literature in recent decades, it still leaves the issue as to why this topic has such limited attention as a whole. It is an important concept in the profession and yet few empirical studies look at effective strategies for students and practitioners on a global level. Leadership discussions tend to be in periodicals and gray literature such as *OT Practice* and are not found in more rigorous journal articles. Does occupational therapy not find leadership development to be within our scope? Historically, leadership had been identified as a challenge for women to develop (Scott, 1985). As a predominantly female profession, are we still not comfortable with the idea of leadership? Many unanswered questions need additional research and analysis, however, whatever the reason may be, leadership development needs to be brought more to the forefront. The profession needs more examples of leadership development in which to model our behaviors and observe excellence in this area to guide future actions (Brachtesende, 2006, Burke & DePoy, 1991; Dillon, 2001; McGowan & Stokes, 2019). Making these changes could lead to a change in the quality of output of leadership development literature.

Thus, this warrants the impetus for a starting point in which to ground the work needed on leadership. Using the historical perspectives and common themes of leadership development over the last several decades, an attempt to provide a definition may facilitate further evaluation of this concept in a more systematic method. One outcome of performing a concept analysis is to ascertain a theoretical definition of that concept.

### **Theoretical Definition**

After reviewing the occupational therapy literature on the topic of leadership development, there was a breadth of viewpoints and language used to describe this concept. Considering these various perspectives lead to a proposed definition of leadership development:

*Leadership development in occupational therapy is the intentional process and outcome of strategically interacting with others and within contexts to enhance the skills and behaviors needed to influence personal and collective change for the betterment of the profession and society.* When seeking to study leadership development within the profession, this definition can be operationalized and used to offer parameters around the concept.

### **Conclusion**

Leadership development is critical for occupational therapy practitioners and the advancement of the profession. Leaders in education and practice can spearhead advocacy efforts in producing and disseminating more literature to support the profession's understanding of leadership development as a concept. Having a theoretical definition can support these efforts with a shared understanding of this concepts in which to systematically analyze. Outcomes can result in fostering greater potential and opportunity to build capacity, ensure competency, and develop leaders of the occupational therapy profession.

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## **Manuscript 2 Part I - Developing Leaders of the Profession: Exploring Influential Factors in Leadership Education within Entry-level Occupational Therapy Doctoral Programs**

### **Introduction and Background**

Central to occupational therapy education is preparing students to be leaders in the field of occupational therapy. Proponents of the occupational therapy doctoral degree, emphasize future occupational therapists need advanced skills so they are best prepared to meet the challenges of healthcare and society (Brown et al., 2015b). Doctoral entry-level education offers additional training and scholarly activities in areas that often move beyond clinical practice. Accreditation standards require that occupational therapy students who graduate from entry-level doctoral programs have “in-depth knowledge of delivery models, policies, and systems related to practice” and the ability to “synthesize in-depth knowledge in a practice area with an emphasis on advanced skills in concepts such as research, advocacy, and leadership” (Accreditation Council for Occupational Therapy Education, 2018, p. 3). Occupational therapy doctoral programs are tasked with developing these advanced skill sets in a meaningful and practical way. Many occupational therapy leaders also emphasize the importance of leadership education for innovation and sustainability of the profession (Heard, 2014; Hinojosa, 2007; Moyers, 2007a; Moyers, 2007b; Stoffel, 2013). Therefore, it is imperative that the strategies used to develop leadership are effective and are lifelong skills and behaviors.

Evidence-based educational methods are essential to effective teaching practices. Accreditation standards mandate education on leadership, but little direction is provided on how this should occur (Liotta-Kleinfeld et al., 2018). Despite the importance placed on developing leadership as an advanced skill in doctoral entry-level education, accreditation standards scarcely

articulate the pertinent aspects of leadership that are essential in occupational therapy education. Educators are required to teach leadership, but leadership as a construct is complex and not well-defined in occupational therapy. This poses a significant concern, as this core concept is left to the interpretation of the occupational therapy educator to determine what concepts and how leadership should be taught.

There is much discussion within higher education on how to develop leadership skills and behaviors, although there is little consensus (Reyes et al., 2019; Winston & Patterson, 2006). When reviewing the literature, best practices in leadership education emerged as helpful guidance in teaching this topic. It is first important to consider students as adult learners and provide learning opportunities that are contextualized within their field of study and embedded in life experience (Brown, 2006; McCauley et al., 2017; Scott & Webber, 2008). Leadership development needs to be an active and reflective learning process that emerges over time and with experience (Dugan, 2011; Foli et al., 2014; Heard, 2014; Pinnington, 2011). Helping students create a leadership identity is also fundamental to seeing the integration of leadership behaviors into practice (Clapp-Smith et al., 2019; Dugan, 2011; McKimm & McLean, 2020). Occupational therapy programs have a vested interest in developing leadership within future practitioners and therefore should consider how to incorporate these evidence-based strategies.

In addition to using evidence-based strategies, educators need to guide learning with intention and use relevant educational theories for effective outcomes. Because occupational therapy educators are tasked with teaching complex and abstract topics such as leadership and clinical reasoning, these educators must effectively convey this information, as people's lives and the livelihood of the profession depend on competent practitioners in the field. Additionally, adult learners, consistent with the demographic of occupational therapy students, present with

various life experiences that shape the way they learn and influence their engagement. There are many different theoretical perspectives an educator might use to guide their teaching strategies. When evaluating the best practices of leadership education, a clear connection can be seen with one adult learning theory in particular.

Andragogy, the study of adult learning, provides a lens that considers the unique experiences and motivations adult learners bring to their educational context (Jeanes, 2021; Knowles et al., 2020; McCauley et al., 2017). This educational theory offers an important perspective in fostering learning for adult students. Andragogy offers many benefits to its learners. Andragogy acknowledges that adults hold more roles (spouse, parent, employee, etc.) than that of a school-aged child and these roles often are the premise for engaging in learning activities. By using an adult-centered approach to teaching, learners can demonstrate increased engagement with the learning material, leading to greater autonomy and immediate carry-over into their daily responsibilities (Ozuah, 2005). Andragogy can also be a powerful tool for leadership development, connecting past experiences to the skills needed for future success (Brown, 2006; Jeanes, 2021; McCauley et al., 2017). Instructors recognize and integrate the depth of experiences adults bring to the learning environment and use this as a spring board for education (Charungkaitkul & Henschke, 2018; Merriam & Bierema, 2014). Adults may feel more validated in this collaborative environment and in turn, can further support motivation in pursuing an educational venture. It would be incumbent upon occupational therapy educators to use this perspective to address leadership in doctoral entry-level education.

Occupational therapy is a specialized field and therefore educators who teach in occupational therapy programs are most often occupational therapists. The American Occupational Therapy Association (2020b) considers academia to be an area of practice for

occupational therapists, however, many educators have likely not received any formalized training in teaching or adult education theory. Richmond et al. (2016) emphasized the importance of model teachers having a balance of pedagogical knowledge and subject matter expertise and express concern about the lack of formal education for many college instructors. In 2018, less than 1% of the profession had a Ph.D. or ScD, and only 9.6% had a professional doctorate (American Occupational Therapy Association, 2020a). The Accreditation Council for Occupational Therapy Education (ACOTE®) (2018) requires that 50% of core faculty have a post-professional doctorate and that all faculty demonstrate expertise in their area of teaching. With a shift to doctoral education, there are concerns about whether educators with clinical doctorates have sufficient skills to prepare students in an academic environment and grow the body of knowledge within occupational therapy (Brown et al., 2015). Teaching advanced concepts such as leadership may be a challenge for occupational therapy educators, as some have a background limited to occupational therapy graduate-level education. Educators need to be competent and confident in their knowledge of leadership education practices to effectively develop the necessary behaviors and skills. They also need to use an appropriate theoretical lens, such as andragogy, to guide their teaching approaches to best meet the needs of the learners in their classroom.

More research is needed on how andragogy as a learning theory is integrated into the classroom. Heard (2014) noted a significant gap in the occupational therapy literature on leadership theory, finding “a significant disconnect between research in occupational therapy and ongoing theoretical development related to leadership” (p. 2). This paucity of literature needs greater attention and therefore is the impetus for this study. The purpose of this study is to understand how andragogy is used by occupational therapy educators to develop leadership and

how their characteristics as educators may influence this process. Therefore, the research questions were:

- What level of andragogical teaching do occupational therapy educators use to teach entry-level doctoral leadership accreditation standards?
- What factors influence andragogical teaching in occupational therapy educators teaching leadership?

## **Methodology**

### **Research Design**

The primary purpose of the study was to describe occupational therapy educators' level of andragogical teaching and to determine whether any of their demographic factors predict this value. One of the simplest designs, survey methodology, is most often used for descriptive purposes and solicits information from participants about a particular phenomenon with structured questions and then draws inferences using descriptive and inferential statistics (Leedy & Ormrod, 2019; Portney, 2020). Survey methodology was a valuable tool to gather this data, as it provided an economical approach to target the population with very few resources required to administer (Creswell & Creswell, 2018). Online survey methodology specifically allowed the primary investigator to disseminate materials electronically, thereby facilitating the participation of programs that were not geographically nearby (Lefever et al., 2007). This format also supported data collection to occur in real-time and when convenient for participants to complete the survey. An experimental design was not adopted as educators are required by accreditation standards to address leadership within entry-level doctoral programs and therefore randomization is not possible. Additionally, the population was too small to effectively randomize and obtain sufficient statistical power. The data collected was cross-sectional and occurred only one-time.

The University of South Dakota Institutional Review Board approval and participant consent were obtained before the start of data collection.

## **Participants**

For this research study, the primary investigator recruited educators who taught leadership within entry-level doctoral occupational therapy programs to participate in the survey. Programs were identified through a search of the ACOTE school directory of doctoral programs. Accredited programs as well as programs in preaccreditation and candidacy status were included, as these programs have admitted students (n=121). It is noted that some schools in candidacy status do not yet have students and therefore may not have been eligible for participation. Participants for this study included all educators involved in leadership course planning and content delivery and therefore full-time faculty and adjunct faculty were eligible. Additionally, inclusion criteria required that these educators taught leadership under the 2018 Accreditation Council for Occupational Therapy Education (ACOTE®) standards to ensure a consistent view of the topic. Participants were excluded if they taught leadership before these standards or if they were teaching solely in a masters or occupational therapy assistant program and did not teach doctoral-level standards. Due to the small number of entry-level doctoral programs and occupational therapy educators teaching leadership, Leedy and Ormrod (2019) suggest there is minimal need to sample and recruitment included all persons within the population.

## **Instruments**

The study instruments consisted of a demographic survey and the *Modified Instructional Perspectives Inventory* (MIPI). Created by the primary investigator, the demographics survey solicited basic biographical data, years of teaching experience, leadership experience, educational background, and questions regarding coursework and accreditation standards



addressed when teaching their interpretation of leadership (Appendix A). Gender descriptions were based on data from the World Health Organization (n.d.) and ethnicity categories were created by the National Institutes of Health (2015).

The Modified Instructional Perspectives Inventory (MIPI) is a tool that aims to measure the use of andragogical principles in teaching (Henschke, 2016). Due to the relatively new emergence of andragogy as a theoretical framework, there are limited assessment tools to capture data around this concept (Rachal, 2002; Taylor & Kroth, 2009). Initially developed in 1989 by John Henschke, the MIPI has undergone several iterations to its current version and was designed to assess instructors' perceptions of andragogical teaching using a self-scoring, self-assessment, 45-item Likert scale (Henschke, 2016; Young et al., 2020). The tool provides a total score that is categorized into five levels of andragogy from *Low Below Average* to *High Above Average*. Items from the inventory can also be scored for seven different factors: 1) teacher *empathy* with learners, 2) facilitator *trust* of learners, 3) *planning* and *delivery* of instruction, 4) *accommodating* learner uniqueness, 5) teacher *insensitivity* toward learners, 6) *learner-centered* learning processes (experience-based learning techniques), and 7) *teacher-centered* learning process. These factors provide a more descriptive score on specific aspects of andragogical teaching and allowed the educator to see areas of strength or areas which need greater attention in their andragogical approach.

A review of the available literature revealed that most psychometric testing and use of the MIPI were primarily found in unpublished dissertations. Young et al. (2020) reported from their review of the literature that the MIPI has strong “internal consistency reliability, convergent validity on multiple factors, evidence of concurrent validity and predictive validity” (p. 3). This assessment tool is versatile in its use; Young et al., (2020) used this assessment for coaching,

Giuseffi (2019) used the MIPI with students, and Henschke (2016) applied this tool to a corporate population. According to Henschke (2011), the MIPI “was validated as an almost perfect ‘bell-shaped’ measurement of an andragogical facilitator” (p. 34). Questions from the MIPI can be found in Appendix B.

## **Procedures**

Recruitment and data collection occurred simultaneously. The primary investigator sent a recruitment email to program directors of entry-level doctoral programs requesting they share the study information with faculty who teach leadership within their department. An important point to clarify, the primary investigator had previously considered requesting the input of educators whose content covered specifically B.5.0 and B.7.0 leadership-based accreditation standards. Upon further reflection, it was edifying to understand which accreditation standards occupational therapy programs felt addressed the concepts of leadership. Therefore, the program director was asked to select the faculty who teach leadership as to their interpretation of the topic. The recruitment email contained all the necessary information about the study procedures and a hyperlink to a Qualtrics survey. Reminder emails were sent monthly during the recruitment phase. Additionally, recruitment materials were also posted on occupational therapy community sites including *CommuOT* and the *OT Research Studies or Product Placement Group* on Facebook.

## **Data Collection**

Data collection occurred in an organized and secure format to ensure ethical practices. Once educators clicked on the link and completed the survey, the data populated to a password-protected Qualtrics database and web platform. After the recruitment phase was over, the primary investigator downloaded the results from the consent form, demographic questionnaire,

and MIPI in an excel file and stored the data in an encrypted folder on a password-protected computer. The primary investigator deidentified each participant in the excel file by assigning them a number and created a corresponding code sheet which was stored in a separate file in the encrypted folder. Data cannot be fully de-identified, as the primary investigator needed to identify and select participants for qualitative follow-up and to disseminate the results if selected by the participant as a response.

### **Data Analysis**

This study sought to determine if there were any influential personal factors in the level of andragogy occupational therapy educators use to approach leadership education. IBM® SPSS® Statistics software was used for all data analysis procedures. First, descriptive statistics were used to analyze demographic data and the raw data from the MIPI questions. Frequency distributions, measures of central tendency, and measures of spread provided an overview of study participant characteristics and scores (Portney, 2020). In addition to describing the characteristics of the data, the data analysis took an exploratory approach to assess whether there was a relationship between demographic factors with the total MIPI score. To do this, the primary investigator used multiple regression analysis and Pearson's correlation coefficient analysis. This type of statistical analysis allowed the primary investigator to examine multiple variables, continuous and categorical, and to explain variance in the dependent continuous variable (Portney, 2020). The significance level was set at .05.

### **Results**

By nature, this study was primarily descriptive and sought to identify the degree of andragogical teaching within occupational therapy education. The results of the demographic data in relation to the MIPI scores provided important information regarding whether there were

predictive variables to andragogical teaching. When using multiple regression and correlation to analyze data, an appropriate sample size was necessary for statistical power (Portney, 2020). Due to the small population of occupational therapy entry-level doctoral programs, the required number of participants to achieve 80% power is challenged. A G\*Power analysis indicates at least 100 participants were required to have a medium effect size (Faul et al., 2009). Other authors indicated that 10-15 participants per independent variable would yield sufficient power (Babiyak, 2004; Portney, 2020). With eight independent variables in this study, this required 80 participants for sufficient power.

**Demographics**

There was a total of 34 participants in this study. Occupational therapy educators from across the country participated and were a similar representation of the demographic makeup of the occupational therapy profession (American Occupational Therapy Association, 2022). Participants have varying degrees of teaching experience, leadership experience, and educational background. Participant characteristics are depicted in Table 4.2.1 and their years of experience are presented in Table 4.2.2.

**Table 4.2.1**

*Personal Characteristics Demographic Data*

<b>Characteristic</b>	<b>Category</b>	<b>Frequency</b>	<b>Percent</b>
<b>Faculty Position</b>	Full-time	31	91.18
	Adjunct	3	8.82
<b>Terminal Degree</b>	OTD	16	47.06
	PhD	12	35.29

	Edd	3	8.82
	Other	3	8.82
<b>Gender</b>	Female	30	88.24
	Male	4	11.76
<b>Ethnicity</b>	Asian	4	11.76
	Black	2	5.88
	Hispanic	1	2.94
	White	27	79.41
<b>Region</b>	Northeast	9	26.47
	Midwest	12	35.29
	Southeast	6	17.65
	Southwest	3	8.82
	West	4	11.76

**Table 4.2.2**

*Occupational Therapy Educators' Years of Experience*

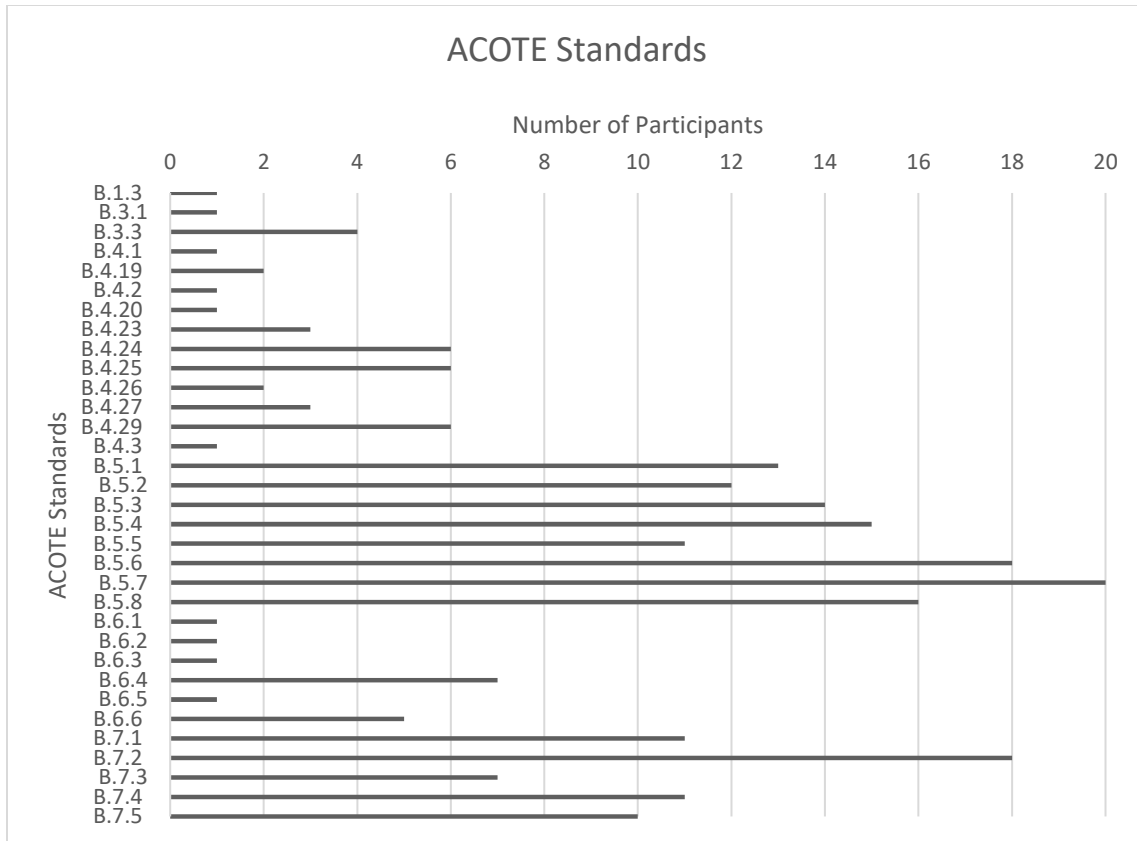
<b>Experience in Years</b>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>Std Dev</b>	<b>Minimum</b>	<b>Maximum</b>
Years in OT	34	23.21	21.00	21.00	8.51	7.00	44.00
Years Teaching	34	10.80	11.50	12.00	6.43	1.00	29.00
Years Leadership*	33	16.06	15.00	12.00	8.90	2.00	35.00

*\*Missing Data*

Basic qualitative data were obtained to determine what experiences educators identified as influential to their leadership. Participants acknowledged leadership experiences that included management positions, academic leadership positions, professional service-related activities, military service, informal workplace positions or clinical leadership, and education-related experiences such as student organization involvement, and community service. Educators were also asked to identify what ACOTE standards they addressed in their course when teaching leadership. More than half of the programs identified B.5.6. *Market the Delivery of Services*, B.5.7 *Quality Management and Improvement*, and B.7.2. *Professional Engagement* as core standards in their leadership courses. One program stated, “None, I teach practical leadership skills” when asked to identify the ACOTE leadership standards associated with their course. Figure 4.2.1 shows the frequency and the ACOTE standards identified as part of the leadership-related coursework.

**Figure 4.2.1.**

*Frequency of ACOTE Standards Taught in Leadership Coursework*



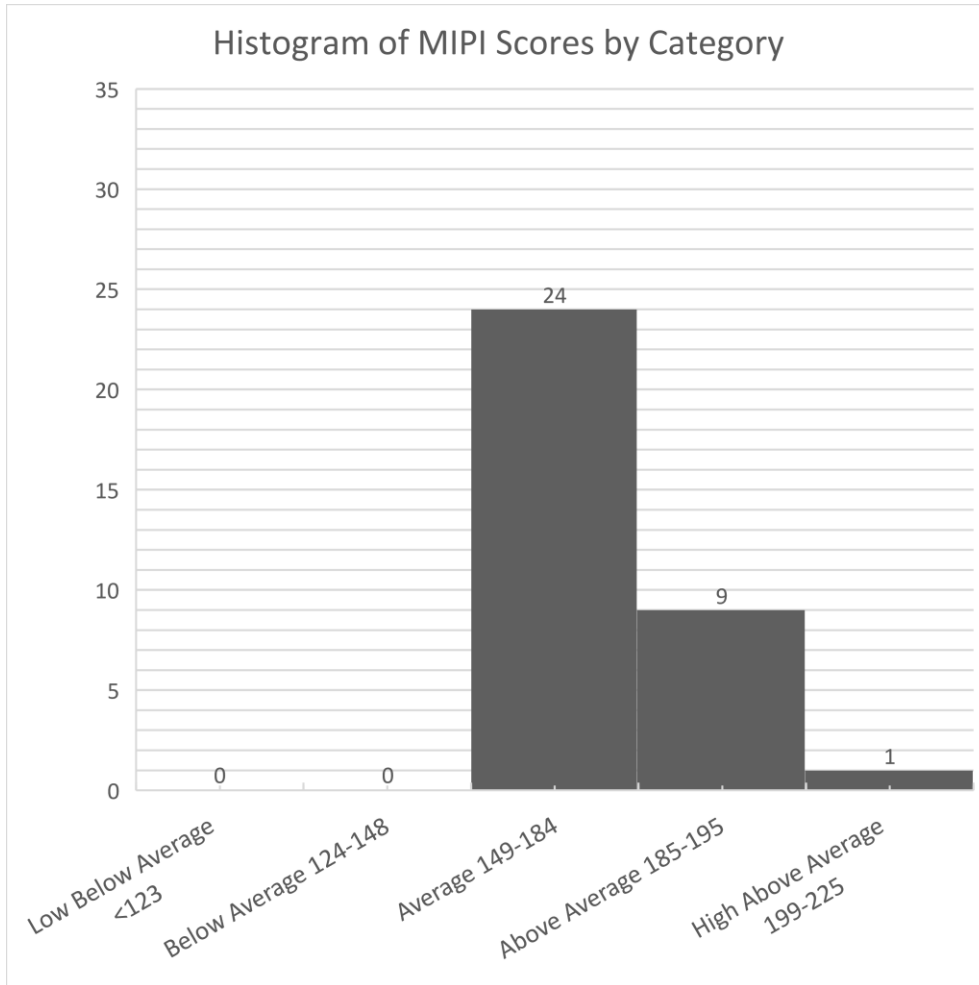
## Descriptive Data

Descriptive data also included the results from the MIPI. Aggregate data from this tool offered a total score that can be categorized into the level of andragogical teaching educators employed in their leadership coursework. The mean score of the MIPI score for the participants was 179.88 (SD = 9.43), which is an average level of andragogical facilitation (Figure 4.2.2.).

Items from the inventory were scored for seven different factors: 1) teacher *empathy* with learners, 2) facilitator *trust* of learners, 3) *planning* and *delivery* of instruction, 4) *accommodating* learner uniqueness, 5) Teacher *insensitivity* toward learners, 6) *learner-centered* learning processes (experience-based learning techniques), and 7) *teacher-centered* learning process. Table 4.2.3 provides the occupational therapy educators' mean factor scores and the overall percentage based on the total possible points one could score within each factor.

**Figure 4.2.2**

*Histogram of the MIPI Total Score*



**Table 4.2.3**

*Occupational Therapy Educators' MIPI Factor Scores*

<b>Factor Category (Total Possible Score)</b>	<b>Mean Score (SD)</b>	<b>Percentage</b>
Teacher empathy with learners (25)	21.41 (1.54)	85.64
Facilitator trust of learners (55)	47.71 (3.61)	86.75
Planning and delivery of instruction (25)	22.76 (1.81)	91.04



Accommodating learner uniqueness (25)	28.82 (2.18)	82.34
Teacher insensitivity toward learners (35)	27.47 (3.01)	78.49
Learner-centered learning processes (25)	18.00 (2.93)	72.00
Teacher-centered learning process (25)	13.74 (2.87)	54.96

**Explanatory Data**

*Multiple Regression Analysis*

A multiple regression was run to predict the total MIPI score from gender, ethnicity, region, position, terminal degree, and years of experience in occupational therapy, teaching, and leadership. There was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.508. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no evidence of multicollinearity, as assessed by tolerance values greater than 0.1. There were no studentized deleted residuals greater than  $\pm 3$  standard deviations, no leverage values greater than 0.2, and values for Cook's distance above 1. The assumption of normality was met, as assessed by a Q-Q Plot. The multiple regression model did not statistically significantly predict the MIPI score  $F(8, 25) = .888, p = .540, \text{adj. } R^2 = -.028$ . Regression coefficients and standard errors can be found in Table 4.2.4.

**Table 4.2.4**

*Multiple Regression Results for the MIPI Total Score*

<b>Residuals Statistics</b>
-----------------------------

	Min.	Max.	Mean	Std. Deviation	N
<b>Predicted Value</b>	166.99	193.19	179.88	4.434	34
<b>Std. Predicted Value</b>	-2.909	3.001	.000	1.000	34
<b>Standard Error of Predicted Value</b>	2.378	8.675	4.716	1.409	34
<b>Adjusted Predicted Value</b>	167.65	191.88	180.06	5.118	34
<b>Residual</b>	-19.969	14.649	.000	8.317	34
<b>Std. Residual</b>	-2.090	1.533	.000	.870	34
<b>Stud. Residual</b>	-2.410	1.912	-.002	1.025	34
<b>Deleted Residual</b>	-26.551	22.783	-.177	11.937	34
<b>Stud. Deleted Residual</b>	-2.695	2.027	-.011	1.073	34
<b>Mahal. Distance</b>	1.073	26.226	7.765	5.315	34
<b>Cook's Distance</b>	.000	.309	.055	.087	34
<b>Centered Leverage Value</b>	.033	.795	.235	.161	34

### *Correlation Analysis of Continuous Variables*

A Pearson's product-moment correlation was run to assess the relationship between the total MIPI score and the 34 occupational therapy educators' experience in the number of years practicing as an occupational therapist, in leadership, and as educators (Table 4.2.5.).

Preliminary analyses showed the relationship to be linear with both variables normally distributed, as assessed by Shapiro-Wilk's test ( $p > .05$ ), and there were no outliers. There was no statistically significant correlation between each variable of years of experience and the total MIPI score. Years of experience in occupational therapy,  $r(32) = .030$ ,  $p = .88$  explained .09% of the MIPI score. Years of experience in teaching,  $r(32) = .025$ ,  $p = .89$  explained .06% of the MIPI score. Years of experience in leadership,  $r(32) = -.27$ ,  $p = .126$ , explained 7% of the

variation in the MIPI, showing a small negative correlation. There was a small correlation noted between years of experience as an OT and years of leadership experience,  $r = .22$ , and a large correlation between years of experience as an OT and years of teaching,  $r = .74$ .

**Table 4.2.5**

*Correlation Analysis of Continuous Variables*

		<b>Correlations</b>			
		Years-OT	TOTAL_MIPI	Years_Teaching	Years_Leadership
Years-OT	Pearson Correlation	1	.030	.740**	.215
	Sig. (2-tailed)		.867	.000	.222
	N	34	34	34	34
TOTAL_MIPI	Pearson Correlation	.030	1	.025	-.268
	Sig. (2-tailed)	.867		.887	.126
	N	34	34	34	34
Years_Teaching	Pearson Correlation	.740**	.025	1	-.004
	Sig. (2-tailed)	.000	.887		.983
	N	34	34	34	34
Years_Leadership	Pearson Correlation	.215	-.268	-.004	1
	Sig. (2-tailed)	.222	.126	.983	
	N	34	34	34	34

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Discussion

Findings from this study help describe who is educating occupational therapy students on leadership concepts and how they approach this essential foundation to practice. Occupational therapy educators were found to be average-level andragogical facilitators in the classroom. This was somewhat surprising considering the “client-centered” nature of occupational therapy practitioners, and the assumption that they would be more likely to acknowledge and integrate the lived experiences of the adults in their classroom and contextualize teaching to occupational therapy practice. The factor analysis sheds light on why occupational therapy educators’ level of andragogy may not be as high as anticipated. High-scoring items included *teacher empathy with learners* (85.64%), *teacher trust of learners* (86.75%), and *planning and delivery of instruction* (91.04%). Occupational therapists are naturally inclined to create a learning environment of unconditional positive regard, reflecting the values of the profession and traditional modes of a therapeutic relationship (Wong et al., 2020). Educators using empathy in the classroom acknowledge the student experience and provide positive reinforcement to desired student behaviors thereby also promoting personal causation and motivation.

Additionally, questions related to planning and delivery of instruction included the integration of multimodal and creative instructional strategies specific to the subject matter, which fits well with an occupational therapy perspective as applied to education. Creativity is a core skill set in occupational therapy practice and incorporating this approach into the learning experience can maximize student engagement. More importantly, in this factor, teaching techniques were often cohesive with the content area, which could help students orient to how leadership skills and behaviors relate directly to occupational therapy practice. One of the highest-scoring items within the planning and delivery question subset was the item, *establishes*

*instructional objectives* (mean = 4.74/5; 95%). Occupational therapy education is very intentional and establishes clear instructional objectives. This can help ground students on why leadership is so important in occupational therapy practice. This item likely scored higher due to the need to cover specific accreditation standards related to leadership. Courses that are responsible for meeting accreditation standards must demonstrate evidence of a learning activity and assessment related to the standard (ACOTE, 2018). Subsequently, this often informs course objectives as well as specific instructional objectives for course content to ensure the standard is met.

Conversely, the need to address accreditation standards may also have played a role in the low-scoring item, *teacher-centered learning process*. A reverse-scored item, educators averaged just above 50% for this factor, demonstrating that their educational methodology is very teacher-centered, requiring that students follow a set learning plan and that content is very clear so as not to leave room for questions. Within occupational therapy education, because evidence is needed to demonstrate accreditation standards are met through learning activities and related assessments, it may be challenging to deviate from the course content or structure if that course is designated as the primary course to meet specific standards. Rather than use principles of andragogy, occupational therapy educators must rely more on pedagogical practices and directly convey the necessary information to ensure consistency in the message to meet accreditation requirements. Within higher education, learning often occurs on a continuum starting with pedagogy to lay a solid foundation and evolving to andragogy and heutagogy teaching approaches as students master the concepts and can apply them in a more abstract way (Akyildiz, 2019). Depending on where in the curriculum learning occurs, this may influence how occupational therapy educators teach leadership. In the classroom, educators may prioritize

teaching foundational content using pedagogy with the understanding that deeper personal connections with and application of the content will likely occur during fieldwork experiences.

This study also aimed to determine if there were other influential factors in how occupational therapy educators approached leadership. The results indicated there were no predictive factors or correlation between occupational therapy educator characteristics and the MIPI score. This finding was helpful evidence to support that the terminal degree, whether it is a Ph.D., an Ed.D., or an OTD did not make a significant difference in how occupational therapy educators approached leadership. This may address concerns brought forth by Brown et al. (2015), that OTD-prepared educators may lack the necessary skills for academia. Despite some educators not having a formal education in teaching, this did not influence how the topic of leadership was taught. Occupational therapy educators may rely more on using personal experiences from their therapy practice to guide instruction rather than formalized education in pedagogy or andragogy. Leadership experiences and backgrounds are diverse amongst OT educators. Incorporating and sharing anecdotal leadership experience can add value to the educational experience of the student, however, it may not offer an equitable lens of leadership across multiple programs. Furthermore, depending on the area of concentration, even educators with a post-professional doctorate, such as a Ph.D., may not have taken coursework related to adult learning theory that would prepare them for educating future occupational therapists.

Challenges with educator academic preparedness are not unique to occupational therapy and can be seen in other health professions and within medical education (Irby et al., 2010). Ringsted (2011) emphasized the need to have educators who are not only subject matter experts but also adept at curricular design and advising students. Similar studies that looked at teaching abstract concepts such as clinical reasoning identified the need for educators to gain additional

professional development in best teaching practices (Christensen et al., 2017; Henderson et al., 2017). This could be said as well for leadership and may help educators move beyond traditional pedagogical strategies to transform their teaching to meet the unique needs of the adult learners in their classroom. Adding accreditation requirements for faculty development around instructional design, curriculum development, and evidence-based teaching strategies may be beneficial to address the gap in knowledge related to effective teaching for practitioners turned academicians.

### **Limitations and Opportunities for Future Inquiry**

There were several limitations to this study that may have influenced the outcomes and support the need for additional inquiry into leadership education in occupational therapy. One limitation of this study was the selected measurement tools. While the MIPI has been used in multiple studies and tested for reliability and validity, additional evidence is still needed to support the rigor of this instrument and its applicability to occupational therapy education. Also, the MIPI may not be sensitive enough to capture some of the subtle nuances of teaching leadership and may be limited in scope when using this tool to assess more complex topics such as leadership or professional reasoning. The demographic questionnaire also presented a challenge. Educators did not consistently answer the post-professional doctoral question accurately and were therefore unable to make comparisons on whether an entry-level doctorate or post-professional doctorate had any significant influence on the MIPI score. Future inquiries may consider the use of alternative assessments of andragogical teaching such as the *Andragogy in Practice Inventory (API)* (Knowles et al., 2020). Future studies could also consider evaluating other variables such as institutional supports and the curriculum design of the program

(mission/vision, curricular threads, program goals, etc.) to determine if these factors influence how occupational therapy educators approach leadership development.

A main limitation of the study was the small population and sample size. At the time of the study, there were only 52 fully accredited doctoral programs and 68 programs in various stages of candidacy and preaccreditation status that may or may not have had students enrolled. A typical survey response yields around 30% participation, which was consistent with the results of this study (Portney, 2020). Thus, there was not sufficient power for the study with the small number of study participants. This may have contributed to the inconclusive findings and there was a possibility that some variables may be influential but not reflected in the data (Shreffler & Huecker, 2022). The impact of COVID-19 may have also played a role in the response rate with faculty cognitive loads impeding the ability to take on additional tasks such as taking a research survey (Bender et al., 2021; Ghasemi et al., 2021). Busy academic schedules leave little time to engage in any extraneous activities.

With a small population, the use of supporting qualitative methods to offer complementarity of the data could help to mitigate concerns with a small sample. More research is needed to understand how educators approach leadership education and a qualitative study could yield a more nuanced understanding of how this topic is addressed in the classroom. Another consideration would be to expand the population. For this study, the primary investigator chose to focus specifically on doctoral entry-level education, however, the inclusion of occupational therapy entry-level master's programs and occupational therapy assistant educators could capture a more robust picture of occupational therapy leadership education as a whole.



## **Conclusion**

This study helped to inform the academic community by describing the demographics, the level of andragogical facilitation, and the influential factors of occupational educators in entry-level doctoral programs who teach leadership. The outcomes of the study point to a need to foster faculty development opportunities in andragogical facilitation and to develop clear accreditation standards that promote teaching leadership in a manner that is in line with best practices in leadership education. Overall, more research is needed on how occupational therapy develops leadership capacity within entry-level education and beyond. Leadership will always be a critical foundation of a profession that is agile and innovative in meeting the rapidly changing needs of healthcare and society and a focus on this topic is paramount.

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## Appendix A

### Demographic Questionnaire

Instructions for the Demographic Questionnaire:

*This section will ask you to complete several demographic questions. Please consider only the courses in which you teach leadership.*

16. How many years have you been an occupational therapist?
17. How many years have you been teaching in academia?
18. Describe your position in academia:
  - Full-time
  - Part-time
  - Adjunct
  - Emeritus
19. What is your terminal degree? Please select one:
  - OTD
  - PhD
  - EdD
  - Other: \_\_\_\_\_
20. In what year did you earn this degree?
21. Do you have a post-professional doctoral degree? Yes or No
22. How many years of leadership experience do you have?
23. Please provide some examples of your leadership positions, roles, or experiences.
24. What accreditation standards do you address in your leadership course?
25. What is/are the course title(s) in which you address leadership? List as many as you teach.
26. Do you teach leadership and management in the same course? Yes or No
27. How do you assess leadership?
28. In what region of the United States do you teach occupational therapy?

- Northeast
- Midwest
- Southeast
- Southwest
- West

29. To which gender identity do you most identify (World Health Organization, n.d)?

- Male
- Female
- Transgender female
- Transgender male
- Gender variant/Non-conforming
- Prefer not to answer
- Not listed: \_\_\_\_\_

30. How would you describe your ethnicity (select all that apply) (NIH, 2015)?

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic or Latino
- Native Hawaiian or Other Pacific Islander
- White
- Prefer not to answer

## **Appendix B**

### **Modified Instructional Perspectives Inventory (MIPI; Henschke, 2016)**

*See next page*

## MODIFIED INSTRUCTIONAL PERSPECTIVES INVENTORY

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Listed below are 45 statements reflecting beliefs, feelings, and behaviors beginning or seasoned teachers of adults may or may not possess at a given moment. Please indicate how frequently each statement typically applies to you as you work with adult learners.

Circle one letter (A, B, C, D, or E) opposite each item that best describes you.

How frequently do you:

Almost Never	Not Often	Sometimes	Usually	Almost Always
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1. Use a variety of teaching techniques?
2. Use buzz groups (learners placed in groups to discuss)
3. Believe that your primary goal is to provide learners as much information as possible?
4. Feel fully prepared to teach?
5. Have difficulty understanding learner point-of-view?
6. Expect and accept learner frustration as they grapple with problems?
7. Purposefully communicate to learners that each is uniquely important?
8. Express confidence that learners will develop the skills they need?
9. Search for or create new teaching?
10. Teach through simulations of real-life?
11. Teach exactly what and how you have planned?
12. Notice and acknowledge to learners positive changes in them?
13. Have difficulty getting your point across to learners?

A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E

**How frequently do you:**

14. Believe that learners vary in the way they acquire, process, and apply subject matter knowledge?
15. Really listen to what learners have to say?
16. Trust learners to know what their own goals, dreams, and realities are like?
17. Encourage learners to solicit assistance from other learners?
18. Feel impatient with learner's progress?
19. Balance your efforts between learner content acquisition and motivation?
20. Try to make your presentations clear enough to forestall all learner questions?
21. Conduct group discussions?
22. Establish instructional objectives?
23. Use a variety of instructional media? (internet, distance, interactive video, videos, etc.)
24. Use listening teams (learners grouped together to listen for a specific purpose) during lectures?
25. Believe that your teaching skills are as refined as they can be?
26. Express appreciation to learners who actively participate?
27. Experience frustration with learner apathy?
28. Prize the learner's ability to learn what is needed?
29. Feel learners need to be aware of and communicate their thoughts and feelings?
30. Enable learners to evaluate their own progress in learning?

Almost Never	Not Often	Sometimes	Usually	Almost Always
--------------	-----------	-----------	---------	---------------

A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E
A	B	C	D	E

How frequently do you:

31. Hear what learners indicate their learning needs are?	A	B	C	D	E
32. Have difficulty with the amount of time learners need to grasp various concepts?	A	B	C	D	E
33. Promote positive self-esteem in the learners?	A	B	C	D	E
34. Require learners to follow the precise learning experiences you provide them?	A	B	C	D	E
35. Conduct role plays?	A	B	C	D	E
36. Get bored with the many questions learners ask?	A	B	C	D	E
37. Individualize the pace of learning for each learner?	A	B	C	D	E
38. Help learners explore their own abilities?	A	B	C	D	E
39. Engage learners in clarifying their own aspirations?	A	B	C	D	E
40. Ask the learners how they would approach a learning task?	A	B	C	D	E
41. Feel irritation at learner inattentiveness in the learning setting?	A	B	C	D	E
42. Integrate learning techniques with subject matter content?	A	B	C	D	E
43. Develop supportive relationships with your learners?	A	B	C	D	E
44. Experience unconditional positive regard for your learners?	A	B	C	D	E
45. Respect the dignity and integrity of the learners?	A	B	C	D	E

## **Manuscript 3 Part II - Developing Leaders of the Profession: Perceptions of Occupational Therapy Educators on the Use of Andragogical Principles in Leadership Coursework**

### **Background and Literature Review**

Leadership is vital to the occupational therapy profession and is an agency to expand practice and meet the needs of an ever-changing society and healthcare arena. *Leaders* is listed as a guidepost of the American Occupational Therapy Association's Vision 2025 and thus demonstrates the importance placed on occupational therapists' ability to influence change (American Occupational Therapy Association, 2017). The profession needs to focus on developing leaders at all levels from students to seasoned practitioners (Moyers, 2007). Leadership development is critically important in occupational therapy education, setting the stage for lifelong learning and engagement in leadership practices that ultimately impact the profession.

It is imperative for occupational therapy educators to use best practices when teaching or developing leadership in the classroom. Leadership development needs to be an active and reflective learning process that emerges with opportunities for practice over time (Dugan, 2011; Foli et al., 2014; Heard, 2014; Pinnington, 2011). Helping students create a leadership identity is also fundamental to seeing the integration of leadership behaviors into practice (Clapp-Smith et al., 2019; Dugan, 2011; McKimm & McLean, 2020). With leadership development, it is necessary to consider students as adult learners and provide learning opportunities that are contextualized within their field of study and embedded in life experience (Brown, 2006; McCauley et al., 2017; Scott & Webber, 2008). To promote the integration of evidence-based

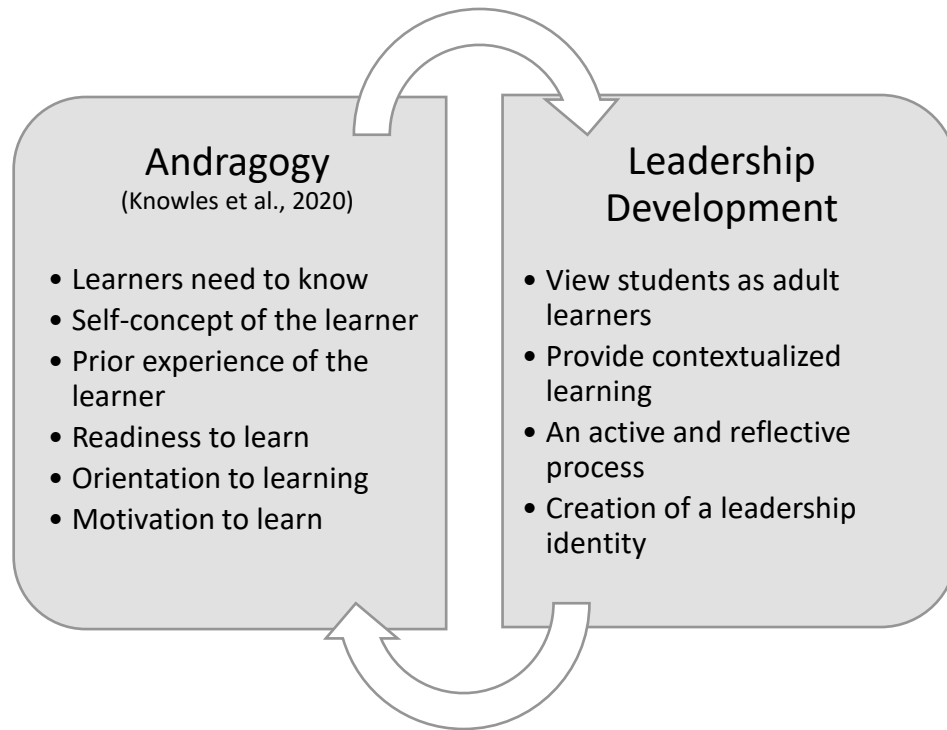
student leadership development strategies, occupational therapy educators may want to examine what theoretical lens guides their approaches in the classroom.

One learning theory, andragogy, is particularly congruent with the perspectives on teaching and learning techniques consistent with best practices in leadership development (Figure 4.3.1.). Andragogy, the theory of adult learning, is grounded in the understanding that adults have diverse life experiences they bring to the learning environment, they have a need for context to their learning, and they benefit from experiential activities that relate learning to real life (Knowles et al, 2020). Andragogy can be helpful in bridging the gap among students with various levels of life and leadership experience (McCauley et al., 2017). When applied to leadership education in occupational therapy, this theoretical lens could offer a way to connect leadership and contextualize it for the student within their own lives and within the profession. Andragogical approaches to leadership development may also help create meaning for leadership needs in occupational therapy practice.

**Figure 4.3.1.**

*A Comparison of Andragogy and Best Practices in Leadership*





There is very little literature available that evaluates leadership development strategies in occupational therapy, let alone the use of an andragogical lens to do so. Several articles provide theoretical discussions and preliminary findings regarding the use of leadership development models in occupational therapy education but often lack empirical evidence of their effectiveness (Lapointe et al. 2013; Liotta-Kleinfeld et al., 2018; Moyers, 2011; Townsend et al., 2011). In entry-level education, studies done in the field are mainly quantitative and explore student perceptions of leadership development through experiential and mentoring-related activities (Gafni Lachter & Ruland, 2018; Hendriks & Toth-Cohen, 2018; Recigno et al., 2020). Prior quantitative research completed by the primary investigator demonstrates that occupational therapy educators are average level in their andragogical facilitation of leadership (Recigno, 2022). No studies to date evaluate occupational therapy educators' perceptions of their approach to leadership education.

Questions arise about how educators approach leadership development for adult learners in occupational therapy classrooms and there is a need for clarity on why there is such limited literature on this topic. Exploration of the application of andragogical principles specific to leadership coursework could provide helpful context to understanding the current state of occupational therapy educational practices. Are occupational therapy educators aware of this learning theory and consider its application to leadership? Are educators using reflective experiential learning opportunities for leadership development that connect to real-life practice in occupational therapy? To understand some of these questions, it was first important to understand occupational therapy educators' perspectives on this topic. This led to the research question: What are the perceptions of occupational therapy educators on the use of andragogical principles for leadership development?

This question is important to answer so that researchers and educators can identify potential supports for using best practices for leadership development. It also highlights the lens which OT educators use to promote leadership development within OT education and provides insight into what is actually happening in the classroom. Ultimately, this can then help inform influential factors such as accreditation standards and the role they play in leadership development. More explicit standards related to leadership and language that promotes andragogical principles may serve to foster leadership development at a deeper and more sustainable level for the future.

### **Theoretical Lens**

An important aspect of this research includes soliciting the perspectives of occupational therapy educators on leadership. During the interviews, the primary investigator used an Appreciative Inquiry lens. Appreciative Inquiry “empowers stakeholders to leverage individual

and collective strengths, assets and successful past experiences” (He & Oxendine, 2019, p.221). This approach highlights educator and institutional strengths that support andragogical facilitation. It is important to acknowledge the research also used a hermeneutical phenomenological approach, which was necessary for this study. When investigating the lived experiences of occupational therapy educators using andragogy, the primary investigator acknowledges the assumption that andragogical teaching is integral to leadership education. This method allowed the primary investigator to embed these assumptions and biases in an explicit manner (Laverty, 2003).

### **Methods**

Derived from a previous quantitative study on andragogy and leadership education, this study sought to expand the understanding of how educators approach leadership instruction within entry-level doctoral occupational therapy education from their perspective. Phenomenological qualitative research aims to recognize individual experiences and contextualize the common meaning amongst those persons to describe the universal essence of the phenomenon (Creswell & Poth, 2018). For this study, the primary investigator used phenomenological interviews to solicit the viewpoints of occupational therapy educators on using andragogy when teaching leadership.

Participants for this study included educators who taught leadership in an entry-level doctoral occupational therapy program as identified through a search of the ACOTE school directory for accredited programs and those with preaccreditation and candidacy status (n=121). Participants were recruited through a survey completed as part of a previously completed quantitative study. They met inclusion criteria if they were occupational therapy educators involved in leadership course planning and content delivery under the 2018 Accreditation

Council for Occupational Therapy Education (ACOTE®) standards. At the end of the quantitative survey, participants were asked if they would be willing to be contacted for a follow-up interview. Those that selected “yes” then provided their contact information.

Of the 24 occupational therapy educators who agreed to participate in the interviews, 15 responded and were available to participate for a response rate of 62.5%. The participants varied in their clinical and academic experience, geographic location, and personal characteristics, and were representative of the landscape of occupational therapy academia (American Occupational Therapy Association, 2022) (Table 4.3.1).

**Table 4.3.1.**

*Occupational Therapy Educator Demographics*

<b>Characteristic</b>	<b>Category</b>	<b>Frequency</b>	<b>Percent</b>
Faculty Position	Full-time	13	86.6
	Adjunct	2	13.3
Terminal Degree	OTD	6	40
	PhD	7	46.6
	EdD	1	6.6
	Other	1	6.6
Gender	Female	14	93.3
	Male	1	6.6
Ethnicity	Black	1	6.6
	White	14	93.3
Region	Northeast	3	20
	Midwest	5	33.3
	Southeast	2	13.3
	Southwest	2	13.3
	West	3	20

Years of Experience as an OT	0-10	1	6.6
	11-20	4	26.6
	21-30	7	46.6
	31+	3	20
Years of Experience in Academia	0-5	4	26.6
	6-10	3	20
	11-15	6	40
	16-21	2	13.3

Participants were sent an email to schedule the interview and once a date and time were agreed upon, were then sent a meeting invitation with a link to the video-conference platform, Zoom, and a copy of the consent form for review. At the start of the interview, the primary investigator obtained verbal consent from the participant and verified their permission to record the session. Interview questions first solicited the occupational therapy educators' understanding of andragogy, how it was integrated into the classroom, and the theoretical perspectives highlighted within their leadership coursework. Next, using the Appreciative Inquiry lens, the primary investigator asked additional questions based on the high-scoring items from the Modified Instructional Perspectives Inventory (MIPI) used in the quantitative portion of the study. The MIPI is a measure of the perceived level of andragogical principles in teaching approaches (Henschke, 2016). The final question invited participants to share any additional thoughts on leadership education in occupational therapy. Appendix A provides the full list of questions used in the interview. Recordings from the interviews were downloaded into a secure folder on the primary investigator's computer. The recorded interviews were transcribed using a web-based technology, Otter.ai, deidentified, and were also stored in the secure folder.

Qualitative data analysis and coding followed an adapted method of Moustakas as presented in Creswell and Poth (2018). Using this approach, the primary investigator identified significant statements within the narrative information collected from the participants and then further grouped these statements into themes. Based on suggestions from Creswell and Poth (2018) when using Moustakas' method, the primary investigator went on to describe the “what” and the “how” related to the experiences of the participants using the themes and verbatim quotations (p. 201).

## **Results**

Several themes emerged from the data that highlight a shared insight amongst occupational therapy educators when considering the use of andragogy for leadership development. Rich conversations with textured descriptions revealed three themes around the following constructs: *Educator Attributes of Leadership*, *Designing Intentional Learning Experiences*, and the *Occupation of Work*. Each theme has subthemes that help provide greater context and understanding of the dynamic exchange of the “what” and “how” within Moustakas' approach to data analysis. Deidentified quotes from educators are used in this section to capture the essence of the discussions around andragogy in leadership education.

### **Educator Attributes of Leadership**

Occupational therapy educators have diverse experiences from their engagement in the profession and in the classroom. With this, they bring a unique perspective to the learning environment with influences ranging from something that happened that day or decades ago. The interviews revealed that the personal attributes of the educator are often used as a tool to help guide student learning in leadership development. This came in the form of authentic encounters and promoting a leadership identity within the occupational therapy classroom.

### ***What: Authenticity***

The words *humility* and *vulnerability* came up in almost every interview with the occupational therapy educators. They felt it was important to show students that they, as educators, are human beings who make mistakes and are not always right. Many educators gave examples of times when they shared stories where things did not go well and how they handled that situation. One educator said, “I also try to admit when I am wrong, I think it’s important for leaders to admit when they are wrong, or they don’t know the answer, but to do it and not in the ‘I’m giving up fashion’ but to do it in an ‘I’m not right’, ‘I am wrong’ or ‘I don’t know, but I am going to seek out how I can either fix it, or I’m going to seek out information so I can learn it’. I think it’s almost like being humble is important and knowing [or] acknowledging you don’t know everything”. The educators shared that students often think they need to know the right answer all of the time and these authentic experiences help to normalize that not knowing things is okay, that mistakes do happen, and that there is a way forward. In the context of leadership, the educators emphasized this approach provides a safe space for trial and error of leadership skills and behaviors knowing that perfection is not required.

### ***How: Reframing Leadership Identity***

Educators articulate an understanding that they are modeling leadership for their students. Through their actions in the classroom, such as using authentic moments or sharing their own leadership journey, students can start to recognize what leadership can look like in its various forms. Leadership identity varies for students and educators recognize that many students do not always perceive themselves to be a leader. “I think students don’t really see themselves as leaders, I think they’re students, I think they don’t perceive themselves as really being leaders or leaders in the profession in any kind of way yet because they’re just so young and they’re just

getting started”. Some of this comes from the students’ perspectives of what it means to be a leader and their own past experiences in leadership. Educators acknowledge that often students only think about leaders as managers or persons in a position of power, and do not reflect on what it means to lead in everyday situations.

Some educators also hold this perception that students are not yet ready to be leaders and that practice experiences are needed for leadership development. However, other educators want their students to feel as though they are leaders from the start, even within fieldwork environments. It is about reframing this idea of leadership identity, that leadership can happen in the small moments and to affirm it does not require a position of power. It is taking personal experiences of the students and helping them to see how their past and present leadership roles translate to that of occupational therapy practice. “[It’s] really important for us to make sure we are seeing ourselves, as you know, the important healthcare providers we are in the team and I think a lot of the traits that we have are very foundational to good leadership.” Educators play a role in explicitly modeling what this looks like, helping to reframe leadership identity into the everyday behaviors occupational therapists employ to influence and exert their position to achieve positive outcomes. Adult learning is supported by incorporating students’ prior experiences into a reframed context of leadership. Educators also use additional classroom strategies to support leadership development for occupational therapy students.

### **Designing Intentional Learning Experiences**

The learning environment created by occupational therapy educators is a carefully curated experience that aims to build knowledge in the skills and professional behaviors needed for occupational therapy practice. Educators use various strategies to meet accreditation requirements, deliver the program’s curriculum design, and support the unique learning needs of



the students. The learning environment is often dynamic and promotes the intersection of multiple perspectives around leadership.

***What: Influence of ACOTE Standards***

Approaches to leadership development are heavily influenced by the profession's accreditation standards. Almost every participant in this study discussed how the Accreditation Council for Occupational Therapy Education (ACOTE) standards direct the development of leadership instructional objectives within their course. Many educators start with these standards to guide their approach to leadership education and to identify key features of leadership intrinsic to the profession. But they also reveal they can feel overwhelmed with needing to cover the depth of standards presented. "With so many ACOTE standards to get to; and I think those softer skills, those conflict skills, we need to spend much more time in and I don't feel like with all of the standards and all the things we need for entry-level it's a realistic expectation; I think we have to have clear standards on what leadership is expected for entry-level status versus professional levels". Others feel that leadership standards need to be more nuanced with specific skills and strategies for leadership development that could help better guide educators to facilitate student and practitioner leaders. "I do think that there should be more of like, a ladder or a hierarchy of types of leadership that are a part of the ACOTE standards". Accreditation standards play a key role in the types of learning experiences provided by occupational therapy educators and require thoughtful instructional design.

***How: Building the Bridge to Adult Learning***

Occupational therapy educators identified the unique challenge of welcoming adult learners into the classroom to learn a new profession. Participants frequently discussed the need

to help students transition from traditional pedagogical approaches often used in undergraduate education to a more complex way of learning information that is more related to critical thinking, professional reasoning, and leadership development. One educator noted, “I want them innovative, I want them collaborative, and I’m moving them out of rote learning and brainstem levels, and that they have throughout undergraduate school”. Educators acknowledge the need to help students make connections with what they are learning in regard to leadership and provide context for why leadership development is needed within the occupational therapy curriculum. They also provide the opportunity for students to anchor this new knowledge in the context of their own lived experiences. “[The] leadership course is, for lack of a better term, convincing them that their previous experiences – they’ll acknowledge that they have those – that those previous experiences have value and are relevant to what you’re trying to teach”. Consistent with adult learning theory, the participants often spoke of the importance of identifying the students’ motivation and highlighting the significance of the course content in relation to their motivation for becoming occupational therapists.

### ***How: Intentional Safe Learning Experiences***

While some educators acknowledged the need to use PowerPoint presentations to teach leadership material, most articulated innovative strategies designed to provide relevance and orientation to learning about leadership. The leadership course structure was often described as non-traditional, using seminar-style classes, flipped classrooms, learning leadership in a lab environment, and moving learning outside of the classroom to community-based experiences. “Didactic doesn’t necessarily work but that you have to use multimodal ways of delivering that content”. Activities ranged from discussions, case-based experiences, panel guest speakers, and several examples of integrating community work and fieldwork. One educator said they use

“very community-based programming and so the students get out there and do some things that are servant leadership based and then come back and talk about their experience, ropes course, case-based scenarios, throughout the class are real scenarios that come from my own experience, experiential learning component - they’re actually doing things that matter for people”.

More importantly, many educators emphasized the critical need of creating a safe environment for learning. One educator stated that they “provide a context; on the first day, this is a safe space”. Leadership topics can be sensitive and require critical reflection and introspection. An educator emphasized an “open and inclusive and supportive and encouraging environment that’s the learning environment, our learning community, trying to break down the power dynamic between, you know, the faculty and students is a really important thing to do”. Another highlighted “students as knowing they are in a safe space and learning space should be safe, it’s supposed to be a safe space. It’s supposed to allow them to experiment and learn and trial and error things. Role-playing at a very basic thing, I am a big fan of experiential learning”. These intentionally created learning environments support the adult learner in many ways. Not only by getting the education they need to be an occupational therapist but in a contextualized way, showcasing the importance of naturalistic experiences while fostering psychological safety.

### **Occupation of Work**

Teaching leadership is an important component framed within occupational therapy educators’ occupation of work. Work within the context of occupational therapy educators’ job performance and maintenance requires the provision of leadership and supervision, seeking and responding to feedback on performance, and managing relationships (American Occupational Therapy Association, 2020). Educators during the interviews articulated ways in which they approached their occupation of work to maximize their performance.

### ***What: Co-learning***

Occupational therapy educators acknowledge that intrinsically there is a power dynamic that exists between teacher and student. When using an andragogical approach, the educators explicitly acknowledge in their classroom that students have significant life experiences and they have much to share that adds value to the class. One educator said, “I acknowledge them as co-learners, they have a lot to offer me and I establish that right off the bat; we want to hear their voices and that their voices are valued; giving them confidence as co-learners”. Another noted, “we got to get better at it as recognizing our students have just as much to teach us as we do them; [saying to them] I believe you bring a unique gift to this profession, classroom”. By recognizing students as adults with the potential to contribute in a meaningful way, occupational therapy educators aim to create a sense of belonging both within the classroom and within the profession. Managing the relationships in this way, there is an attempt to diminish the unspoken hierarchy that exists within graduate education and emphasizes the mutual exchange of learning that can occur between educator and student.

### ***How: Respect, Empowerment, and Reciprocity***

The concepts of respect, empowerment, and reciprocity were some of the most frequently discussed ideas in the interviews with occupational therapy educators. Educators provide the opportunity for reciprocity in the classroom by demonstrating respect for the diverse roles occupational therapy students hold, connecting that to leadership, and creating space for the sharing of these perspectives. One educator noted, “in terms of value and respect of human beings, where they are and the various roles they may have, and so I value that as much as I value the people they are in their other roles”. This also comes in the form of the occupational therapy educators recognizing students’ role as “future colleague” as seen with this statement:

“A leader needs to respect the people they are leading no matter where they come from, what their background is, ethnicity, sexual orientation, anything like that; they are adult learners, and that we are more going to be future colleagues versus teacher-student role”. This approach empowers students to see their ability to contribute even within their current roles before they enter practice.

Educators emphasized the importance of teaching and learning side by side with students. This reframing of the educator-student relationship embodies core principles of servant leadership, which was identified by almost every educator as one of the primary leadership theories covered in their class. Servant leadership and empowerment is reflected in this educator’s comment stating, “it’s been really interesting; the biggest thing is you have to be willing to lift people higher than you are right, you have to lift them past where your successes have been in order to take the organization to the next level; even if a response is, like, way off, right? I’ll find a way to make it seem like it works – but there might be something we can add to it because I feel like it’s really important to validate students, so let them know that there are other ways to think about that but the shaming and all that kind of thing is just not that’s not how adult learners don’t learn that way.” Educators also encourage their students to share feedback on their learning experience. This is illustrated by one educator’s comment, “I think to build relationships you have to be vulnerable – you have to have reciprocity; so, this is very nurturing, you know, mutual again, reciprocity, accountability is so important for me in the classroom”. Another stated, “I say my personal style is collective leadership and the culture is built on that so we are equal players here; just so let them have a voice”. Educators provide opportunities and structure the learning experience to demonstrate their respect for the learners and acknowledge and encourage an exchange of knowledge and life experiences.

## Discussion

This study sought to understand occupational therapy educators' perceptions of the use of andragogical principles in leadership education. Findings reveal a transactive relationship amongst these perceptions with the educator's intrinsic qualities impacting the environment they create for leadership education and development. Andragogical approaches are not explicit but can be seen woven into these educators' approach to teaching leadership in a way that values and integrates students' life experiences while contextualizing their learning to occupational therapy practice. Educators help shape students' perspectives on leadership, not only through the lessons they teach but also in the way in which they model leadership.

While both students and faculty alike can feel that students are not ready for leadership, this should not dissuade leadership development. Leadership development occurs on a continuum and is never finished, but it needs to start somewhere and be built upon throughout the educational experience. Dugan (2011) emphasizes that effective leadership development happens over time and with supported learning experiences. Andragogy used in this perspective grounds learning in a relevant context for the student and acknowledges the important life experiences they bring to support their leadership journey (Knowles, 2020; McCauley et al., 2017). As with any new learning, educators do not expect immediate competency but rather incremental growth in skills and behaviors when given the opportunity for practice and reinforcement. This growth mindset can provide positive reinforcement to leadership development and support motivation for continued capacity building (Jeanes, 2021). It can feel overwhelming to consider taking on the role of leadership, but if OT educators can help students see the path ahead— it can feel much more achievable to show up as a leader. They can also do this by demonstrating what it means to be an authentic leader. They showcase the human side of

occupational therapy practice; practitioners who are not infallible but are resilient and can move forward from missteps. Role modeling these behaviors is a powerful tool and a means to influence students' potential for growth (Charungkattkul & Henschke, 2018). By educators sharing their authentic journey and unique leadership identity, students can by proxy envision what leadership might look like for them.

It is important that OT educators are helping students to form a leadership identity, one that acknowledges their current skills and abilities and their ability to act as a leader within their current context. Occupational therapy educators can also support their students in developing a leadership identity that begets lifelong learning. Students can come to recognize that their unique past, present, and future life experiences will guide their path to leadership development (Clapp-Smith et al., 2019). One occupational therapy educator offered a poignant perspective on this and said, "if we don't acknowledge where [students] came from, how are we going to get them to where they are going?" Acknowledgment of the self-concept of the student and their prior experience lends an andragogical lens to leadership instruction. The occupational therapy educators who participated in this study articulated many different strategies to curate learning experiences that support this andragogical approach when teaching leadership.

The ACOTE standards contribute substantially to content being taught in occupational therapy programs, and the profession needs to focus attention on how these standards frame leadership. Interviews with the educators reflect that there needs to be greater breadth to the descriptions of leadership; that span the complexity of this mindset and not limit the explicit scope to management. Despite limited direction from the ACOTE standards, occupational therapy educators still strive to make learning leadership dynamic and attainable for students who may not wish to be future managers. Moreover, scaffolded learning in an intentional

environment allows students to try out their skills in a supported space. Moving from pedagogy to andragogy can foster confidence building in leadership. Experiential learning opportunities empower students to reflect upon their lived experiences and that no matter the level of leadership experience they have, formal or informal, they bring value to the classroom, their clients, and the profession. Occupational therapy educators' emphasis on the creation of a safe space embedded with a practical, real-life learning focus has the potential for greater transformative learning (Trechsel et al., 2021). Educators may want to consider whether they can truly create a "safe" space, and instead explore the creation of a *brave space* to support students in expanding their views and dialogue around leadership with a critical lens (Ryujin et al., 2016). Consistent with andragogical theoretical approaches, embedding leadership education into the context of occupational therapy practice provides meaning and orientation to students' learning that will support leadership activities in the future.

Occupational therapy educators play a critical role in student development and it is in their primary occupation of work that they can have an impact. Job performance and maintenance in their educator role include creating, producing, and distributing leadership learning opportunities for their students. They must also manage their relationships with the students who could be seen as "customers" but often reflected in the discussions are seen more as future "coworkers" (American Occupational Therapy Association, 2020, p. 33). Occupational therapy educators in this study emphasized the importance of co-learning alongside their students, emphasizing that they had as much to learn from the students as they had to share in occupational therapy knowledge. This comes from a deep level of respect, seeing the students as the adults they are, and engaging in reciprocity with the learning process. In this way, occupational therapy educators provide feedback but also seek out feedback on their



performance and remain open and humble to varying perspectives. Occupational therapy educators provide leadership to their students by modeling the behaviors and skills and empowering those students to demonstrate leadership in a way that is approachable and meaningful to them. Using an authentic empowerment framework for leadership development can be seen reflected in nursing literature, suggesting the importance of navigating individual assets and contextual factors (Doherty & Hunter Revell, 2020; MacPhee et al., 2012).

There are many conversations around leadership in doctoral occupational therapy education and there needs to be more. Some individuals question the need for a doctorate and so far, there have been few outcomes to demonstrate the efficacy of this shift. One educator summed up many of the questions that plague the profession as to why we keep striving for the next degree level, first with the mandate to the master's, and then most recently to the doctorate. She stated,

One of the reasons for doing that was because we needed to be at the table. That's the reason we're talking about the table... we switched our degree to try to get to the table, but you know we still didn't get to the table yet. So right, what's that missing piece? Let me just assume that because we were now coming out at this level of degree or that level of degree that would automatically include us and what I know from personal experience is that you don't get invited you just show up.

Leadership education has the potential to empower students to invite themselves to the proverbial table and to advocate for and advance the profession to meet the needs of ever-evolving healthcare and society. This study revealed that occupational therapy educators use many principles of andragogy to contextualize leadership for occupational therapy students.

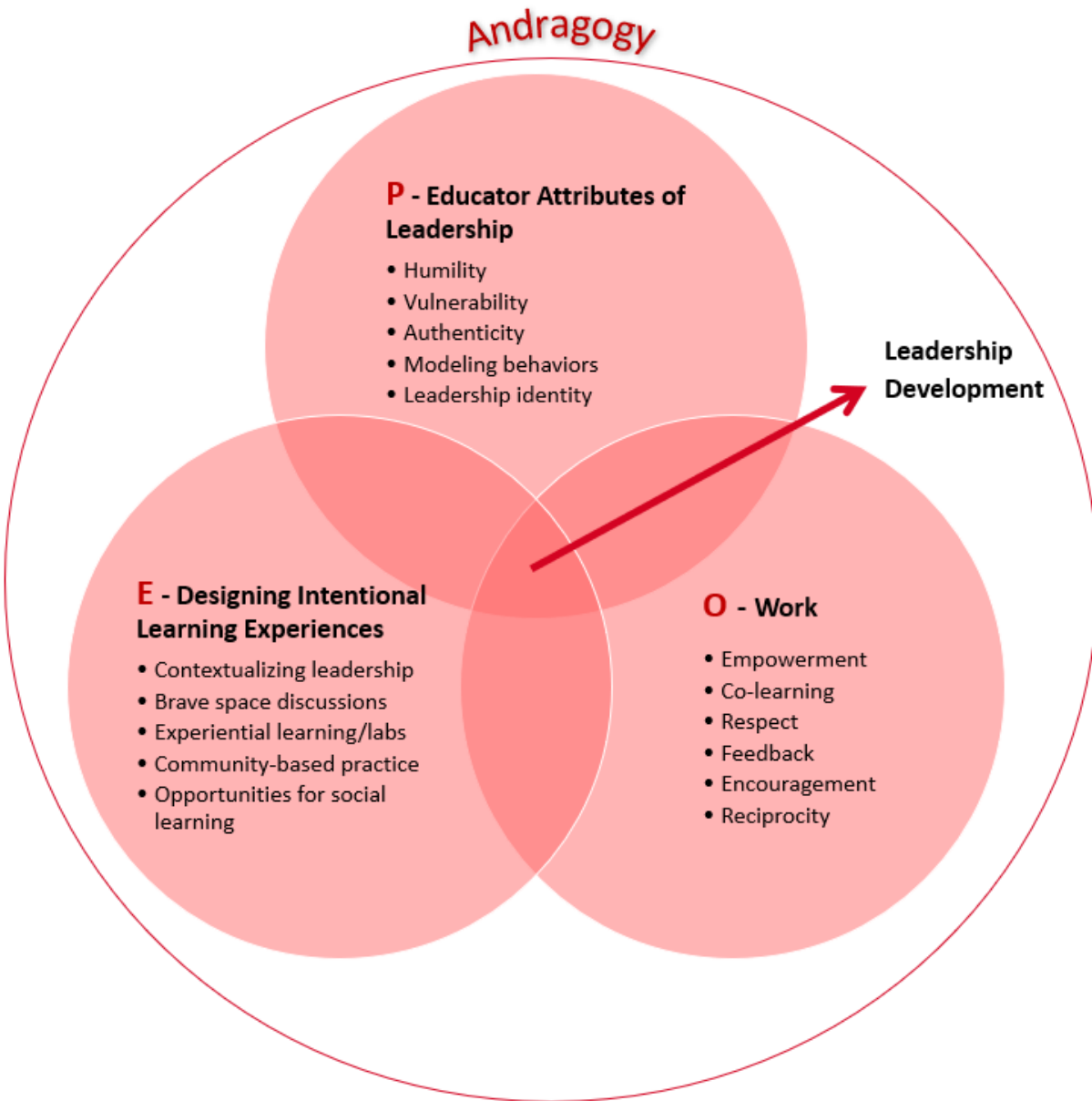
### **Implications: A Framework for Leadership Education**

Occupational therapy educators may benefit from a framework in which to use when designing a more holistic, andragogical leadership learning experience. When looking to develop

leadership within adult learners, educators may want to look at the transactive relationship between their personal attributes of leadership, the environment they create for leadership learning, and the occupation of work that drives and gives form to their activities. The findings of this study can be applied to the concepts of the Person-Environment-Occupation (PEO) model, providing a lens for occupational therapy educators to analyze their performance in leadership development (Figure 4.3.2.). The PEO model emphasizes that the intrinsic characteristics of the person interact within an extrinsic environment anytime an occupation is performed with the outcome being occupational performance (Law et al, 1996). Law goes on to assert that congruence amongst these three constructs results in optimized occupational performance. Assessing and acting to maximize the fit between these three components can help to support occupational performance in leadership development. Rodger (2012) affirmed the importance of using an occupational lens to ensure a modern focus on leadership. Occupational therapy educators can use this framework to guide their approach to teaching leadership within formal coursework. They can also consider how this framework could support other activities such as student and club advising, mentoring new faculty, or other roles within the academic context in which they work.

**Figure 4.3.2.**

*Leadership Development Within an Andragogical Lens as Shown Through the PEO Model*



### **Limitations and Opportunities**

As with any study, there were some limitations to capturing the most robust picture of perceptions of andragogy in leadership education. Deriving interview questions from the Modified Instructional Perspectives Inventory may have provided a narrow scope of what andragogy can look like in the occupational therapy classroom. Exploration of other tools or

more broad questions may have elicited a more organic response from the educators. However, some educators did not have a full awareness of the adult learning theory of andragogy and may have benefited from the more structured questions that used examples of central andragogical tenets. Additionally, this study was derived from a previous quantitative study that focused only on entry-level doctoral programs. This narrow perspective fails to capture the broad picture of leadership education in occupational therapy including master's programs and occupational therapy assistant programs. Future research could explore replicating this study with those populations and evaluating key similarities or differences in how leadership education is approached based on degree offerings and accreditation standards.

## **Conclusion**

Educators revealed perspectives on leadership development highlighting several approaches consistent with the core principles of andragogy. They frequently considered the needs of the learner related to their self-concept, their previous life experiences, their readiness and motivation for learning, and the process and context of leadership development. More so the educators demonstrated that while they have unique knowledge and perspectives to share with the students, learning is a reciprocal process meant to empower students as future colleagues ready to engage in leadership here and into the future. This is pivotal for occupational therapy educators to create leaders who are ready to tackle current and emerging practice challenges and support the growth and sustainability of a profession that has so much to offer.

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## Appendix A

### Qualitative Interview Questions

\*\* The qualitative interview questions are based on high scoring factors on the *Modified Instructional Perspectives Inventory* (MIPI; Henschke, 2016). All scores were 4.5 and above.

#### Overall Questions:

1. What is your understanding and/or perception of the adult learning theory of andragogy? **(If participants are not familiar with the term *andragogy*, the primary investigator will provide a brief definition and state, “Andragogy, the study of adult learning, provides a lens that considers the unique experiences and motivations adult learners bring to their educational context (Jeanes, 2021; Knowles et al., 2020; McCauley et al., 2017). Six principles highlight the unique needs and considerations of adult learners: Learners need to know, self-concept of the learner, prior experience of the learner, readiness to learn, orientation to learning, and motivation to learn (Knowles et al., 2019).)**
2. What are some of the challenges you face when using an andragogical approach to teach leadership and how do you overcome these factors?
3. In what ways do you model leadership for your students?
4. What leadership theories do you most often teach or use? Why?  
**(If participants are unfamiliar with leadership theories, several examples will be provided, such as trait theory, servant leadership theory, transformational and transactional leadership theory, and authentic leadership theory).**
5. Is there anything else that you think is important to share about leadership development in occupational therapy? *(Last Question)*

#### Questions Based on the MIPI (with associated scores):

**(if questions arise around the MIPI questions, the investigator will remind the participant that they should answer based how they perceive the question.)**

6. In what ways do you “respect the dignity and integrity of the learners”?
  - a. Question 45 - 4.91
7. How do you “express confidence that learners will develop the skills they need” in leadership?
  - a. Question 8 – 4.82
8. What strategies do you use to “establish [leadership] instructional objectives”?
  - a. Question 22 – 4.76
9. Tell me about the “variety of teaching techniques” you use to teach leadership. What types of instructional media do you use?
  - a. Question 1 – 4.73
  - b. Question 23 – 4.64
10. In what ways do you “believe that learners vary in the way they acquire, process, and apply subject matter knowledge”?
  - a. Question 14 – 4.71
11. Some educators get “bored with the many questions learners ask”. What is your perspective on this?
  - a. Question 36 – 4.70
12. How do you “really listen to what learners have to say”?
  - a. Question 15 – 4.55
13. In what ways do you “encourage learners to solicit assistance from other learners”?
  - a. Question 17 – 4.55
14. How do you “develop supportive relationships with your learners”?
  - a. Question 43 – 4.52

## **Chapter 5 General Discussion and Conclusion**

### **Introduction**

Leadership is an important construct in the field of occupational therapy yet little has been done to study how this is developed in occupational therapy students and practitioners. The aim of this study was to determine how occupational therapy educators approach leadership education and whether their methods are consistent with the needs of adult learners. The research from this dissertation yielded three articles that help shape an understanding of leadership development in occupational therapy. The first article provided a concept analysis of leadership development, summarizing the landscape of publications and offering a conceptual definition of what leadership development means to the field.

The findings of the concept analysis led to a mixed-methods explanatory sequential designed study to further evaluate how occupational therapy educators in doctoral entry-level education develop leadership and resulted in articles two and three. An explanatory sequential design study starts with quantitative methods which then informs qualitative inquiry (Creswell & Plano Clark, 2018). The qualitative study surveyed occupational therapy educators in entry-level doctoral programs to determine the level of andragogical facilitation they use when delivering leadership-related content. The survey collected demographic data and also asked the educators to complete the Modified Instructional Perspectives Inventory (MIPI) by Henschke (2016). The high-scoring items from the MIPI informed qualitative interview questions to further elicit an understanding of the occupational therapy educators' perspectives on using andragogical approaches in leadership education.

This final chapter will offer a summary of each study and provide an overall integration of the results consistent with best practices in mixed-method studies. This discussion and

integration aim to provide a succinct and high-level response to the dissertation research question. Additionally, this chapter will identify strengths and limitations that played a key role in the study and suggest future directions of subsequent research. A discussion of the implications for education and practice will contextualize the findings within occupational therapy. The chapter will conclude with the major findings of leadership education in entry-level doctoral occupational therapy through an andragogical lens.

## **Summary and Integration of Research**

### **Summary of the Concept Analysis**

A concept analysis provides important context for the study, as the premise of the study is situated on how occupational therapy educators approach leadership development in the classroom. A principle-based concept analysis methodology, as described by Penrod and Hupcey (2015), was used to offer a historical perspective in addition to determining the current. It is first important to understand what is meant by the term *leadership development*. The focus of the concept analysis was to conduct a review of the historical and contemporary occupational therapy literature to evaluate how the profession distinguishes the concept of leadership development. The occupational therapy literature is scant in its discussions on leadership development with brief mentions in the 1980s and 1990s leading to a more robust presence in the last 20 years. A total of 69 articles were analyzed for the concept analysis. Dialogue about leadership development was primarily situated in gray literature, such as magazines, with few articles found in empirical-focused, peer-reviewed journals.

There are unanswered questions as to why there is a limited focus, but what was available for review had fairly consistent themes. Epistemologically, leadership development was found to be understood as both a process and an outcome. It is one that requires engaged “doing” of

the activities and behaviors associated with leadership. There was also an emphasis on the social aspect of leadership development and the need for mentoring experiences as both the mentor and the mentee. Various contexts for leadership development were identified and included professional practice and educational venues.

Language around leadership development was fairly consistent however there was a tendency to frame this concept around the term *capacity* as well. This connects with the overall understanding that leadership development is intended to support the promotion of the profession. The concept analysis revealed similar ideas within the literature but did not yield one cohesive definition of leadership development. Therefore, a definition was proposed that integrated the various perspectives with the intention of supporting future empirical research around a centralized understanding of the concept. The need for greater empirical research on leadership development directly supported the importance of conducting the mixed-method study on how occupational therapy educators approach leadership education in entry-level doctoral programs.

### **Summary of the Quantitative Phase**

The purpose of the quantitative study was to describe to what degree occupational therapy educators use methods consistent with the adult learning theory, andragogy, to teach leadership concepts. Additionally, the secondary purpose was to explore if there were any personal factors of the educators that influenced the extent of the integration of this theoretical approach. The research questions used to guide this study were:

- What level of andragogical teaching do occupational therapy educators use to teach entry-level doctoral leadership accreditation standards?

- What factors influence andragogical teaching in occupational therapy educators teaching leadership?

The data was collected using a Qualtrics (<https://www.qualtrics.com/>) survey that was sent to the program directors of the entry-level doctoral programs with a minimum of candidacy status. The survey consisted of a demographic questionnaire and the 45-question Modified Instructional Perspectives Inventory (MIPI), which is a measure of the level of andragogical facilitation (Henschke, 2016). 34 educators completed the survey out of a possible sample size of  $n = 121$  for a 28% return rate. Occupational therapy educators from across the country participated and were a similar representation of the demographic makeup of the occupational therapy profession (American Occupational Therapy Association, 2022). The descriptive data from the MIPI score revealed the mean score for the participants was 179.88 ( $SD = 9.43$ ), which is an average level of andragogical facilitation. Explanatory data using multiple regression analysis and correlation analysis showed no relationship between the occupational therapy educators' personal characteristics and the MIPI score.

Based on factor scores of the MIPI, which breaks down the composite score, the results revealed some possible reasons for the average level of andragogical facilitation. High-scoring items such as *teacher empathy with learners and teacher trust of learners* are consistent with the approach occupational therapists often take with their client relationships (Wong et al., 2020). Other factor scores, such as the *teacher-centered learning process* identified the possible role accreditation standards play in how occupational therapy educators approach content in their classroom, potentially leaning towards prescriptive activities to ensure the standard is met. This may have contributed to a moderate integration of andragogy, attempting to balance accreditation standards with the unique learning needs of the adult students in the classroom.

These suppositions led to the need for a qualitative inquiry to obtain the perspectives of educators on using an andragogical approach to teaching leadership in the classroom.

### **Summary of the Qualitative Phase**

Within the explanatory-sequential design, the second phase of the research was the qualitative study. The qualitative portion of this dissertation sought to further illuminate the educators' perspectives on the methods used to teach leadership within their educational context. This led to the following research question: What are the perceptions of occupational therapy educators on the use of andragogical principles for leadership development? As part of the mixed-methods design integration, the high-scoring items of MIPI in the quantitative study were used to develop the interview questions to solicit this understanding. The interviews were 30-60 minutes in length and were completed using the web-conference platform, Zoom, with one interview taking place over the phone.

Participants for this study included 15 occupational therapy educators from the quantitative study who agreed to participate in the interviews. Similar to the quantitative study, these persons were representative of the demographics of occupational therapy educators in the United States (American Occupational Therapy Association, 2022). Moustakas' approach to data analysis was used to identify the "what" and the "how" within emerging themes (Creswell and Poth, 2018, p. 201). Three predominant themes revealed educators' perspectives on andragogical teaching with relevant subthemes coordinating with the data analysis methodology (Table 5.1).



**Table 5.1***Themes and Sub-Themes Of Perceptions On Andragogical Approaches To Leadership Education*

Themes	Subthemes
Educator Attributes of Leadership	<b>What:</b> Authenticity
	<b>How:</b> Reframing Leadership Identity
Designing Intentional Learning Experiences	<b>What:</b> Influence of ACOTE Standards
	<b>How:</b> Building the Bridge to Adult Learning
	<b>How:</b> Intentional Brave Learning Experiences
Occupation of Work	<b>What:</b> Co-learning
	<b>How:</b> Respect, Empowerment, and Reciprocity

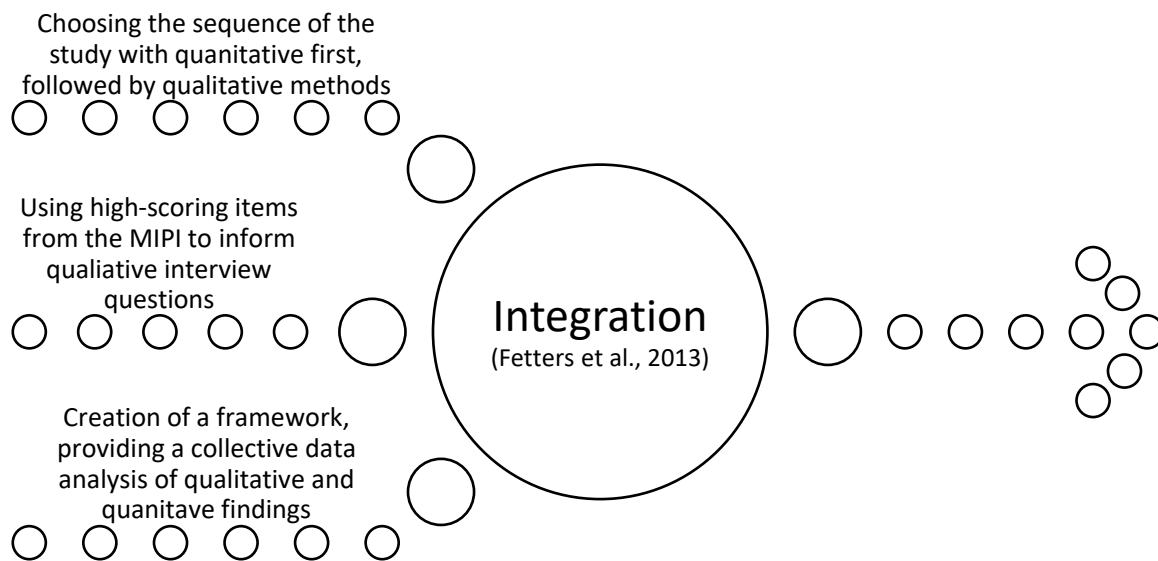
The data from the interviews showed that educators’ perspectives on leadership development in entry-level occupational therapy education were dynamic and transactional. The educators brought their individual life experiences to their teaching and helped frame what leadership looks like within the occupational therapy context. Their personal characteristics provided important social learning opportunities and created an environment that supported scaffolded, meaningful, and contextualized learning. Occupational therapy educators clearly articulated perspectives that outlined role responsibilities within their occupation of work, including the importance of feedback, providing leadership, and managing their relationships with students (American Occupational Therapy Association, 2020). Frequent use of words such as “vulnerable”, and “humble” demonstrated an authentic relationship with students and one which sought to empower leadership development within the classroom.

## Integration of the Quantitative and Qualitative Findings

The outcomes of the quantitative and qualitative studies are not intended to stand alone. Integration is an important element of mixed-methods designs (Fetters et al, 2013). The study design provided for integration at multiple levels. While the results of the mixed-methods study were separated into three distinct papers, there were intentional steps taken to ensure integration was not *quasi-mixed* when reporting the quantitative and qualitative separately (Teddlie & Tashakkori, 2009). Figure 5.1 outlines the intentional integration that occurred with this research.

**Figure 5.1**

*Three Levels of Integration Within the Mixed-Methods Research Design*



The concept analysis revealed that leadership development in occupational therapy is not often empirically studied but nonetheless is valued as an important aspect of occupational therapy education. Results from the analysis indicated the profession's perspective on leadership development included the importance of social learning and engagement in leadership activities. This led to the quantitative study to determine if occupational therapy educators use an

andragogical approach to teaching leadership, which would include active and engaged learning strategies facilitated by the instructor. While the quantitative study revealed the educators to be average in their use of andragogical methods, more information was needed to understand this perspective. Questions from the qualitative study were used to inform the qualitative interviews. These interviews shed light on the important balance of ensuring accreditation standards are met while also scaffolding leadership learning in a way that best supports the student in their occupational therapy educational journey.

The results of all three components of the dissertation were used to develop a framework to support leadership education in occupational therapy. Using the occupational therapy model, Person-Environment-Occupation (PEO), the framework acknowledges the complex interactions between personal characteristics and the environment when educators teach with the ultimate outcome being occupational performance or specifically leadership development. Personal characteristics of the framework ask the educator to consider their leadership identity and how they bring their authentic self to their teaching. Environmental factors focus on the intentional learning activities selected to meet the needs of adult learners contextualized with the field of occupational therapy. The occupation in this model is *work*; as occupational therapy educators are typically engaged in this particular occupation when teaching leadership in an entry-level program. When using the framework, educators should aim for congruence among these three areas to promote the efficacy of leadership development in occupational therapy students and within themselves. As indicated in the concept analysis, leadership development often begets leadership development.

## **Strengths and Limitations**

One of the major strengths of the study was the mixed-methods design. A mixed-methods approach addresses inherent limitations in either the quantitative or qualitative design by offering complementary data. Mixed methodologies also influence limitations, as limitations in one method can influence limitations in the other method when using integration strategies. In this study, the quantitative score of andragogical facilitation was further explained by a qualitative approach soliciting the educators' perspectives on how they used andragogical approaches in the classroom. Despite the overall strength of the mixed methods design, each study had its individual strengths and limitations.

A primary strength of the concept analysis was the selected method of the principle-based approach. Principle-based concept analyses provide a more holistic understanding, including a historical lens when evaluating the strengths and limitations of a concept within a profession (Penrod & Hupcey, 2005). This yields a deeper understanding of the concept and provides context for the evolution to the current state of the evidence. The strengths of this approach do also contribute to limitations. A more complex approach, using a principle-based concept analysis can be a more tedious and challenging method for researchers. Another main limitation of this approach is not highlighting a case example as consistent with other methods such as Rogers' and Walker and Avant's concept analysis procedures (Rogers, 2018). Because leadership development is such a personal and contextual process and outcome, providing a case example may limit the scope of potential for individual leadership development within the occupational therapy profession.

A primary strength of the quantitative portion of the study was its contribution to empirical research to the body of leadership development literature in occupational therapy.

There is such limited evidence available on this topic and therefore it was helpful to start with a descriptive study to determine how educators are approaching the important concept of leadership education. Using a reliable and validated measure of andragogy, the Modified Instructional Perspectives Inventory (MIPI), provided strength over the use of a researcher-designed survey that may not have best understood andragogical perspectives. This conversely could have been a limitation, as additional evidence is still needed to support the rigor of this instrument and its applicability to occupational therapy education. The main limitation of the quantitative study was the sampling method and size. The primary investigator chose to limit the sample size to entry-level doctoral education and excluded occupational therapy entry-level master's programs and occupational therapy assistant educators. Portney (2020) identifies a typical survey response of approximately 30%, which was consistent with the results of this study. Therefore, by limiting the scope to entry-level doctoral programs, the sample size was not sufficient to power the study and limited generalizability.

Using a follow-up qualitative study to complement the data of the quantitative added strength to the study where there was not sufficient power. Outcomes from the quantitative study were substantiated with a more robust understanding of the data from the educators' viewpoints. Qualitative rigor was met with 15 participants and data saturation was achieved. Again, the sample contributes to study limitations as this robust analysis only applies to entry-level doctoral educators and may not reflect leadership development strategies for all occupational therapy educational programs. Additionally, the interview questions were developed from the MIPI, which could have limited the scope of educator discussions to the viewpoint of this tool.

## **Implications for Research, Education, and Practice**

Often after conducting research, the results and discussion lead to a need for further inquiry or action taken in response. A good study should outline the next steps to expand the topic area under investigation (Kegler & Allegrante, 2016). After conducting research in the context of occupational therapy education and leadership, there are three areas in which implications arise: research, education, and practice.

### **Implications for Research**

This study aimed to advance the literature on leadership development by describing what is happening in entry-level doctoral education. To build off of this research, there are several key areas that will benefit from additional empirical research to advance the understanding of leadership development in occupational therapy. A critical first step is to identify a shared definition of leadership, leadership behaviors and skills, and leadership development. Current leadership perspectives vary widely in scope, making it difficult to conduct systematic research on leadership in the profession and education. Ross et al. (2021) cited a similar problem in medical education, leading to inconsistent delivery of leadership competencies and an absent process for evaluating leadership education outcomes. More research is also needed that captures the diversity of leadership experiences that exist for occupational therapy students and practitioners. Leadership and leadership development can be such an individual perspective and need and so it is important to normalize this idea. Leadership development is not ubiquitous, so different approaches and experiences need to be shared. Similar to what Dillon (2001) offered in his article on a model servant-leader, the occupational therapy profession could benefit from role modeling on what leadership looks like in different contexts.

Additional areas for future research include the need for efficacy studies and quality improvement analysis in occupational therapy education and practice to determine if current leadership development methods are effective. Recigno (2022) identified several tools for assessing leadership outcomes in education that evaluate changes in student perceptions and behaviors. Black and Ernest (2009) proposed a multi-faceted conceptual model, EvaluLEAD, to evaluate the outcomes of leadership development programs that could be applied to occupational therapy practice. There are many influencing factors for practicing occupational therapists that can promote leadership development and may not come from direct leadership development activities. It may be helpful to continue the work of Heard (2014) and conduct a formal inquiry with occupational therapy practitioners to better understand what contributes to their leadership behaviors and skills.

### **Implications for Education**

The results of this study shed light on the powerful influence that Accreditation Council for Occupational Therapy Education (ACOTE) standards have on leadership development in occupational therapy education. Educators identified how these standards guide their course content and delivery and shape the students' learning experience. The occupational therapy profession and accrediting body need to take a critical eye on these accreditation standards and consider making explicit the multi-facets of leadership that exist outside of the management sphere. There is an opportunity to frame leadership development consistent with the themes found in the occupational therapy literature, that leadership development is a social process that can promote the sustainability of the profession. Operationalizing that in the ACOTE standards will offer a consistent message to future occupational therapy practitioners of the importance of life-long leadership development.

Occupational therapy educators are tasked with teaching the complex concept of leadership development and this can feel like a very abstract task. Using the framework developed in this study could give structure for occupational therapy educators on how to teach leadership consistent with best practices in leadership development. This can also provide them with a lens to evaluate their occupational performance in their role as teachers. Frameworks are not intended to be prescriptive and are used more as a guide to offer direction while still allowing academic freedom (Lederman & Lederman, 2015). As previously discussed, this framework is not limited to occupational therapy education and can also be used to give support to leadership facilitators in practice.

### **Implications for Practice**

Leadership development needs to be a scaffolded process and should not stop with occupational therapy education. Dugan (2011) was clear that leadership development is something that takes time and experience to advance. The occupational therapy literature review and study outcomes indicate that not every student, educator, or practitioner feels that leadership is accessible. More is needed to provide a continuum of leadership learning that supports students, new practitioners, and on through career maturation. The profession needs to explore diverse methods of leadership development that use adult learning principles to contextualize leadership and meeting people where they are in their journey. And of course, collecting those outcomes on a small and large scale and highlighting the work being done in the leadership sphere is an important follow to that initiative. To promote additional learning opportunities, offering advanced certification or leadership credentialing could help prioritize this work for occupational therapy practitioners.



## Conclusion

Based on the findings of the three studies within this dissertation, the following conclusions are evident:

- The concept analysis revealed that occupational therapy leadership development is seen as a process and an outcome. Key themes from an epistemological perspective showed that leadership development is a social and mentored process and can be achieved through engagement in various strategies and contexts.
- Little empirical evidence exists on the efficacy of leadership development strategies in occupational therapy, thus providing a challenge in operationalizing the concept. More research is needed to determine the efficacy of occupational therapy leadership development approaches.
- Based on the existing literature, a theoretical definition of leadership development was proposed with the anticipation to serve as a basis for future research.
- Quantitative analyses indicated that entry-level doctoral educators are average-level in their andragogical facilitation. No significant personal factors, such as the terminal degree or experience in academia, influence the andragogical facilitation score. Based on discrete factor scores of the andragogical assessment tool, occupational therapy educators are empathetic to their student's needs but also are teacher-centered in their methods of leadership education.
- The qualitative analysis revealed three key themes related to occupational therapy educators' perspectives on andragogical leadership education: *educator's attributes of leadership*, *designing intentional learning experiences*, and *the occupation of work*. Sub-

analyses to determine the *what* and the *how* were completed for each theme to provide further elaboration on the educators' lived experiences (Creswell & Poth, 2018, p. 201).

- Integration of the three research studies resulted in the creation of a framework for leadership education. The framework is grounded in the Person-Environment-Occupation (PEO) model displaying the transactive relationship between educator characteristics, the intentional learning environment, and the occupation of work (the occupational therapy educators) with the performance outcome being effective leadership development. Educators who wish to maximize their performance should aim to create congruence with these three components.
- Accreditation standards in occupational therapy play a key role and are influential in entry-level doctoral occupational therapy leadership education. The profession and accrediting body need to give greater attention to the depth and nuances of the standards so that they promote best practices in leadership development and set a strong foundation for future leadership development.
- Engaging in leadership behaviors helps to support continued engagement in leadership behaviors and should be a supported process throughout the occupational therapy practitioner career, from school to expert practitioner. Occupational therapy practitioners need to engage in lifelong learning, which includes leadership development. They also need to form a leadership identity that empowers them to feel confident in acting when needed.

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