
2020

Exploration of Self-Perceived Leadership Practices of Entry-Level Doctoral Students during the Doctoral Capstone Experience

Tracey E. Recigno
Thomas Jefferson University

Sara Benham
Moravian College

Adele Breen-Franklin
University of the Sciences in Philadelphia

Follow this and additional works at: <https://encompass.eku.edu/jote>



Part of the [Occupational Therapy Commons](#)

Recommended Citation

Recigno, T. E., Benham, S., & Breen-Franklin, A. (2020). Exploration of Self-Perceived Leadership Practices of Entry-Level Doctoral Students during the Doctoral Capstone Experience. *Journal of Occupational Therapy Education*, 4 (1). <https://doi.org/10.26681/jote.2020.040113>

This Original Research is brought to you for free and open access by the Journals at Encompass. It has been accepted for inclusion in Journal of Occupational Therapy Education by an authorized editor of Encompass. For more information, please contact laura.edwards@eku.edu.

Exploration of Self-Perceived Leadership Practices of Entry-Level Doctoral Students during the Doctoral Capstone Experience

Abstract

There is limited literature reporting the methodology of leadership advancement in entry-level *Doctoral-Degree-Level Educational Programs* through the Capstone Experience. The purpose of this study was to explore if self-perceived leadership practices increase after the Capstone Experience utilizing a one group, pretest-posttest design. Sixteen students completed the *Student Leadership Practices Inventory* (SLPI) from pretest to posttest. Self-perceived leadership practices of the fourth-year cohort of doctoral students increased significantly, $t(15) = 5.42, p = 0.00007$, with a large effect size ($d = 1.355$). Students enrolled in the community-based track were 31.25% of the sample, compared to 68.75% enrolled in the leadership track. Site mentors of the Capstone Experience were licensed occupational therapists for 37.5% of students, while the remaining 62.5% of students were matched with a site mentor outside of the occupational therapy profession. These results may indicate that through a transformative process of experiential learning, and with an emphasis on forging partnerships inside and outside of the profession, leadership growth is fostered through a Capstone Experience complementing didactic preparation in the classroom. Future studies should include an additional objective measurement and a comparison group to control for extraneous variables.

Keywords

Leadership, occupational therapy doctorate education, assessment

Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Acknowledgements

This research was conducted at the University of the Sciences in Philadelphia.



Volume 4, Issue 1

**Exploration of Self-Perceived Leadership Practices of Entry-Level
Doctoral Students During the Doctoral Capstone Experience**

Tracey Recigno, OTD, OTR/L¹

Sara Benham, OTD, MOT, OTR/L, ATP²

Adele Breen-Franklin, OTD, JD, OTR/L³

Thomas Jefferson University¹

Moravian College²

University of the Sciences³

United States

ABSTRACT

There is limited literature reporting the methodology of leadership advancement in entry-level *Doctoral-Degree-Level Educational Programs* through the Capstone Experience. The purpose of this study was to explore if self-perceived leadership practices increase after the Capstone Experience utilizing a one group, pretest-posttest design. Sixteen students completed the *Student Leadership Practices Inventory* (SLPI) from pretest to posttest. Self-perceived leadership practices of the fourth-year cohort of doctoral students increased significantly, $t(15) = 5.42$, $p = 0.00007$, with a large effect size ($d = 1.355$). Students enrolled in the community-based track were 31.25% of the sample, compared to 68.75% enrolled in the leadership track. Site mentors of the Capstone Experience were licensed occupational therapists for 37.5% of students, while the remaining 62.5% of students were matched with a site mentor outside of the occupational therapy profession. These results may indicate that through a transformative process of experiential learning, and with an emphasis on forging partnerships inside and outside of the profession, leadership growth is fostered through a Capstone Experience complementing didactic preparation in the classroom. Future studies should include an additional objective measurement and a comparison group to control for extraneous variables.

INTRODUCTION AND LITERATURE REVIEW

Leadership integration in occupational therapy has been a topic of discussion in both practice and educational settings. The call for leadership from top members of the profession is a recurring theme in occupational therapy literature and lectureships. In Virginia Stoffel's 2013 Inaugural Presidential Address, she emphasized the importance of leaders at every level to advocate for occupational therapy's role in addressing the needs of society locally and globally (Stoffel, 2013). Jim Hinojosa spoke to an undercurrent of leadership behaviors needed to engage and innovate in the "era of hyperchange" within the healthcare landscape in his 2007 Eleanor Clarke Slagle Lecture (Hinojosa, 2007). In the 2013 Elizabeth Casson Memorial Lecture in Scotland, Elaine Hunter articulated how occupational therapists must use their leadership qualities to work interprofessionally to solve problems and be forward thinking (Hunter, 2013). *Vision 2025* articulates the importance of leadership as a core value needed to propel the profession successfully into the future (American Occupational Therapy Association [AOTA], 2017). It is essential that occupational therapy education addresses this call for leadership, and facilitates opportunities for students to build leadership qualities that can be utilized throughout their career from their role as student to expert practitioner. Building leadership behaviors of occupational therapy students is vital to support the profession and provide a comprehensive occupational therapy education.

Leadership in Entry-level Curricula

Leadership development in students is a complex process that requires repeated engagement in dynamic and meaningful leadership experiences (Dugan, 2011). Educators employ a variety of strategies to promote leadership development in the classroom and most often utilize class discussions, research projects, and personal growth activities to foster this capacity (Jenkins, 2013). However, Allen and Hartman (2009) argued that classroom learning limits leadership development and experiences must offer structured and robust learning to foster behaviors. Students demonstrate a preference for activities that offer a range of learning opportunities that are personalized and focused on their own personal growth and skill building (Allen & Hartman, 2009; Posner, 2009). These types of opportunities may be challenging to facilitate in traditional didactic instruction. Providing students with activities to support development of leadership skills requires experiential learning opportunities outside the classroom, thus initiating standards for an experiential process in occupational therapy education.

Accreditation Standards

In 2006, the Accreditation Council for Occupational Therapy Education (ACOTE) adopted new accreditation standards for both *Master's-Degree-Level Educational Programs* and *Doctoral-Degree-Level Educational Programs*, with distinct differences including the demonstration of leadership skills for entry-level graduates of doctoral degree programs (ACOTE, 2012). The 2011 and 2018 Accreditation Standards updates continue the inclusion that doctoral-prepared practitioners should "demonstrate leadership skills" (ACOTE, 2018, p. 35) in regards to the delivery of services and quality management and improvement. These changes to the standards are reflective of the conversations centered on the transition to the doctorate as the professional entry point. Many articles emphasized the importance of creating practitioners who could

autonomously act as collaborative change agents and clinical scholars (Brown, Crabtree, Mu, & Wells, 2015; Case-Smith, Page, Darragh, Rybski, & Cleary, 2014; Griffiths & Padilla, 2006; Pierce & Peyton, 1999). Leadership is a consistent theme and identified as one of the many benefits to the profession with this paradigm shift.

Within occupational therapy doctoral programs, educational standards require an in-depth experiential component during the final portion of the curriculum, known as the Capstone Experience. Students engage in a 14-week mentored experience that allows them to address professional development goals that may include leadership-focused behaviors. Even if students do not choose leadership-specific objectives (i.e. goals), often the Capstone Experience encourages engagement in leadership behaviors due to the nature of the partnerships forged within the settings during project completion. This portion of the occupational therapy doctoral curriculum is an invaluable opportunity to develop advanced skills beyond what may be achieved in typical didactic coursework. However, measurement and reporting of leadership growth of students in entry-level doctoral degree occupational therapy programs remains scant in occupational therapy-related literature. This lack of evidence may be due to the relatively small number of accredited doctoral level programs (36 at the time of this publication; AOTA, 2019). Infancy in the development of the entry-level doctoral program prompts a need for a theoretical framework for observation of these leadership changes over time.

Transformational Leadership

Occupational therapy practitioners and faculty members within leadership positions may often demonstrate a leadership style consistent with transformational leadership theory (Snodgrass, Douthitt, Ellis, Wade, & Plemons, 2008; Snodgrass, & Shachar, 2008; Wylie & Gallagher, 2009). Transformational leadership originated from the work of James MacGregor Burns and emphasizes the importance of engaging other individuals through motivation to facilitate change and transformation (Bowyer, 2015). A study conducted by Wylie and Gallagher (2009) noted that occupational therapists significantly and consistently demonstrated higher transformational leadership behaviors in comparison with other allied health professionals. By nature, occupational therapists inherently use a transformational approach when working alongside clients to support their goals (Dubouloz, 2014) and this translates to using the same skills to lead the profession. Leaders within the occupational therapy community identify the need for competence in collaborative connections as a key factor for individuals responding to the call of leadership roles (Heard, 2014). This directly supports the need for an advanced education in leadership to better develop an understanding of transformational leadership theory and how it may be leveraged in practice.

Measurement of Leadership

A review of the literature shows that leadership growth is measured through both qualitative and quantitative approaches. The use of narratives offers a qualitative perspective to describe perceptions of leadership growth during educational experiences of nursing and occupational therapy students (Hendricks & Toth-Cohen, 2018; Nordick, 2019). More often, health profession students' leadership changes are measured using quantitative methodology such as the *Student Leadership Practices*

Inventory, the *Leadership Practices Inventory* and the *Multi-factor Leadership Questionnaire* (Eigsti & Davis, 2018; Foli, Braswell, Kirkpatrick, & Eunjung, 2014; Gafni Lachter & Ruland, 2018; LoVasco, Maher, Thompson, & Stiller, 2016; Waite & McKinney, 2015). Health professions such as nursing and physical therapy are most represented in the literature, demonstrating a gap in reporting leadership growth changes in occupational therapy students.

Considering the importance of leadership behaviors required to enhance the future of occupational therapy practice, as well as the limited literature reporting the methodology of leadership advancement in educational settings through a transformative process, the following research question is proposed: Among fourth-year entry-level doctorate of occupational therapy students, do self-perceived leadership practices increase, as measured by the *Student Leadership Practices Inventory* (SLPI), after completion of the Capstone Experience? The researchers hypothesized a mean increase in self-perceived student leadership practices after the engagement in the fourth year doctoral Capstone Experience and Project.

METHODOLOGY

Procedure

This exploratory study design utilized a one group, within-subject, pretest-posttest design (repeated measures design) at an East Coast university with an ACOTE-accredited doctoral occupational therapy program. Students may enter this program either as post-baccalaureates or through an accelerated pathway entering the institution as freshman. Participants were recruited from the Fall 2018 Doctoral Capstone Project planning course (titled “Independent Project in OT” and “Research Independent Study”), which enrolled one cohort of doctorate students (DrOT) in their fourth year of the professional program. All students enrolled in the course were required to complete a Capstone Project Proposal and Professional Development Plan. All students were then required to enroll in the Spring 2019 course which encompasses the Capstone Experience (titled “Doctoral Experiential Component”). During Week 7 of the Fall 2018 course, the instructor sent an email invitation to all enrolled students to participate, along with the informed consent. During Week 8, after signing the informed consent, the students were asked to complete the pretest SLPI and a demographic intake form. In Spring 2019, students were asked to complete the posttest of the SLPI during Week 15 of the course, or within the last two weeks of their 16-week Capstone Experience component. Thus, approximately 27-28 weeks passed between the pretest to posttest. The students did not have access to their original scores on the pretest SLPI, when completing the posttest SLPI (e.g. students were blinded to their own scoring from pretest to posttest). The University of the Sciences Institutional Review Board (IRB) approved this research study.

During Weeks 8 through 15 of the Fall 2018 Doctoral Capstone Project planning course, students were required to complete various activities in preparation for the Spring 2019 Capstone Experience course. The coursework was designed for students to develop a project related to occupational therapy practice, requiring the synthesis and application

of in-depth knowledge within a chosen practice area. Course assignments required students to: Submit and obtain approval of their Doctoral Capstone Project to the institution's IRB, finalize completion of a Capstone Proposal Paper and approval from the Director of Doctoral Projects, present their Capstone Proposal Presentation to a Doctoral Panel for approval, and complete and receive approval for their Professional Development Plan objectives (approval granted from the Doctoral Faculty Advisor and the Director of Doctoral Projects). The Capstone Proposal Presentation was completed in a two-step process: Students were required to receive initial approval of their project idea at midterm in order to submit the protocol to the IRB, and then the final Capstone Proposal Presentation was completed during final exam week. All assignments were completed with the guidance of the Doctoral Faculty Advisor and the Director of Doctoral Projects. The study was conducted under the 2011 ACOTE standards requiring a 16-week Experiential, therefore it should be noted that the 2018 standards will only require 14 weeks. Students were able to start their 16-week Capstone Experience no sooner than completion of their Fall 2018 coursework, and no later than Week 1 of the Spring 2019 semester, if they received passing grades on the Capstone Proposal Presentation, Capstone Proposal Paper, and Professional Development Plan. Students could begin their 16-week Capstone Experience, but could not initiate their Capstone Project until receiving IRB approval for their protocol. In the Spring 2019 semester, students initiated and completed their Capstone Experience coursework. Please see Table 1 which describes the fourth year DrOT coursework related to the Doctoral Capstone Project.

Table 1

Doctoral Capstone Project Coursework and Timeline

Fourth Year of DrOT Program, Fall Semester: <u>Doctoral Capstone Project</u> planning course titled "Independent Project in OT" and "Research Independent Study"	Weeks 1-7	<ul style="list-style-type: none"> • Prepare draft of the <u>Capstone Proposal Paper</u> and prepare for the two-step process of the <u>Capstone Proposal Presentation</u>
	Week 8	<ul style="list-style-type: none"> • <u>Capstone Proposal Presentation (Step 1)</u>: Initial presentation to Doctoral Panel
	Week 10	<ul style="list-style-type: none"> • Submit <u>Doctoral Capstone Project</u> to the IRB
	Weeks 12-14	<ul style="list-style-type: none"> • Complete <u>Professional Development Plan</u>
	Week 15	<ul style="list-style-type: none"> • <u>Capstone Proposal Presentation (Step 2)</u>: Present final presentation to Doctoral Panel • Submit <u>Capstone Proposal Paper</u>
Fourth Year of DrOT Program, Spring Semester: Capstone Experience course, titled "Doctoral Experiential Component"	Pre-semester-Week 1	<ul style="list-style-type: none"> • Must obtain IRB approval prior to initiating the <u>Doctoral Capstone Project</u>
	Weeks 2-15	<ul style="list-style-type: none"> • Complete <u>Doctoral Capstone Project</u>
	Week 16	<ul style="list-style-type: none"> • Submit manuscript • Poster presentation disseminated to occupational therapy practitioners in the community and the Doctoral Panel

Student learning outcomes of the Spring 2019 Capstone Experience course included engagement in a mentoring experience with a knowledgeable professional (who is not required to be a licensed occupational therapist) defined as “Site Mentor” for this program, to develop expertise in the development of innovative practice, clinical research, scholarship, and to develop expertise in the student’s chosen area of concentration (either leadership or community-based practice). Assignments for the course included the completion of the Professional Development Plan objectives, Doctoral Faculty Advisor mentoring meetings (a minimum of four throughout the semester), discussion board postings, reflection assignments, and successful completion of a prepared manuscript of the completed project (objectively assessed by one external reviewer and the Doctoral Faculty Advisor), as well as a poster presentation disseminated to occupational therapy practitioners in the community (objectively assessed by the Doctoral Panel and at least one external, licensed and doctoral-prepared occupational therapist reviewer). The discussion board and reflection assignments had an explicit focus on leadership. Students were required to identify examples that occurred during their doctoral experiential that echoed concepts of Kouzes and Posner’s (2017) five exemplary leadership practices of *Model the Way*, *Inspire a Shared Vision*, *Challenge the Process*, *Enable Others to Act*, and *Encourage the Heart* in order to complete the discussion board postings. At the culmination of the Capstone Experience, the course instructor required students to complete a reflection essay assignment on their perceived growth in leadership over the final year of the curriculum. These two assignments were designed to intentionally bring awareness to leadership behaviors developed by the students.

Measurement

Upon pretest and posttest, students completed the SLPI, a 30 question self-assessment developed by Kouzes and Posner that measures the frequency of transformational leadership behaviors in college students (Kouzes & Posner, 2013). The instrument uses a 5-point Likert scale (“1” indicates “rarely,” up to “5” which indicates “very frequently”) to assess five categories of leadership: 1) Model the Way, 2) Inspire a Shared Vision, 3) Challenge the Process, 4) Enable Others to Act and 5) Encourage the Heart. In development of the SLPI, the authors determined that these concepts reflected student experiences when they considered their “personal best as leaders” (p. 222) and fit well with transformational leadership theory. The assessment takes approximately 10-15 minutes to complete. Internal reliability for the SLPI is reported as generally having Cronbach alpha coefficients above 0.61 and normative analyses demonstrate validity of the instrument (Posner, 2012). In college students, scores of the SLPI positively correlated to leadership effectiveness qualities externally observed by others (Posner & Brodsky, 1992).

Paired *t* tests were utilized to analyze students’ pre and post SLPI responses with SPSS software (Version 24.0; IBM Corp.; Armonk, NY). Significance level was set at 0.05. The total scores on the SLPI and the individual questions were analyzed, pretest to posttest. Cohen’s *d* was used to calculate effect size (Cohen, 1988).

RESULTS

Of the 18 students that received the invitation to participate in the study, 18 students initially signed the informed consent and completed the pretest SLPI. Upon the invitation to complete the posttest SLPI, two students did not complete the assessment within the time frame of the data collection of the study. Therefore, those two students were excluded from the demographic descriptive analysis and the pretest-posttest analysis, yielding an $n=16$ (see Table 2).

Table 2

Demographic Characteristics of Participants (n=16)

	M (SD) or n (%)
Age, years	24 (2.97)
Gender	
Female	15 (93.75%)
Male	1 (6.25%)
Race	
Asian	5 (31.25%)
Black or African American	2 (12.5%)
White	9 (56.25%)
Ethnicity	
Hispanic or Latino	0 (0%)
Not Hispanic or Latino	16 (100%)
Students with an occupational therapist as a Capstone Experience Site Mentor**	6 (37.5%)
Students placed at a traditional occupational therapy service-delivery setting	3 (20%)
DrOT “Track”	
Community-based	5 (31.25%)
Leadership	11 (68.75%)

Note. M=mean, SD=standard deviation, DrOT=Doctor of Occupational Therapy Program

**10 students were paired (groups of two) and shared one Site Mentor at one service-delivery setting.

Overall, the scores on the SLPI increased significantly, $t(15) = 5.42$, $p = 0.00007$, and the effect size was calculated as $d = 1.35$ (see Table 3). Individual questions were analyzed for significant changes. Significant increases were found for all individual questions ($p < 0.05$), with the exception of Q23 ($p = 0.54$; “I make sure that big projects we undertake are broken down into smaller and doable parts”), with a pretest mean of 4.19 (± 0.54).

increasing to a posttest mean of 4.31(\pm 0.87). Most notably, Q1 (“I set a personal example of what I expect for other people”), Q8 (“I look for ways that others can try out new ideas and methods”), Q10 (“I encourage others as they work on activities and programs in our organization”), Q16 (“I seek to understand how my actions affect other people’s performance”), Q21 (“I make sure that people support the values we have agreed upon”), and Q28 (“I take initiative in experimenting with the way things can be done”) (Posner, 2012) all increased by a mean of at least 0.87.

Table 3

Student Leadership Practices Inventory Changes Over 27-28 Weeks (n=16)

	Pre M(SD)	Post M(SD)	<i>t</i>	<i>df</i>	<i>p</i>	Effect Size (Cohen’s <i>d</i>)	95% CI Lower	95% CI Upper
<i>Student Leadership Practices Inventory</i>	110.50 (11.77)	129.00 (12.28)	5.42	15	.00007* *	1.35	11.22	25.78

Note. CI = confidence interval; Effect size interpretation <0.2 = trivial effect; 0.2-0.5 = small effect; 0.5-0.8 = moderate effect; >0.8 = large effect (Cohen, 1988).

**Statistical significance at $p < .05$.

Of the 16 students, 37.5% had a licensed occupational therapy practitioner as their Site Mentor, in both clinical and non-clinical (i.e. non-traditional) settings. The remaining 62.5% of students were matched to Site Mentors who were administrative-level personnel from professions outside of occupational therapy, which included social work, nursing, primary education, and post-secondary education (i.e. university faculty).

The two groups DrOT tracks of students, “community-based” ($n=11$) and “leadership” ($n=5$) tracks, were analyzed separately for differences within groups. These two groups were too small to analyze for statistically significant differences, however mean changes are displayed in Table 4.

Table 4

Changes in the SLPI, Separated by DrOT Track (n=16)

	Pre SLPI M(SD)	Post SLPI M(SD)	Δ in SLPI M(SD)
Community-based track ($n=5$)	108.08 (5.40)	127.00 (16.45)	18.20 (13.16)
Leadership track ($n=11$)	111.27(13.93)	129.91 (10.72)	18.64 (14.51)

DISCUSSION

The changes in self-perceived leadership practices were significant, ($p=0.00007$) over a time frame of approximately 27-28 weeks which included the Capstone Experience. These results are similar to studies in academic nursing literature which utilized the SLPI as a pretest-posttest outcome measure after targeted engagement and service learning activities (Foli, Braswell, Kirkpatrick, & Eunjung, 2014; Waite & McKinney, 2015). All questions showed an increase in students' perceived engagement of leadership behaviors, however Q23 ("I make sure that big projects we undertake are broken down into smaller and doable parts"; Posner, 2012) did not result in a significant increase. Upon examination of Q23, the pretest score was initially fairly favorable (mean of 4.19), likely resulting in a ceiling effect. Perhaps the students, already by their fourth year of professional education, perceive that they often break down projects into smaller parts by completing multiple semester-long projects during their didactic education, in years prior.

Statistically significant conclusions cannot be drawn as to the effects of two separate tracks of the didactic curriculum (community-based track versus leadership track), due to the small number of students enrolled in the community-based track ($n=5$), and therefore parametric statistics could not be utilized (Portney & Watkins, 2008). However, both the mean changes and the standard deviations [$18.20(\pm 13.16)$ and $18.64(\pm 14.51)$] (see Table 4) of the two groups were similar. This similarity may suggest that students' perceived leadership growth during the fourth year resulted in similar increases between groups, possibly regardless of the didactic focus on leadership within the curriculum. However, it should be noted that the entire cohort ($n=16$) was enrolled in the course "Leadership, Management, and Supervision" during their second professional year.

Students engaged in a variety of activities during the Capstone Experience that promoted engagement in leadership behaviors. Stepping out of traditional clinical practice roles likely provided students with an opportunity to practice leadership behavior skill sets and develop confidence in this area. Doctoral experiential sites in this study were predominantly in non-traditional settings with non-occupational therapy mentors. This may have also contributed to enabling students to participate in leadership-related activities by developing their capacity to articulate and advocate through an occupational therapy lens. Questions that scored highest in significant changes centered on Kouzes and Posner's (2017) transformational leadership behavior principles of *Model the Way* and *Challenge the Process*. Students gave such examples as modeling new ways for caregivers to better engage clients in routine activities, such as feeding, at both an intellectual disabilities adult day center and a school for the blind. They also articulated how they provided mentorship to second-year occupational therapy students during Problem Based Learning modules (Azer, 2011) while serving as teaching assistants. Both examples demonstrate student perceptions of how they *Model the Way* consistent with Q1, Q16, and Q21 on the SLPI (Posner, 2012). In consideration of activities that addressed the concept of *Challenge the Process* (Q8 and Q28), examples included making recommendations to add occupation-based activities such

as money management to community outings and developing programs to promote mindfulness in first-year college students. Students identified the need to take risks and ask questions in order to make a positive change at their sites.

Creating effective community partnerships and fostering meaningful change requires an understanding of organizational dynamics. In terms of accreditation standards, management and leadership skills must “include principles of management and systems in the provision of occupational therapy services to persons, groups, populations, and organizations” (ACOTE, 2018, p. 34). Students had many opportunities during the Capstone Experience to exercise knowledge in this content area. Students developed and trialed strategies to hone the necessary leadership skills to meet the organizational needs of their various settings. Consistently advocating for and articulating the distinct value of occupational therapy to stakeholders in settings with and without occupational therapy services was a routine undertaking for these students. Engagement in the above related activities could explain this perceived change in engagement in leadership behaviors.

Limitations and Future Research

The primary limitation of this study was that the design lacked a control group. It is unknown if the completion of the Capstone Experience was superior to the fieldwork experience alone in regards to growth in self-perceived leadership practices. Future research should be inclusive of a control group, although it would prove difficult to ethically randomize students to a group without the Capstone Experience. At the university where this study was conducted, both masters and doctoral programs ran concurrently. In future studies, *Master's-Degree-Level* students may serve as a control group with matched variables (e.g. age, race) within a similar 27-28 week time frame, who complete the SLPI during the same pretest-posttest time frame while completing Fieldwork Level II. Other limitations include that the measurement of leadership growth was a subjective report, from the perspective of the student. Future studies should include an objective (i.e. outside) measurement of leadership practices and compare to participant self-scoring, a methodology utilized within nursing literature (Waite & McKinney, 2015). Future examinations should also track longitudinal leadership outcomes of the Capstone Experience. Alternatively, to increase the sample size for a controlled study, multiple cohorts over an extended period of time may be included. Other methods to explore the value of the Capstone Experience in regards to leadership may include qualitative and quantitative perspectives of the Site Mentor during the Capstone Experience, and post-graduation qualitative perspectives of the follow-up employer and if the graduated student engaged in leadership roles inside and outside of occupational therapy practice.

IMPLICATIONS FOR OCCUPATIONAL THERAPY EDUCATION

An important question regarding the entry-level occupational therapy doctoral degree is its perceived “value,” not only within the profession, but also by other healthcare professions. Engagement in the doctoral Capstone Experience not only benefits the students from a leadership standpoint, but also enhances the profession. Students demonstrate advanced skills in leadership behaviors that promotes the profession in a

positive light and brings attention to the unique perspective of occupational therapy. Partnerships in settings that do not have occupational therapy services offers exposure to the profession in emerging settings, thus expanding the profession's potential service delivery opportunities and is consistent with Elnora Gilfoyle's assertion that "as occupational therapists, we have a rich history that lends itself naturally to a leadership role in creating partnerships" (Gilfoyle, 1989, p. 569). Given occupational therapy's emphasis and understanding on how participation in life's daily occupations promotes physical and mental health, occupational therapy practitioners can be leaders in the design of community and health-based services that are expected to be needed in the future. Case-Smith et al. (2014) theorized that doctoral level training provides occupational therapists with increased independence in decision making and "equal footing with psychologists, pharmacists, physical therapists, nurse practitioners, and physicians" (p. e59). Doctoral students will use their education and experiences as future practitioners to support the transformation of the profession as it evolves with the needs of people, groups, and populations across the globe.

Occupational therapy educators need to be intentional in pedagogical approaches to focus on how leadership skills are developed through coursework and curriculum. Incorporating assignments that require a reflective component on experiences that promote leadership behaviors, such as discussion boards or online forums, will help bring attention to areas of growth and transformation. Providing students with opportunities to encourage awareness of leadership behaviors will allow them to internalize these strengths and promote future success in pursuing professional goals and in their career (Rubens, Schoenfeld, Schaffer, & Leah, 2018). It should be noted that the instructor intentionally fostered leadership thinking through discussion boards, and without this process, other programs may not expect similar transfer of leadership behaviors.

While both entry-level degrees offer an opportunity to develop leadership skills, it is important for doctoral students to understand the difference and intentionality of their education in developing higher-level leadership practices. Awareness of preparation in and establishing an identity of advanced "clinical reasoning, problem solving, interprofessional, evidence-based practice, and leadership abilities" will allow doctoral students to take these skills into an ever changing and evolving occupational therapy practice to meet societal needs (Brown et al., 2015, p. 2). DeAngelis (2006) echoed this idea and articulated the development of a "multifaceted graduate" as a positive indicator of entry-level doctoral education (p. 135). With concerted efforts to obtain evidence of skill acquisition within each entry-level degree pathway, potential applicants to entry-level programs may be better informed of their options when pursuing graduate-level entry into the profession of occupational therapy.

CONCLUSION

Although entry-level doctoral degree programs are relatively new to occupational therapy education, they may provide students transformative learning opportunities so they may become emerging leaders in the profession. Through the development of the Capstone Project and Capstone Experience, students are enabled to learn and practice

leadership skills, and therefore, increase their perceived leadership skills from pretest to posttest. Students are able to hone these skills and feel more confident in their abilities. With the dynamic nature of the changes in healthcare, it is vital that emerging doctoral practitioners practice the leadership skills necessary to advocate for the profession. The combination of hands-on, in-depth experiences and reflective exercises may facilitate the students' understanding of the concept of leadership and their own individual abilities.

References

- ACOTE. (2012). Accreditation Council for Occupational Therapy Education (ACOTE®) Standards and Interpretive Guidelines. Retrieved from: <http://www.acote.org/~/media/Corporate/Files/EducationCareers/Accredit/StandardsReview/2006ACOTESTandardsInterpretiveGuide8-2012.pdf>
- ACOTE. (2018). 2018 Accreditation Council for Occupational Therapy Education (ACOTE®) Standards and Interpretive Guide (effective July 31, 2020) Retrieved from: <https://www.aota.org/~media/Corporate/Files/EducationCareers/Accredit/StandardsReview/2018-ACOTE-Standards-Interpretive-Guide.pdf>
- Allen, S.J., & Hartman, N.S. (2009). Sources of learning in student leadership development programming. *Journal of Leadership Studies*, 3(3), 6-16. <https://doi.org/10.1002/jls.20119>
- American Occupational Therapy Association. (2019). OT Doctoral-Degree-Level Programs - Accredited. Retrieved from <https://www.aota.org/Education-Careers/Find-School/AccreditEntryLevel/DoctoralEntryLevel.aspx>
- American Occupational Therapy Association. (2017). Vision 2025. *American Journal of Occupational Therapy*, 71, 7103420010. Retrieved from <https://doi.org/10.5014/ajot.2017.713002>
- Azer, S. A. (2011). Introducing a problem-based learning program: 12 tips for success. *Medical Teacher*, 33(10), 808-813. <https://doi.org/10.3109/0142159X.2011.558137>
- Bowyer, P. (2015). Transformational leadership theory and the Model of Human Occupation. In S.B. Dunbar & K. Winston (Eds.), *An occupational perspective on leadership: Theoretical and practical dimensions* (2nd ed., pp. 25-34). Thorofare, NJ: SLACK Incorporated. <https://doi.org/10.1080/01924788.2011.574260>
- Brown, T., Crabtree, J.L., Mu, K., & Wells, J. (2015). The Issue Is - The next paradigm shift in occupational therapy education: The move to the entry-level clinical doctorate. *American Journal of Occupational Therapy*, 69(Suppl. 2), 6912360020. <https://doi.org/10.5014/ajot.2015.016527>
- Case-Smith, J., Page, S. J., Darragh, A., Rybski, M., & Cleary, D. (2014). The Issue Is - The professional occupational therapy doctoral degree: Why do it? *American Journal of Occupational Therapy*, 68, e55-e60. <https://doi.org/10.5014/ajot.2014.008805>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- DeAngelis, T. (2006). *Elite occupational therapists' attitudes regarding the entry-level clinical occupational therapy doctoral degree* (Unpublished doctoral dissertation). Widener University, Chester, PA.

- Dubouloz, C. (2014). Transformative occupational therapy: We are wired to be transformers. *Canadian Journal of Occupational Therapy*, 8 (4), 204-214. <https://doi.org/10.1177/000841741554913>
- Dugan, J.P. (2011). Pervasive myths in leadership development: Unpacking constraints on leadership learning. *Journal of Leadership Studies*, 5(2), 79-84. <https://doi.org/10.1002/jls.20223>
- Eigsti, H.J., & Davis, A.M. (2018). Impact of a leadership thread on doctor of physical therapy education. *Journal of Physical Therapy Education*, 32(4), 376-381. <https://doi.org/10.1097/JTE.0000000000000066>
- Foli, K., Braswell, M., Kirkpatrick, J. & Eunjung, L. (2014). Development of leadership behaviors in undergraduate nursing students: A service learning approach. *Nursing Education Perspectives*, 35(2). 76-82. <https://doi.org/10.5480/11-578.1>
- Gafni Lachter, L.R., & Ruland, J.P. (2018). Enhancing leadership and relationships by implementing a peer mentoring program. *Australian Occupational Therapy Journal*, 65(4), 276-284. <https://doi.org/10.1111/1440-1630.12471>
- Gilfoyle, E. M. (1989). Leadership and occupational therapy. *American Journal of Occupational Therapy*, 43(9), 567-570. <https://doi.org/10.5014/ajot.43.9.567>
- Griffiths, Y., & Padilla, R. (2006). National status of the entry-level doctorate in occupational therapy (OTD). *American Journal of Occupational Therapy*, 60, 540-550. <https://doi.org/10.5014/ajot.60.5.540>
- Heard, C.P. (2014). Choosing the path of leadership in occupational therapy. *The Open Journal of Occupational Therapy*, 2(1), 1-18. <https://doi.org/10.15453/2168-6408.1055>
- Hendricks, F., & Toth-Cohen, S. (2018). Perceptions about authentic leadership development: South African occupational therapy students' camp experience. *Occupational Therapy International*, 2018, 1-9. <https://doi.org/10.1155/2018/1587906>
- Hinojosa, J. (2007). Becoming innovators in an era of hyperchange [Eleanor Clarke Slagle Lecture]. *American Journal of Occupational Therapy*, 61, 629-637. <https://doi.org/10.5014/ajot.61.6.629>
- Hunter, E.P. (2013). The Elizabeth Casson Memorial Lecture 2013: Transformational leadership in occupational therapy - delivery change through conversations. *British Journal of Occupational Therapy*, 76(8), 346-354. <https://doi.org/10.4276/030802213X13757040168234>
- Jenkins, D.M. (2013). Exploring instructional strategies in student leadership development programming. *Journal of Leadership Studies*, 6(4), 48-62. <https://doi.org/10.1002/jls.21266>
- Kouzes, J.M., & Posner, B.Z. (2017). *The leadership challenge* (6th ed.). San Francisco, CA: Jossey-Bass.
- Kouzes, J.M. & Posner, B.Z. (2013). *Student Leadership Practices Inventory - Self* (2nd ed.) Hoboken, NJ: Wiley.
- LoVasco, L., Maher, S., Thompson, K., & Stiller, C. (2016). Perceived leadership practices in year-one students enrolled in professional entry-level doctor of physical therapy programs. *Journal of Allied Health*, 45(2). 122-128.

- Nordick, C.L. (2019). Evaluation leadership competency in DNP clinical practice. *Journal of Doctoral Nursing Practice*, 12(1), 111-116.
<https://doi.org/10.1891/2380-9418.12.1.111>
- Pierce, D., & Peyton, C. (1999). A historical cross-disciplinary perspective on the professional doctorate in occupational therapy. *American Journal of Occupational Therapy*, 53, 64-71. <https://doi.org/10.5014/ajot.53.1.64>
- Portney, L. G., & Watkins, M. P. (2008). *Foundations of clinical research: Applications to practice* (3rd ed.). Upper Saddle River, NJ: Pearson Education.
- Posner, B.Z. (2009). Understanding the learning tactics of college students and their relationship to leadership. *Leadership & Organizational Development Journal*, 3(4), 386-395. <https://doi.org/10.1108/01437730910961694>
- Posner, B.Z., & Brodsky, B. (1992). A leadership development instrument for college students. *Journal of College Student Development*, 33, 231-237.
- Rubens, A., Schoenfeld, G.A., Schaffer, B.S., & Leah, J.S. (2018). Self-awareness and leadership: Developing an individual strategic professional development plan in an MBA leadership course. *The International Journal of Management Education*, 16(1), 1-13. <https://doi.org/10.1016/j.ijme.2017.11.001>
- Snodgrass, J., Douthitt, S., Ellis, R., Wade, S., & Plemons, J. (2008). Occupational therapy practitioners' perceptions of rehabilitation managers' leadership styles and the outcomes of leadership. *Journal of Allied Health*, 37(1), 38-44.
- Snodgrass, J., & Shachar, M. (2008). Faculty perceptions of occupational therapy program directors' leadership styles and outcomes of leadership. *Journal of Allied Health*, 37(4), 225-235.
- Stoffel, V.C. (2013). From heartfelt leadership to compassionate care (Inaugural Presidential Address). *American Journal of Occupational Therapy*, 67, 633-640.
<https://doi.org/10.5014/ajot.2013.676001>
- Waite, R. & McKinney, N.S. (2015). Findings from a study of aspiring nursing student leaders. *Nurse Education Today*, 32(12), 1307-1311.
<https://doi.org/10.1016/j.nedt.2015.08.016>
- Wylie, D.A., & Gallagher, H.I. (2009). Transformational leadership behaviors in allied health professions. *Journal of Allied Health*, 38(2), 65-73.