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Abstract

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Keywords

Occupational therapy, international experience, doctoral capstone experience

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ABSTRACT

The purpose of the study was to assess the impact of an international doctoral capstone on occupational therapy clinicians' current practice. The study used a cross-sectional descriptive online survey design with qualitative elements with 26 occupational therapy graduates. All participants identified as female and the majority were 25-34 years old. Participants reported that the international doctorate capstone experience positively impacted their cultural competence and professional growth. Qualitative outcomes supported these findings through three themes on culture, building rapport with patients, and professional growth. This study suggests that an international doctoral capstone experience is an important way for occupational therapy students to be prepared to become culturally competent clinicians and advance their professional skills. Limitations of the study included a convenience sample of occupational therapy alumni who graduated from Creighton University and using a non-validated survey instrument. Future studies need to use a representative sample and examine the cultural competence and professional growth of occupational therapy students who did not complete an international capstone project.

Introduction

In the United States, there are two entry points for occupational therapy (OT) education, the master's or entry-level doctorate degree. The terminal doctorate degree in OT (OTD) was developed in 1998. Due to the addition of a new degree pathway, the accreditation standards for entry-level OTD programs were formally adopted in December 2006, requiring greater rigor and solidifying standards for completion of a doctoral-level professional rotation (Stephenson et al., 2020). The doctoral professional rotation standards allowed students to explore current OT practice areas with more depth and expand their OT knowledge into novel environments and contexts.

In 2011, the Accreditation Council for Occupational Therapy Education (ACOTE) adopted new standards for the doctoral professional rotation in which the rotation was referred to as the doctoral experiential component. The standards were again updated in 2018, changing the name of the rotation to the doctoral capstone experience and project. The ACOTE (2018) standards outline the requirements for the doctoral capstone in detail, including the length of experience, areas of focus, project specifications, and general guidelines for outcome measures.

Beatty et al. (2014) defined a capstone as "...encompassing integration and application of knowledge to bridge students to their future as professionals" (p. 1). This definition is consistent in the OT doctoral capstone experience and project, as students incorporate and synthesize knowledge from didactic course work and clinical experiences, and then apply the knowledge and skills to novel, real-life situations. "The goal of the doctoral capstone is to provide an in-depth exposure to one or more of the following: clinical practice skills, research skills, administration, leadership, program and policy development, advocacy, education, and theory development" (ACOTE, 2018, p. 44). Due to the unique and individualized nature of the doctoral capstone experience and project, students can explore these focus areas in a variety of practice settings. The doctoral capstone provides students with the opportunity to engage in transformational learning resulting in professional growth and an increased understanding of the occupational therapy profession (Matilla et al., 2020).

Kemp et al. (2020) found through a national survey of entry-level doctorate programs that most students, when completing their doctoral capstone, chose to focus on the areas of clinical practice skills and/or program and policy development. These focus areas can easily be applied in both traditional and nontraditional settings. One nontraditional setting that students may engage in includes an international practice experience when international learning ties to the curricular focus of the entry-level doctorate program. Many health professions have utilized international learning experiences to enhance health care professional perspectives. Bosworth et al. (2006) found that an international learning experience provided nursing students with a greater understanding of culture and cultural sensitivity. This was further reinforced in a study completed by Kovalenko and Vellenga (2021) where nursing students engaged in an international immersion capstone course reported increased understanding of social determinants of health and sociocultural understanding. Steeb et al. (2020) found that students engaged in an advanced pharmacy practice experience in an international

setting gained valuable educational outcomes including increased cultural awareness. International academic service-learning experiences for OT students improve not only cultural awareness but also self-reflection and comprehension of health disparities (Domina & Doll, 2013). A study of medical students showed that international learning opportunities may increase the likelihood of service-centered care in physicians' future careers (Flatow et al., 2019).

While most of the previous literature related to international clinical experiences is not from occupational therapy, the basic tenet of utilizing international immersion experiences to increase cultural awareness and care for humility closely correlates with OT education and practice. Although the current evidence emphasizes the significant impact of culturally immersive clinical education experiences on student participants' current cultural humility, the research focused on the impact of culturally immersive clinical education on OT students' future clinical practice is limited (Monroe-Wise et al., 2014). Several studies pinpoint the importance of cultural humility for OT practice (Awaad, 2003; Bosworth et al., 2006; Domina & Doll, 2013; Flatow et al., 2019; Wray & Mortenson, 2011). However, there is limited research on the curriculum or outcomes of the capstone experience and project related to the OTD degree (Stephenson et al., 2020). This study aimed to examine the impact of an immersive international doctoral capstone experience on OT clinicians' current practice.

Methods

Participants

The study population consisted of graduates of the Creighton University OTD program who participated in the international doctoral experiential component/capstone rotation. Subjects were recruited through convenience sampling among those who had graduated from Creighton University's OTD program in the past five years. Institutional Review Board approval was obtained for this study.

Study Design and Procedures

A cross-sectional descriptive online survey design was employed in this study (Portney, 2020). This design was selected as it allowed the researchers to describe the impact of an international doctoral capstone rotation on OT clinicians' current practice while using a sample representation (Portney, 2020). The survey design included both open- and closed-ended questions (Dillman et al., 2014). The open-ended questions directly correlated to the closed-ended questions which allowed the participants to elaborate on their responses (Dillman et al., 2014). In developing the survey tool, we chose to utilize the phrase cultural competence due to practitioners varying understanding of the differences in terminology between cultural competence, cultural humility, cultural responsiveness, and cultural proficiency. Therefore, in the survey tool we provided participants with the following definition adapted from Cross et al. (1989): cultural competence is defined as a person's ability to understand, communicate, and interact with people of diverse cultural, ethnic, and racial backgrounds during the treatment process.

The survey instrument was developed based on an extensive literature review and the investigators' professional expertise. The survey instrument was also reviewed by three OT faculty external to the project with expertise on the topic to ensure alignment with the curriculum. Their feedback was incorporated into the final draft of the survey. The survey instrument was pilot tested with two Creighton University post-professional OTD program alumni who had completed an international doctoral capstone; survey questions were modified and finalized based upon their feedback. A total of 39 survey questions were developed and consisted of four domains focusing on clinical practice (12 questions), cultural competence (10 questions), capstone components (16 questions), and demographic information (7 questions). The survey used a combination of Likert-type, multiple-choice, closed- and open-ended questions to capture participant responses.

Data collection took place between October and December 2019. The participants were recruited via e-mail, which included brief description of the study, an invitation to the study, an incentive to be provided for participation, and a link to an online survey in Qualtrics. The survey was anonymous, and no names or personal identifiers were collected. The survey link included an informed consent form that outlined a description of the study, risks and benefits for participants, participants' rights, and information on an incentive for participation. Both the recruitment e-mail and the informed consent forms highlighted that participation in the study was voluntary. To maintain anonymity of participants, the informed consent preceded the online survey and did not collect signatures. The informed consent highlighted that proceeding with the survey implied consent to participate in the study. Research subjects were given four weeks to complete the 15- to 20-minute survey; two reminder e-mails were sent after the initial e-mail to ensure survey completion. An electronic \$10 gift card accessed at the end of the survey was provided to participants as an incentive.

Data Analysis

Quantitative data analysis was conducted in a statistical software program, STATA, version 15 (STATA, 2020). Descriptive statistics summarized the demographic features which included a) age, b) gender, c) year and duration of the international doctoral capstone experience, d) country of their international doctoral capstone experience, e) practice setting of their international doctoral capstone experience, and f) whether they spoke the language of the population they worked with during their international doctoral capstone experience. Univariate descriptive statistics including frequency means and standard deviation were calculated for all Likert scale responses in the first and second domains in the survey. For multiple-choice responses, frequency distributions for the most and least impactful components of their international experience were computed. Additionally, a Chi-Square test was performed to examine the relationship between the capstone location and duration, as well as the most and least impactful capstone components.

Qualitative data were analyzed using an inductive approach to qualitative content analysis. The process of qualitative content analysis included selecting the unit of analysis, open coding, formulating preliminary codes out of data, data coding and revising codes, and developing final themes by the research team (Cho & Lee, 2014). Three research team members were involved in the coding process initially. First, the three researchers reviewed the qualitative responses to the open-ended survey questions and developed codes independently. Then the three researchers met, discussed the individual findings, and reached consensus on the preliminary codes. Next, all five team members discussed the preliminary codes developed from the three team members and examined the relationships among them at two subsequent meetings and generated the mutually agreed upon themes.

Results

Sample Description

The survey was disseminated to a total of 67 graduates of Creighton University's OTD program who had completed their international capstone rotation from 2015 to 2019. A total of 26 surveys were collected with a 39% response rate. Of the 26 respondents, the majority (93%) ranged in age from 25-34 years old and all participants identified as female. The countries where the participants' international doctoral capstone experience took place included the Dominican Republic, China, Ecuador, United Kingdom, Nigeria, Uganda, Costa Rica, and Japan. Over half of the participants completed their rotations in the Dominican Republic (58%). Participants reported being in various practice settings, including community (22%), hospital (15%), home health (11%), early intervention (11%), academia (4%), outpatient (4%), and mental health (3%). The duration of international doctoral capstone experiences ranged from 3 to 20 weeks. About half of the participants reported speaking, although not fluently, the language of the population they worked with during their international capstone (52%), while 25% reported not speaking the language at all, and only 22% spoke the language fluently. Due to homogeneity of the OTD program demographic information on participants, race/ethnicity or country of origin was not collected.

Quantitative Results

The first domain of the survey included 12 items and asked how international doctoral capstone experience prepared the participants for their clinical practice. Likert scale responses ranged from 1 (strongly disagree) to 4 (strongly agree) and the means were calculated for all 12 items in this domain.

The highest mean scores for the perceived impact of the international doctoral capstone experience on the participant's current clinical practice were the consideration of clients' physical environment in creating client-centered goals (3.81), ease of building rapport with clients who have diverse backgrounds (3.78), appreciation of the need for client-centered practice (3.78), consideration of clients' social environment in creating client-centered goals (3.74), and involvement of clients in planning culturally appropriate interventions (3.70). The results are presented in Table 1.

Table 1*Perceived Impact of International Doctoral Capstone on Clinical Practice (N=26)*

| Indicate your level of agreement based on the perception of how your international capstone prepared you for current clinical practice | Range | Mean | SD |
|---|--------------|-------------|-----------|
| Helps me to be more prepared as a clinician | 1-4 | 3.44 | 0.50 |
| Helps me to appreciate the need for occupation-based practice | 1-4 | 3.59 | 0.49 |
| Helps me to appreciate the need for client-centered practice | 1-4 | 3.78 | 0.42 |
| Encourages me to select specific assessment based on clients' values and beliefs | 1-4 | 3.37 | 0.55 |
| Encourages me to select specific assessment based on clients' cultural backgrounds | 1-4 | 3.44 | 0.57 |
| Encourages me to consider clients' physical environment in creating client-centered goals | 1-4 | 3.81 | 0.39 |
| Encourages me to consider clients' social environment in creating client-centered goals | 1-4 | 3.74 | 0.44 |
| Makes it easier to build rapport with clients who have diverse backgrounds | 1-4 | 3.78 | 0.50 |
| Encourages me to involve my clients in planning culturally appropriate interventions | 1-4 | 3.70 | 0.46 |
| Encourages me to be more attentive to clients' non-verbal communication when providing occupational therapy services | 1-4 | 3.59 | 0.62 |
| Encourages me to consider the discharge needs of clients based on their cultural background | 1-4 | 3.41 | 0.62 |
| Encourages me to consider the discharge needs of clients based on their social context | 1-4 | 3.30 | 0.60 |

The second domain of the survey included 10 items and focused on how the international doctoral capstone experience increased participants' cultural competence. Likert-type scale responses ranged from 1 (strongly disagree) to 4 (strongly agree) and the means for the scores were calculated for all 10 items in this domain.

The highest mean scores for the perceived impact of the international doctoral capstone experience on the participants' increased cultural competence were found in their ability to identify socioeconomic implications related to clients' access to health care services (3.77); adapting interventions in their practice, based upon limited resources (3.74); recognizing the strengths and resiliency of diverse individuals, families, and communities (3.67); identifying how spirituality and religiosity affect the perceptions of their clients' health and well-being (3.58); recognizing how family dynamics may affect the course of treatment (3.56), and incorporating culturally appropriate values and beliefs into their interventions (3.56). The results are described in Table 2.

Table 2*Perceived Impact of International Doctoral Capstone on Cultural Competence (N=26)*

| My international capstone increased my cultural competence for clinical practice by allowing me to.... | Range | Mean | SD |
|---|--------------|-------------|-----------|
| Treat people who are members of ethnic groups or other diverse backgrounds which are different than my own | 1-4 | 3.48 | 0.69 |
| Incorporate culturally appropriate values and beliefs into my interventions | 1-4 | 3.56 | 0.50 |
| Address health disparities | 1-4 | 3.33 | 0.72 |
| Recognize the strengths and resiliency of diverse individuals, families, and communities | 1-4 | 3.67 | 0.47 |
| Identify the impact of spirituality and religiosity on perceptions of health and well-being | 1-4 | 3.58 | 0.49 |
| Recognize how family dynamics affect the course of treatment | 1-4 | 3.56 | 0.63 |
| Recognize social biases as they relate to engagement in treatment | 1-4 | 3.44 | 0.57 |
| Identify socio-economic implications for access to health care services | 1-4 | 3.77 | 0.42 |
| Adapt interventions based on limited resources | 1-4 | 3.74 | 0.52 |
| Recognize dietary impact on health and health behaviors | 1-4 | 3.15 | 0.76 |

In the third domain, the survey included 8 quantitative questions out of a total 16 items and asked participants to reflect on their capstone experience in terms of the most and least impactful components of the international doctoral capstone experience. The questions were stated as “which component of international capstone most prepared you for your.....” and each question asked various professional area aspects including professional practice, professional growth, professional leadership, service to the profession, service to the community, clinical practice, and cultural competence that were impacted by the international capstone component. The responses were captured through the following multiple-choice options: (a) setting learning objectives and following through, (b) mentorship from the site, (c) client interactions, (d) immersion to local culture, and (e) development of evidence (presentation, resources, program). Participants could choose only one option from the five capstone learning components. Each of the multiple-choice questions was followed by open-ended questions asking to provide an explanation for their selection.

For professional practice, 44% of participants identified “interacting with clients” and another 44% of respondents identified “immersion into the local culture” as the most impactful component of the international doctoral capstone. Fifty-six percent of respondents indicated “client interactions” as the most impactful capstone component for their professional growth, while 54% of participants reported “client interactions” as the most impactful capstone component for the service to the OT profession.

Furthermore, 67% of participants indicated “client interactions” as the most impactful capstone component for their clinical practice. Thirty-seven percent of participants reported that “development of evidence such as presentation, resources or program” of their capstone component as the most impactful on their leadership skills. Sixty-nine percent of respondents identified “immersion to local culture” as the most impactful capstone component for service to the community, while 74% of respondents reported “immersion to culture” as the capstone component that impacted mostly on their cultural competence. Participants were also prompted to identify the least impactful capstone component and provide an explanation for choosing that option. Forty-one percent of respondents indicated that “setting learning objectives and following through” was the capstone component that least prepared them for their professional practice. Moreover, 30% of participants reported that “mentorship from the site” was the capstone component that least prepared them for their professional practice. The results for the most impactful international doctoral capstone components for various professional areas with the number and percentages of those who indicated these capstone components as most impactful are outlined in Table 3.

Table 3

Professional Areas Impacted by Various Components of International Doctoral Capstone (N=26)

| Professional area | Component that has most impact on professional area | # of responses | % of responses |
|--------------------------------|--|-----------------------|-----------------------|
| Professional practice | Client interactions | 24 | 88.8 |
| Professional growth | Client interactions | 15 | 55.6 |
| Professional leadership skills | Development of evidence (presentation, resources, program) | 10 | 37 |
| Service to the profession | Client interactions | 14 | 53.8 |
| Service to the community | Immersion to local culture | 18 | 69.2 |
| Clinical practice | Client interactions | 18 | 66.7 |
| Cultural competence | Immersion to local culture | 20 | 74 |

For half of the study participants, their international doctoral capstones were limited to two to three weeks while the other half completed capstone rotations that were longer than three weeks. The data indicated differences in perspective and impact based upon the length of the capstone experience. The findings showed that those who stayed for three weeks, or less found “client interactions” as most impactful, while those who stayed longer than three weeks perceived “immersion to culture” as the most impactful

capstone component. “Setting learning objectives and following through” was found as the least impactful for those who stayed for three weeks or less, while “mentorship from the site” was found as least impactful for those participants who stayed longer than three weeks.

Qualitative Results

In the professional practice domain, participants were prompted to provide qualitative responses to selected questions regarding the components of international doctoral capstone and their impact on their clinical practice and professional development. Three themes emerged from qualitative data analysis and were consistent with the quantitative data findings. The themes included (a) culture and cultural immersion, (b) building rapport with clients, and (c) professional growth. Table 4 provides a summary of qualitative themes with illustrative quotes from participants for each theme.

Theme 1: Culture and Cultural Immersion

A common thread throughout all qualitative data was culture. Most participants reported that through immersion in the local culture they learned to be more culturally sensitive and open to differences in the cultures. Participants also noted that gaining an understanding of differences in values and the meaning of independence of the cultures in which they were immersed, expanded their cultural competence. They described how their increased cultural competence has carried over to their clinical practice and gives them greater appreciation and respect for diversity.

Theme 2: Building Rapport with Clients

Most participants also highlighted the impact of client interactions on their ability to build rapport with their clients. Participants reported that they were encouraged to consider various factors that affected their clients’ treatment success. They had to learn how to communicate with their clients to build rapport and to learn about their social and physical environments. Participants indicated the need to find ways to connect with clients, despite language barriers, through reading body language and paying attention to environmental cues. Another rapport building strategy implemented was creating culturally appropriate interventions for clients, taking into consideration family involvement and environmental factors.

Theme 3: Professional Growth

Another theme consistently emphasized by participants was how their international doctoral capstone impacted their professional growth in various ways. Participants had hands-on experiences in challenging environments with limited resources, pushing them to think outside of the box and find creative solutions. This experience encouraged them to be open to leadership opportunities, accept feedback, increase their confidence, and improve program development skills. For example, several participants stated they were motivated to work on projects that could be left in the host country with limited resources. Several other participants expressed they gained confidence in giving evidence-based presentations and/or completing research projects.

Table 4

Qualitative Themes for Perceived Impact of International Doctoral Capstone on Clinical Practice and Professional Development (N=23)

| Theme | Illustrative Quotes |
|--------------------------------|---|
| Culture and Cultural Immersion | <p>“Better understanding of an individual's culture in relation to how a patient and their family will respond and accept treatment/education/training. I have found that an in-depth understanding of how culture plays into a patient's response to treatment has allowed me to better alter and modify my treatment plans to better fit the patient. The cultural competencies skills that I developed during that time transfer over into my practice when working with people of varying backgrounds and cultures.”</p> <p>“The cultural immersion placed me into new uncomfortable situations. I had to learn how to overcome these situations and adapt to the given population.”</p> |
| Building Rapport with Clients | <p>“Interacting with patients of different cultures in their own environment was incredibly educational. After experiencing life in China, from undrinkable water, pollution, crowded everywhere, as well as amazing food, incredible family support, and an old culture, I approach my patients differently, all of them. I try to really understand their home life, family dynamic, etc., and what environmental aspects of their life and how that will impact them and in turn our therapy sessions.”</p> <p>“It taught the value of meaningful connection and communication despite language or cultural differences. It helps build confidence to talk with, assess, and meet the needs of people from differing backgrounds.”</p> |
| Professional Growth | <p>“It was rewarding to leave something behind as we left and know we made a small change on their village. We did program development for the children's classrooms.”</p> <p>“Completing things outside of my comfort zone that made me a stronger practitioner.”</p> <p>“Another student and I at this site realized a need for increased documentation and we led the process for this, which was empowering.”</p> |

Discussion

This study examined the impact of international doctoral capstone experiences on the clinical practice of current OT professionals who had graduated from the Creighton University OTD Program. The findings suggest international doctoral capstone experiences are beneficial for professional development and cultural competence of OT practitioners. Overall, the findings are consistent with the previous literature and warrant in-depth discussions in the following three areas: (a) impact on cultural competence, (b) impact on professional development, and (c) components of international doctoral capstone (Bosworth et al., 2006; Domina & Doll, 2013; Flatow et al., 2019).

Impact on Cultural Competence

As participants gained exposure to diverse populations during their international, immersive experience they indicated heightened awareness of the impact clients' culture, socioeconomic status, familial roles, and spiritual beliefs had on overall health and well-being. Therefore, through reflection on their current practice, participants perceived the international doctoral capstone experience played a role in increasing their cultural competence or increased cultural humility. Participants noted the international capstone experience caused them to become more sensitive and open to diverse cultures, viewpoints, and lifestyles of the clients they serve.

The study findings also suggest the international doctoral capstone experience improved participants' ability to establish rapport with clients from diverse backgrounds. Participants indicated increased awareness of clients' non-verbal cues, as well as cultural beliefs and perceptions, familial roles and dynamics, and social and physical environments were especially important in situations where language was a barrier. Increased understanding and awareness to these factors caused participants to be more cognizant of how language and non-verbal communication, cultural norms and other variables factor into a clients' course of treatment. Recognition of the impact of these differences, now help participants to provide client-centered, holistic care and culturally appropriate interventions to ensure the quality of the care they provide.

Consistent with previous literature this study found international experiences had a positive impact on self-perceived cultural competence of the participants (Govender et al., 2017; Humbert et al., 2012; Keane & Provident, 2017; Lunsford & Valdes, 2020; Mu et al., 2010; Mu et al., 2016; Salls et al., 2019; Whiteford & St-Clair, 2002). The impact of international experiences on improvement of self-perceived cultural competence among other health care professionals has also been well captured by previous literature, particularly in nursing (Caffrey et al., 2005; Curtin et al., 2015; Edmonds, 2012; Kohlbry & Daughterty, 2015; Larsen & Reif, 2011), physical therapy (Oluwole-Sangoseni & Jenkins-Unterberg, 2017; Peiying et al., 2012), medicine (Flatow et al., 2019), and pharmacy (Steeb et al., 2020). The outcomes of this study expand on previous findings indicating international doctoral capstone experiences are likely to increase participants' perceived cultural awareness and cultural sensitivity, which can

have a positive impact on health care delivery to diverse populations. To prepare culturally responsive OTs, academic programs should develop, incorporate, and thus emphasize the importance of culturally sensitive concepts and opportunities throughout their curriculum.

Impact on Professional Development

While there is sufficient evidence pinpointing the impact of international experience on cultural competence of healthcare professionals, there is a dearth of literature examining the contribution of international experience to overall professional growth (Mashizume et al., 2020; Mu et al., 2016). Therefore, this study set out to assess international capstone experience on the development of professionalism skills in addition to cultural humility. Participants correlated their international experience with professional growth due to experiencing novel environments, limited resources and variable mentorship which led to their need to adapt and grow, maximizing their success with meeting their doctoral capstone learning objectives. Further, study participants were encouraged to be innovative and think outside of the box to be able to fulfill their role as a clinician. The outcomes are important to note as they demonstrate the participants' professional growth beyond cultural humility. While the data related to international experiences contributing to professional growth and professional development is limited, this study is consistent with previous studies that noted how cross-cultural academic programs positively impact the personal and professional development of OT students (Mashizume et al., 2020; Mu et al., 2016). Considering the growth of professional skills and behaviors, academic programs may consider encouraging cultural immersion experiences to elicit growth in these areas.

Capstone Components

This study also examined the most and least impactful components of international doctoral capstone experiences on OT graduates' current professional practice. Immersion in international culture and interactions with clients were highlighted as the most beneficial components for multiple areas of professional practice by participants. Additionally, the study also found the duration of an international doctoral capstone experience influenced participant responses. Participants who spent less than 3 weeks in an international setting reported client interaction as the most impactful aspect of their experience, while those who stayed longer than three weeks reported cultural immersion as the most impactful component. This suggests international doctoral capstone experiences longer than three weeks create the greatest impact on participants' perceived cultural competence and professional development. Sim and Mackenzie (2016) found a similar trend in their qualitative study of graduate OT students who completed a seven-week fieldwork placement in a developing country, noting culture permeated every category of their findings where participants were immersed in all aspects of the local culture, values, and practices. While the Sim and Mackenzie study focused on Level II fieldwork, the data from this study corroborates the length and impact of an immersive, international cultural experience.

The components rated as least impactful to participants were limited mentorship and developing learning objectives in advance. Qualitative data qualified these results as participants described difficulty with implementing their plans once on site due to unforeseen resource limitations once they arrived. Additionally, participants described a need to adapt their doctoral capstone plans with limited or variable mentorship. Some respondents indicated having mentors who were not OTs, and many reported a need for greater independence across revising their capstone plan or objectives and with adapting their implementation to fit the needs of the site or the parameter in which they were limited. There is limited evidence from the OT literature to support these findings.

Similar to our study, in a study by Simonelis et al. (2011) participants expressed frustration with limited support from the site mentors. Similar challenges were registered in speech and language pathology literature. In a study by Trembath and colleagues (2004), participants noted that their experience with international rotations was challenging and they felt isolated due to lack of support. In relation to mitigating least impactful capstone components, OT programs may consider developing training for non-OT site mentors and a model to walk students through revising their capstone plan should conditions or resources be different than expected once they arrive to their international rotation site. As with the most impactful components, the ratings of the least impactful components of the international capstone experience were impacted by duration, or length of the capstone experience. Participants who spent three weeks, or less internationally rated learning objectives and following through as least impactful. Conversely, those who spent more than three weeks abroad identified mentorship from the international site as least impactful. The difference in rating could be attributed to the impact of the learning objectives on the overall rotation. Meaning, students who stayed three weeks or less would have a capstone plan with fewer components impacted by unexpected changes. Additionally, as noted in the results section, approximately half of the students completed an international rotation in the Dominican Republic, where the university has long-standing ties, structured programming, and university-sponsored occupational therapists who join the students in the experience. For the students who were at their international site longer than three weeks, having variable mentorship or non-OT mentorship could certainly impact the student's perception of the overall positive impact during the rotation.

The outcomes of this study are significant as they demonstrate that various components of the international doctoral capstone may differently affect the development of participants' cultural competence, or responsiveness and professional skills. While we did not collect the data on types of organizations students chose for their international doctoral capstone, it is important to note the type of international doctoral experience students have can significantly impact their experience and project outcomes. It is important for academic programs to take into account the types of organizations students are working with in order to provide pre-teaching regarding what to expect or strategies for adapting if the site or mentor does not meet expectations. In addition to length of the experience and the student's travel history and background, there are

many aspects of the international capstone experience and planning process that should be considered: level of mentorship versus student expectations for mentorship, availability of resources versus student expectations or 'hopes', mentor expertise and supports for the mentorship relationship, the overarching focus of the student doctoral capstone plan, the specificity and feasibility of the learning objectives, and the practicality and rigor of their capstone plan.

Implications for Occupational Therapy Education

The findings from this study can be applied to improve outcomes in OTD education. The doctoral capstone experience is an individualized component and a vital element of entry-level OTD programs (Case-Smith et al., 2014). There is limited literature available on the outcomes of the doctoral capstone, but the doctoral capstone is a unique experience that promotes advancement in the profession (Kemp et al., 2020). International capstone experiences, specifically, may be an effective educational pedagogy that supports the American Occupational Therapy Association's Vision 2025 to provide accessible, inclusive, equitable, and customized services for all through embracing diversity (AOTA, 2020). Researchers of this study acknowledge there is great value for involving OT students in international capstone experiences as it can support their professional development along with their cultural competence. OTD programs may consider the following when developing their doctoral capstone curriculum regarding the benefits or an international experience:

- OTD programs should provide opportunities for students to complete their doctoral capstone internationally to foster the development of core AOTA values and principles.
- OTD programs should consider providing international doctoral capstone experiences for durations that allow students to fully immerse into local culture to improve cultural competence outcomes as evidenced in the study by students who engaged in three weeks or more of international experience.
- OTD programs should encourage students to develop a doctoral capstone focus that emphasizes the key skills that may be developed through an international experience such as leadership, advocacy, cultural competency and professional growth.
- OTD programs should consider examining the impact of international doctoral capstone experiences on participants' long-term professional development.

Limitations and Future Research

This study was limited to a convenience sample of OT alumni who graduated from Creighton University. There was a paucity of diversity in the sample as all participants were Caucasian females. An additional limitation is that the survey instrument has not been validated. Moreover, recall bias should be noted as a limitation of the study as the participants were asked to report about their past experience. An additional limitation is that the study findings reflect only the perspectives of OT professionals who completed their international capstone experience in an international setting and does not take into consideration the perspectives of their site mentors or the impact of the experience on the international site. Future research should include a larger, more representative sample and examine the views of both OT alumni who did and did not complete an

international capstone experience to determine how perceived cultural competence impacts professional development. Further research should also examine the longitudinal outcomes of the international doctoral capstone on professional practice. Finally, future research should explore the impact of the international capstone experience on the international partner sites and mentors.

Conclusion

Providing culturally responsive and individualized services, and being influential in changing policies, environments, and complex systems, are highlighted as the key pillars of AOTA's Vision 2025 (AOTA, 2020). To fulfill this vision, the OT profession should emphasize training the next generation of OT professionals to understand the importance of culturally responsive and high-quality care for all. Our politically and socially dynamic society requires professionals who are equipped to lead in and adapt to ever-changing healthcare environments. Intercultural learning experiences, such as international doctoral capstone experiences, are an important aspect of OT education that can foster the next generation of clinicians to be prepared for practice in diverse communities. This study's findings reveal that the international doctoral capstone experience is one avenue that can advance OT students' cultural competence and professional development skills.

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