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## Transformation Toward Cultural Competence: Occupational Therapy Students' International Immersive Experiences

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## Transformation Toward Cultural Competence: Occupational Therapy Students' International Immersive Experiences

### Cover Page Footnote

Acknowledgement: The authors would like to thank Dr. Max Buot for his assistance with the statistical analysis of our study.

# Transformation Toward Cultural Competence: Occupational Therapy Students' International Immersive Experiences

Diane Ceo-DiFrancesco,  
Leah S. Dunn, and Gina Deaton

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## Abstract

International immersion learning experiences can be impactful, even transformational, if properly implemented to include opportunities for critical reflection. Research suggests that programs that thoroughly integrate continuous reflection promote development of the knowledge, skills, and attitudes necessary for growth in cultural competence. Critical reflection allows for examination of complex social issues and challenges students to think beyond their own social realities. This project focused on the development of cultural competence in preprofessional undergraduate occupational therapy students through participation in an immersive learning program in Guatemala. Specifically, a mixed-methods approach, including a quantitative measurement tool and qualitative analysis of student reflections during the immersive program, was utilized to measure the development of cultural competence. Results of pre- and postexperience cultural competence development as measured by the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals–Student Version (IAPCC-SV) are reported. Qualitative analysis of reflection sessions audio-recorded over the 2-week immersion program period revealed student descriptions of dissonance, transformative learning, and the shaping of social action as it pertains to their future practice as occupational therapists. Furthermore, reflections emphasized the importance of building relationships, both within the learning group and with members of the local target community, to support student development through this transformative learning process.

As the population in the United States becomes increasingly diverse, preparing students to provide culturally responsive care in the context of occupational therapy is paramount to ensuring positive health outcomes. Preparation models focusing on the development and enhancement of intercultural competence through curricular integration at the local level (Murden et al., 2008) and through global immersion experiences (Crowe et al., 2016; Mu et al., 2010) reflecting varying degrees of impact (Cipriani, 2017). While exposure to diverse populations locally can lead to short-term increases in cultural awareness, the depth and intensity of an international learning experience may lead to transformational learning. Carefully planned and facilitated experiences, including interactions with the local community and culture followed by guided reflection, can serve as a foundation for this kind of growth. The purpose of this study is to explore the impact of an immersive learning experience in Guatemala on the intercultural competency development of preprofessional undergraduate occupational therapy students. The research question guiding

this mixed-methods study was: What is the growth of intercultural competence as a result of a 2-week immersion program in Guatemala?

The development of cultural competency is an ongoing and lifelong process involving cultural knowledge, skills, and awareness, promoted and encouraged by increased cultural desire while engaging with other cultures (Campinha-Bacote, 2007). Campinha-Bacote's (2007) theoretical framework of culturally competent health care delivery establishes the underpinnings of this study. Using this framework as a point of departure, we argue that immersion in a culture distinct from one's own and the processing provided by authentic group reflections are necessary components to the growth of intercultural competence. We examined the unique role of these components in order to identify an appropriate and effective means of enhancing the development of intercultural competence among occupational therapy students. Our hope is that these culturally competent students will be able to offer culturally responsive care as practitioners and thus positively affect future patient outcomes.

## **Occupational Therapy Education of Cultural Competence**

To uphold the professional value of providing client-centered care, one must practice in a culturally competent manner (Murden et al., 2008). As our health care environment continues to expand in diversity, occupational therapy academic programs are increasingly focusing on developing students' cultural competency to prepare the future generation of occupational therapy practitioners. A focus on cultural competence is present but limited in the didactic portion of occupational therapy programs (Kale & Hong, 2007; Murden et al., 2008). These studies and Sotelino Losada et al. (2019) have suggested that interactions with individuals from diverse backgrounds through fieldwork, service-learning, or immersion experiences are crucial for students' development of cultural competence. Additionally, Tejada (2013) argued that what students learn in the classroom is not enough; they must venture out into contexts where they can coexist with people of other cultures in order to improve their cultural competence. Discussing cultural competence in a classroom is much different from the experience of engaging with others of different cultures, backgrounds, and perspectives. In fact, not only is it important to engage with different cultures, but it is also part of a student's social responsibility and active citizenship as a future professional to do so (Tejada, 2013).

While the spotlight on cultural competence in the classroom lays a foundation for continued learning, its effect on students' actual development of cultural competence has been inconsistent. Davis-Cheshire and Crabtree (2019) found that 93% of students enrolled in a pediatric course with activities focused on culture demonstrated increased cultural competence by the end of the course. Yet, a curricular thread focusing on cultural competence throughout a 3-year program did not increase students' cultural competence (Boggis, 2012).

To connect cultural competence to occupational therapy practice, Muñoz proposed a model of culturally responsive care including components of cultural awareness, cultural knowledge, cultural skills, and cultural desire, all considered within a culturally diverse environment (2007). Using Muñoz's model, Talero et al. (2015) proposed a model of culturally responsive caring in occupational therapy embedded in service-learning, which aims to guide educators

in providing cultural competence information to students. This model pairs service-learning with student reflection to help students develop the skills necessary for delivering culturally responsive care in practice.

### *International Experiences*

Global service-learning and community-based global learning can increase intercultural learning and cultural humility and can enhance students' desires for civic engagement (Hartman & Kiely, 2014). These experiences can vary in terms of location, duration of the experience, and the activities that incorporate direct service to and engagement with the local community (Amerson, 2014; Cipriani, 2017; Hartman et al., 2018). The personal and professional benefits of such programs prepare students for many aspects of work and general life as active citizens (Kiely, 2011). However, researchers caution against superficial volunteer experiences that reinforce stereotypes and harm local communities (Nelson, 2010; Simpson, 2004). Instead, programs that emphasize carefully planned experiences fostering critical reflection are better suited to facilitate deep student learning (Ceo-DiFrancesco et al., 2020; Kiely, 2015). These experiences must include program planning involving mutuality, respect, and intentional engagement with a local community partner (Hartman & Kiely, 2014; Kiely & Nielsen, 2003).

In an effort to give students the opportunity to interact with different cultures, many occupational therapy education programs have developed international service-learning, study abroad, and global immersion experiences. International immersion programs have been cited as an impactful means of progressing along the lifelong journey of cultural competence (Govender et al., 2017). While cultural competence is a highly personal trait, most studies are qualitative in nature, with small sample sizes limiting the transferability of the results. Nevertheless, student growth has been reported. Suarez-Balcazar et al. (2015) proposed that international experiences prompt changes in students in three areas: psychological, evidenced by changes in their understanding of self; convictional, as students revisit and edit their belief systems; and behavioral, demonstrated by students' actions. Other studies have found that students increased their cultural awareness (Humbert et al., 2012) and cultural desire (Aldrich & Grajo, 2017). Additionally, through the altered state of participating as the minority culture during

an international experience, students developed empathy for others (Mu et al., 2010) and had an increased desire to give back to the community (Humbert et al., 2012). Most significantly, students indicated that developing and maintaining cultural competence requires continued learning (Govender et al., 2017).

### *International Fieldwork*

International fieldwork affords students the opportunity to apply clinical skills in a different culture; it is a period of clinical training in a location other than the United States, supervised by an occupational therapist who is a graduate of a World Federation of Occupational Therapy–approved program. Through participation in an international fieldwork experience, students have reported gains in not only therapeutic skills but also cultural negotiation and independent thinking skills (Simonelis et al., 2011). Furthermore, Sonn and Vermeulen's (2018) study indicated student learning regarding the necessity of separating one's personal culture from that of the client in order to provide culturally responsive care. While many international fieldwork students have reported expanding their clinical and cultural knowledge and skills, many also have experienced a change in attitude from the insights that grew through reflection. This attitude change includes recognition of their part in changing society (Sim & Hons, 2016).

### *Reflection*

During immersion experiences, students realize that they have become part of a minority culture. For many students, especially those who are part of the majority culture in their home environment, this represents a major change. The context in which they are interacting and experiencing learning—encompassing not only basic needs and linguistic challenges but also academic and preprofessional situations—is completely distinct from what they are accustomed to in their home culture. Due to these abrupt changes in context, students may experience periods of discomfort that progress to major dissonance as they compare the host culture to their own. Mezirow (1997) stated that these periods of dissonance are necessary for transformational changes in perspective and that students may require supportive facilitation and reflection to process these uneasy emotions and feelings. Without a supportive learning environment and reflection, dissonance can lead to negative

reinforcement of existing stereotypes instead of transformative learning resulting from new or altered perspectives (Cranton, 2016). Whitney and Clayton (2011) argued that reflection is a crucial part of service-learning due to the intensity of the experience and that students need help to process all that they have experienced in order to understand and learn. Zafran (2020) emphasized the importance of reflection to connect lived experiences with learning objectives.

Furthermore, Ceo-DiFrancesco et al. (2020) justified the use of student-led reflections in real time during an international immersion experience. Student-led reflections allowed students to contemplate and process their experiences of dissonance within the safe and supportive environment of their peers, creating the context of a positive community of learners. The safe environment allowed students to process emotions and reorganize their perspectives, leading to effective growth in cultural awareness.

Not only does reflection during an international immersion program help students process their experiences, but it also provides them with a way to apply the insights they have gained, helping them become more skillful learners in the process (Schön, 1983). Chwialkowska (2020) found a direct relationship between students' self-reflection and cross-cultural learning during an international immersion experience. Kinsella (2001) proposed reflection as an important part of practitioners' lifelong learning as students carry forward their reflected-upon experiences in their future practice. Additionally, reflection is a stage of Kolb's (1984) model of experiential learning, which states that learning begins with an active experience. Individuals then reflect on that experience to reorganize their perspective and finally integrate the knowledge gained with other experiences.

### *Program Description*

The occupational therapy department at a midwestern, private, Jesuit university chose to create an immersion and service-learning program in Guatemala to address the objective of preparing preprofessionals to work effectively and appropriately with diverse populations. Guatemala was the chosen site of the experience due to the growing Latinx population in the United States and because of the growing number of Guatemalan migrants choosing to settle in the greater metropolitan area where the university is located.

The program and its objectives clearly aligned with the mission of the university. Specifically, they reinforced and emphasized the Jesuit educational values of *cura personalis* (education of the whole person), reflection, discernment, solidarity and kinship, service rooted in justice and love, and *magis* (decisions for the greater good; Currie, 2010). These values formed the underlying basis for the student learning outcomes and were the guiding principles of the program's design and implementation.

Practitioners from the United States included five occupational therapists and one physical therapist. These professionals participated in 1 week of service-learning. Guatemalan community partners benefited from the occupational therapists' guidance and from care plans that were created collaboratively among Guatemalan and U.S. therapists and students. These care plans were translated into Spanish for practitioners, caregivers, and clients alike so that treatment could continue beyond the service-learning experience. Professional development through collaborative treatment was also offered to community partners and practitioners in Guatemala.

Two courses, one in Spanish and the other in occupational therapy, supported the 2-week in-country immersion and service-learning experience. The Spanish course, Language and Culture in Guatemala, focused on equipping students with both the linguistic knowledge they would need to engage effectively and appropriately in Spanish in clinical settings and an understanding of the practices and perspectives of the target cultures. Intensive class sessions prior to international travel included synchronous virtual language and cultural exchanges with students in Guatemala as well as an extensive overview of historical, social, and cultural aspects of the country. The students' first week in Guatemala included an immersion experience, family home stays, and multiple opportunities for students to engage in Spanish with Guatemalans from diverse backgrounds in a variety of contexts. The occupational therapy course, Occupational Justice II is a required course that emphasizes social justice issues and their impact on occupations, quality of life, and practitioners' interactions with diverse populations. Students participated in service-learning during their second week of the in-country experience, working in clinics and homes for children and adults with developmental disabilities. The students served in a supportive role, taking notes and photographs, creating

care plans, and assisting U.S. therapists working alongside Guatemalan therapists following a train-the-trainer model.

### Participants

A convenience, purposive sample was used, with the same participants providing both the qualitative and quantitative data. Participants included 14 undergraduate occupational therapy students participating in a 2-week intensive immersion international program to satisfy the 30-hour service-learning requirement for an occupational justice course. Students were all female and between the ages of 20 and 22 years old.

### Method

With the university's institutional review board approval and participant-informed consent, the study used longitudinal mixed methods (Corcoran, 2017; Plano Clark et al., 2015) of qualitative analysis to study student-led reflective groups, with participants completing the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals–Student Version (IAPCC-SV) before the program, at the end of the 2-week in-country period, and 3 months after the immersion experience (see Figure 1). This study is a follow-up to a qualitative study on student reflections during an international immersive experience (Ceo-DiFrancesco et al., 2020). In our study, the quantitative measure (IAPCC-SV) calculated the degree of intercultural competence growth described in the reflective narratives.

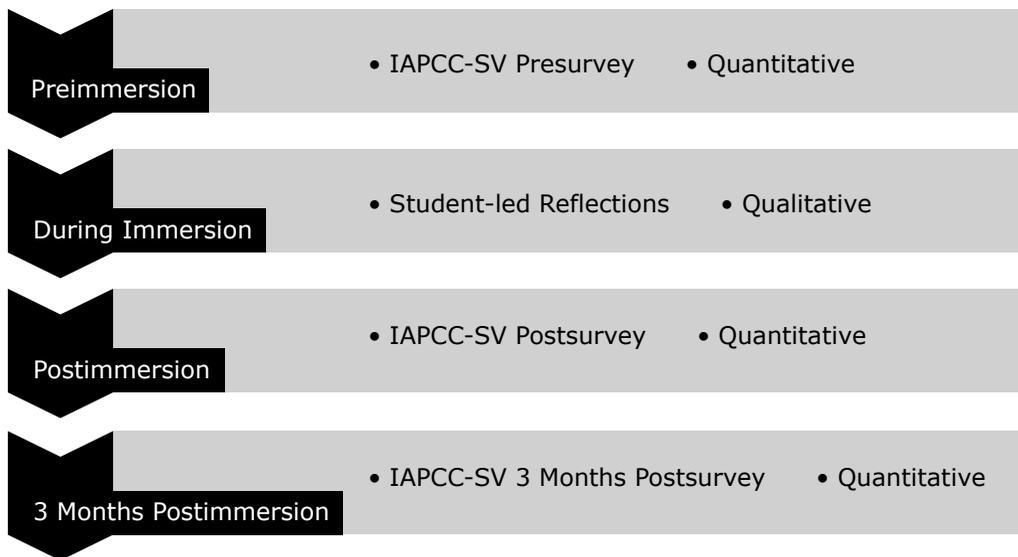
### Procedures

As shown in Figure 1, the same participants provided both qualitative and quantitative data. Qualitative data came from in-country, student-led reflection sessions, which were recorded and transcribed by a student research assistant. Quantitative data included students' scores on the IAPCC-SV before the program, at the end of the program, and 3 months after the conclusion of the program. Participants were not available on campus after the immersion experience until they returned for the fall semester 3 months later. The 3-month follow-up period was chosen due to the university's academic calendar, and the IAPCC-SV was administered for the third and final time when the participants returned for fall classes.

### Student-led Reflections

Qualitative data was collected from student-led reflection sessions that were facilitated by students

**Figure 1.** Data Collection Process



in response to student-determined discussion prompts. Prompts included identifying moments of positive and negative emotions, incidences of dissonance (Mezirow, 2000; Mitchell & Paras, 2018), experiences during which participants felt like a tourist versus a sojourner (Byram, 1997, 2012), and feelings of transformation (Cranton, 2016). Specific prompts are included in Table 1. Reflections took place nightly for 13 days over the 2-week program. All reflections were audio-recorded, and their lengths ranged from 14 to 50 minutes long. Furthermore, the combined length of audio recordings was 8.5 hours, which, when transcribed, became 133 pages and 74,295 words.

*IAPCC-SV*

Quantitative data was collected through the IAPCC-SV, a 20-item survey measuring the degree to which students reported agreement or disagreement with the constructs of the Campinha-Bacote model (2007) on a 4-point Likert scale (ranging from *strongly agree* to *strongly disagree*). This measure has good reliability and validity (Fitzgerald et al., 2009). Constructs measured by the IAPCC-SV include cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire, and the survey provides an overall score of cultural competence. Scoring indicates student respondents’ degree of cultural competence in order of increasing competency levels: from culturally incompetent to culturally aware, culturally competent, and, at the highest level, culturally proficient.

Campinha-Bacote’s (2007) model of cultural competence for health care professionals is presented as a process that incorporates cultural desire, cultural awareness, cultural knowledge, and cultural encounters, as illustrated in Figure 2. Cultural competence begins with *cultural desire*, or a desire to be culturally competent, and is based on the values of caring and human dignity. *Cultural awareness* is an affective or attitudinal construct and requires reflection on one’s own biases. *Cultural knowledge* is the acquisition of knowledge about culturally diverse groups to inform one’s clinical practice. Clinicians with *cultural skill* utilize their desire, awareness, and knowledge to guide them in collecting culturally relevant information to provide appropriate client care. Finally, *cultural encounters* are practitioners’ interactions with culturally diverse clients.

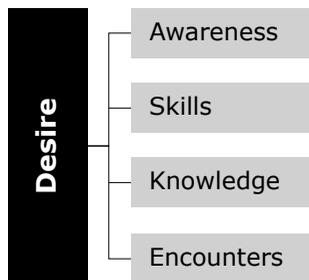
*Data Analysis*

**Qualitative analysis.** The research team performed a content analysis of the student-led reflection transcripts. Each researcher read the transcripts with the intent of determining the smallest unit of meaning (Merriam & Tisdell, 2016). The research team determined final codes with operational definitions. With the aid of HyperResearch (4.0.3), a computer-assisted analysis program, all data were coded. Further reduction of data occurred in three cycles: descriptive memos, analytic memos, and finally themes.

**Table 1.** Reflection Prompts

What was the high and low point of your day?
What moments of discomfort or dissonance did you experience today (Mezirow, 2000; Mitchell & Paras, 2018)?
In what moments did you feel like a tourist today, and in what moments did you feel like a sojourner (Byram, 1997, 2012)?
What moments of transformation did you experience today (Cranton, 2016)?

**Figure 2.** Campinha-Bacote’s (2007) Model of Cultural Competence



**Quantitative analysis.** For the quantitative analysis, the IAPCC-SV data were scored to determine each student’s level of cultural competence, and descriptive statistics were generated. Using SPSS (version 24), inferential statistical analysis included a one-way repeated measures analysis of variance (ANOVA) to determine the differences among IAPCC-SV scores prior to, at the conclusion of, and 3 months after the immersion experience.

**Results**

*Qualitative Results*

Five themes emerged from the analysis of nightly reflections, creating a trajectory that the participants demonstrated along their journey toward cultural competence. The five themes were *immersion, comparison, reaction, transformation, and action*. See Figure 3.

The first theme was *immersion*. Immersion describes the experiences that students encountered upon arrival and throughout their

stay in Guatemala. Many students expressed discomfort and culture shock after being placed in a culture entirely different from their own. One student shared, “You can only learn so much from a textbook, but to actually immerse yourself in a culture, you learn so much” (Participant 12). Furthermore, immersion was a crucial first step in the trajectory, leading participants toward the second theme, *comparison*.

After arriving in Guatemala, the participants immediately began to compare Guatemalan culture with their own culture and became aware of differences. The majority of students came from a privileged country and backgrounds, making their comparisons more drastic. For example, participants noted qualities of Guatemala City, such as extreme poverty, that may also exist in their home environment but that they had not experienced previously. As one student shared, to be engaged with another culture encourages more comparisons to one’s home context.

I feel like coming on this trip made everything more real because you can actually compare it and see how attitudes are in the United States versus Guatemala, and yeah we read about it and learn about it but you never really experience how it really is, so I feel like it is really eye-opening. (Participant 2)

The third theme was *reaction*. After being immersed and comparing the cultures of Guatemala and their home country, the participants reacted to what they had observed. They shared many moments of dissonance that gave rise to an array of emotions. They experienced frustration and anger when they learned about injustices in Guatemala, especially those that affect people with disabilities. They experienced gratitude when they realized their privilege, especially in regard to the access they have to resources in the United States and the fact that the majority of Guatemala's population does not have that same access. One participant saw how malnutrition during children's critical formative years can have lasting effects that extend into the later years of children's lives. She shared:

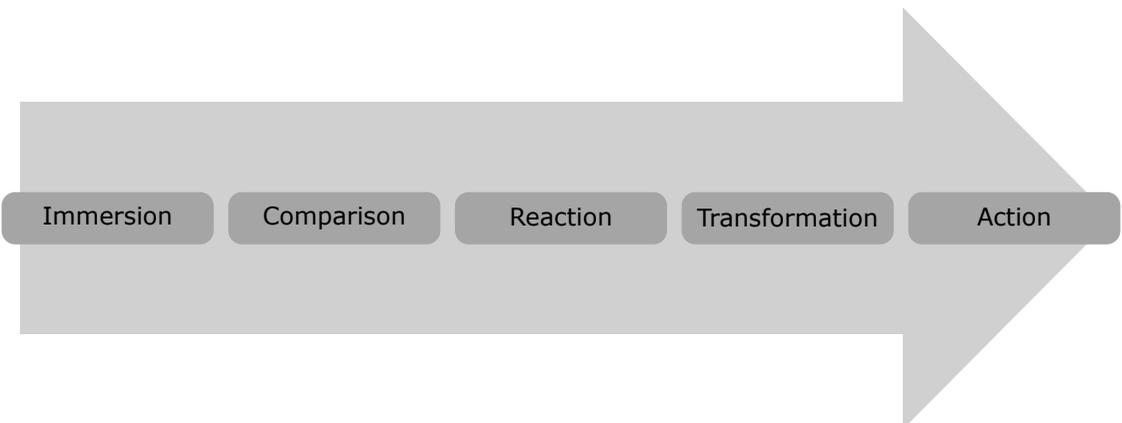
I knew that Guatemala was a country that I would consider to be malnourished, but actually seeing the effects that has on a child is something that I will never forget. Or neglect, and how that affects a child... You can read about that and know that is something that exists in the world,

and think you understand that because you have read it, but then you actually see it...just knowing that is something that happens and being aware of that now is something that will always make me upset. (Participant 4)

The fourth theme was *transformation*. After being immersed, comparing the cultures, and reacting to what they had learned, the participants described experiencing internal change. They expressed more gratitude, a change in perspective, and an increase in self- and cultural awareness during the 2-week program. They experienced Guatemalan culture firsthand through direct interaction with Guatemalans. Additionally, students expressed an increase in empathy toward in-country clients as a result of these interactions. One student shared how the program had changed her:

I feel like a totally different person. I think just like, learning the new culture and learning a new language and therapy and all of that, I just feel like I have grown so much as a person, and I was actually thinking yesterday, I don't feel like we are done here, and I never thought I would have felt like that at the end of this trip, if you had asked me two weeks ago. (Participant 3)

**Figure 3.** Trajectory of Student Transformation



The fifth and final component of the trajectory was *action*. After experiencing internal change, participants expressed a desire to act on their transformative learning experiences by supporting the people that they met in Guatemala. They also explored what action they could take upon return to their home culture and country. For example, some students shared an awareness of wasting natural resources because resources are so readily available in their home communities. After visiting a country with limited natural resources, students felt compelled to conserve and urged others to do so as well. One student summarized her feelings at the end of the program:

I feel like going into this, I knew it would definitely be a change of pace and a challenging situation just being in another country, and I was a little worried [that] even though my heart was in the right place, I would have a moment of just feeling withdrawn or not being able to act, and so just seeing all the changes that we have gone through and meeting new people, I feel like that will continue to propel me forward. (Participant 6)

Student reflections thus illustrated the intensity and depth of their experiences during their immersion and demonstrated a trajectory of development.

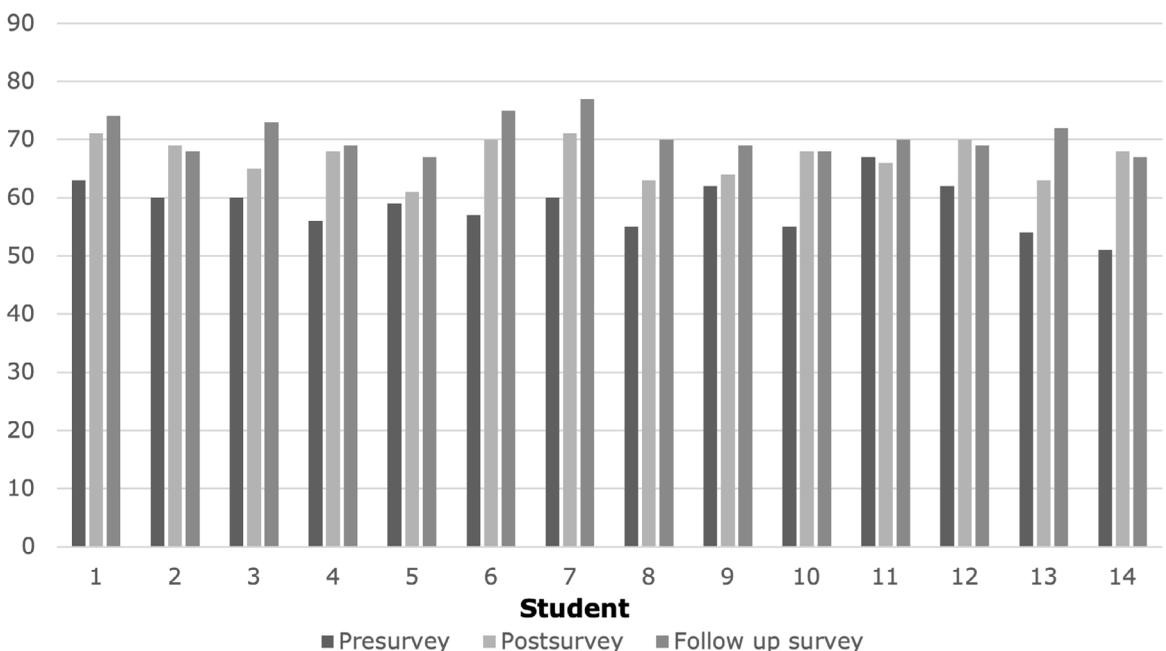
#### *Trustworthiness of Qualitative Results*

The authors took several measures to ensure the trustworthiness of this study, using strategies suggested by Krefting (1991). First, to remove bias, three researchers were utilized. Thus, a triangulation of researchers took place, as each researcher read the reflection transcriptions a total of three times and coded the transcripts simultaneously for the most accurate results. In addition, the recorded reflections were transcribed verbatim, leaving no room for misunderstanding. The authors trust that the participants' reflections are authentic representations of their experiences. To provide a context for the transcripts, one researcher kept a field journal documenting expressions of feelings, moods, attitudes, and reactions that may not have been caught on the recordings. Therefore, our results represent the authentic development of student cultural competency.

#### *Quantitative Results*

Using Campinha-Bacote's 2007 model of cultural competence, scores on the preimmersion IAPCC-SV indicated that students' levels of cultural competence were distributed evenly between being culturally competent and culturally aware. After the 2-week immersion program, all students scored as culturally competent. The two participants who scored at the highest level, culturally proficient, on the 3-month postexperience survey had scored at the culturally aware level prior to the experience,

**Figure 4.** IAPCC-SV Score per Student



indicating development across two levels of the Campinha-Bacote model. See Table 2 and Figure 4 for details.

Figure 5 illustrates the change in cultural competence as measured by the IAPCC-SV before, after, and 3 months after the experience. All students' scores indicated cultural competence growth at the immediate conclusion of the immersion experience. When comparing students' responses before the experience and 3 months after the experience, all students demonstrated a positive change in IAPCC-SV scores, indicating cultural competence development.

A one-way repeated measures ANOVA was conducted to determine whether the differences in scores were statistically significant across the three administrations of the IAPCC-SV (pre, post, and 3 months post). There were no outliers and the data was normally distributed, as assessed by boxplot (See Figure 4) and the Shapiro–Wilk test ( $p > .05$ ), respectively. The assumption of sphericity was met, as assessed by Mauchly's test of sphericity,  $\chi^2$

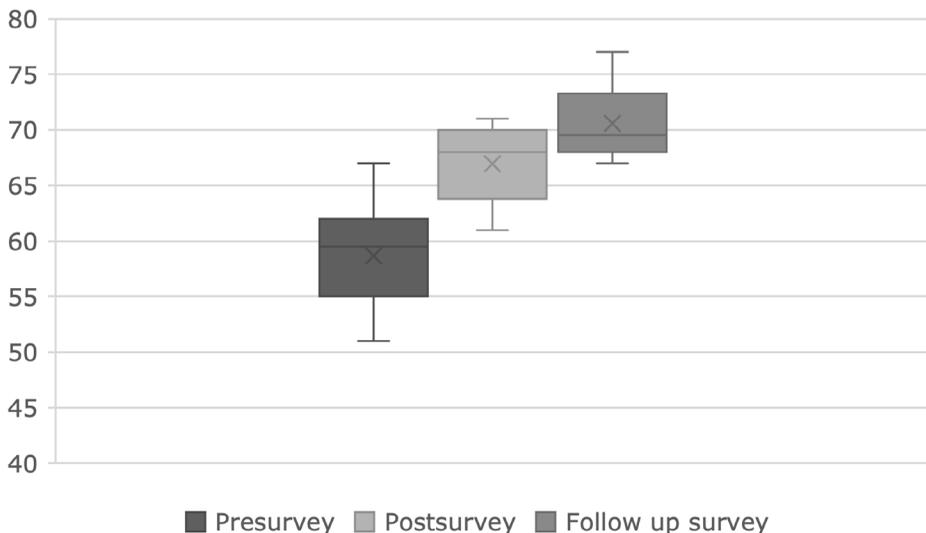
= 1.91,  $p = .386$ . There was an increase in IAPCC-SV scores from preexperience ( $M = 58.64$ ,  $SD = 4.25$ ) to postexperience ( $M = 66.93$ ,  $SD = 3.27$ ), a statistically significant mean increase of 8.29 points,  $SE = 1.32$ ,  $p < .05$ . Additionally, there were statistically significant differences in IAPCC-SV scores from postexperience ( $M = 66.93$ ,  $SD = 3.27$ ) to 3 months postexperience ( $M = 70.57$ ,  $SD = 3.13$ ), an increase of 3.64 points,  $SE = .035$ ,  $p < .05$ . Consequently, a statistically significant mean increase of 11.93 points,  $SE = 1.26$ ,  $p < .05$ , was found between the preexperience and 3-month-postexperience scores.

Post hoc analysis with a Bonferroni adjustment revealed that IAPCC-SV scores increased from preexperience to postexperience (8.23 points, 95% CI [4.65, 11.92],  $p < .0005$ ), from preexperience to 3 months postexperience (11.93 points, 95% CI [8.47, 15.39],  $p < .0005$ ), and from postexperience to 3 months postexperience (3.643 points, 95% CI [1.08, 6.21],  $p < .0005$ ; Laerd Statistics, 2015). See Table 3.

**Table 2.** Participant Level of Cultural Competence (Campinha-Bacote, 2007)

	Incompetent	Aware	Competent	Proficient
Presurvey	0	7 (50%)	7 (50%)	0
Postsurvey	0	0	14 (100%)	0
Postsurvey 3 months	0	0	12 (86%)	2 (14%)

**Figure 5.** IAPCC-SV Scores across Administrations



**Table 3.** Multiple Comparisons

IAPCC-SV	Mean difference	<i>p</i> value
Pre-post	8.29	.000*
Post-3 months post	3.64	.000*
Pre-3 months post	11.93	.000*

\*Significant at the  $p < .05$  level

The results indicated statistically significant differences among the scores from the three administrations of the IAPCC-SV. Therefore, the data provide evidence of increasing levels of cultural competency, beginning before the international immersion experience and continuing until 3 months after the experience.

#### Limitations

No research is without limitations. A small and homogenous sample size ( $N = 14$ ) included only female students enrolled in a small, midwestern, Jesuit Catholic university in the United States. This study was context-specific to the countries of the United States and Guatemala as well as the languages of English and Spanish. Additionally, there are inherent biases in self-report measures. These factors limit the generalization of the results to other sample populations.

#### Discussion

Both Campinha-Bacote (2007) and Muñoz (2007) have described cultural competence as a lifelong developmental process. A desire to develop cultural competency is proposed as a first step in that developmental process (Campinha-Bacote, 2007). With desire comes an awareness of cultural factors (Campinha-Bacote, 2007; Muñoz, 2007), requiring comparison of new perspectives to previously held assumptions through the process of reflection. This comparison generates new cultural knowledge as students process their emotional responses to the mismatched perceptions. Research regarding transformative learning in adult students (Chwialkowska, 2020; Cranton, 2016; Mezirow, 1997; Taylor, 2009; Zafra, 2020) cites reflection's key role in individual student transformation, for it is through reflection that adult students come to terms with the discomfort and dissonance they experience. Furthermore, they develop new perspectives based on the

examination of viewpoints distinct from their previously held assumptions, judgments and values. Thus, reflection can be identified as a necessary component of transformative learning during an immersion experience. Ceo-DiFrancesco et al. (2020) confirmed the use of student-led reflection during an international immersion experience as the key means by which participants processed periods of dissonance within a safe environment, allowing them to develop new perspectives and to increase their cultural awareness.

While our results did not disclose the development of cultural skills, the intensity of an international immersion experience can motivate students to continue in their development of cultural competence and to utilize their new cultural knowledge to provide culturally responsive care. Campinha-Bacote (2007) and Muñoz (2007) differed in their descriptions of cultural competence actions. Campinha-Bacote (2007) described cultural competence as a type of patient encounter, while Muñoz (2007) described the concept of culturally responsive care as a manifestation of desire and future action with increased awareness, knowledge, and skills. Our results indicated a transformation with a focus on future advocacy on behalf of marginalized populations.

The impact of the international immersive program on student cultural competence was statistically significant from the beginning to the end of the experience, from the beginning of the experience to 3 months after the experience, and most interestingly, from the end of the experience to 3 months after the experience. While researchers did not track participants' activities over the summer months, this increase in cultural competence scores indicated a continued development of cultural competence consistent with Campinha-Bacote's (2007) lifelong developmental model. The high-intensity dissonance provided by a

global immersion—including the communication barriers, challenges to physical needs, increased emotional adjustments, and comparisons made to one's home culture—can create a greater impact and have long-lasting effects. However, Short et al. (2020) reported a statistically insignificant long-lasting effect on cultural competence among occupational therapy doctoral students who attended immersive learning experiences in Haiti, Guatemala, or Romania at 6-month, 1-year, 2-year, and 3-year follow-ups. While students' scores on the Cultural Intelligence Scale follow-up surveys were greater than baseline, the differences were not statistically significant. Any comparison of our study results with those of Short et al. (2020) should consider the differences in the two studies' chosen cultural competence measures and immersive learning experiences.

As stated previously, the use of the IAPCC-SV calculated the degree of growth in intercultural competence over time and serves to support the intense experiences expressed during student-led reflections and the thematic trajectory gleaned through qualitative analysis. The growth of intercultural competence was significant from preexperience to postexperience as well as from postexperience to 3 months later. This measure confirmed student reflections on the impact of their immersive experience as it related to their desire to continue to act on their learning by advocating for marginalized populations. Additionally, the administration of the IAPCC-SV at 3 months after the experience allowed the reporting of postexperience data with ease.

#### *Recommendations for Future Research*

Further research on occupational therapy student intercultural development is warranted. While our study contributed to the body of knowledge on this topic, we are not able to attribute the gains in IAPCC-SV scores to participation in the international experience. Further research should compare student intercultural development in both domestic and international experiences. Additional information could be garnered by collecting qualitative data on postimmersion activities that may have contributed to students' further intercultural competence development. The impact of language proficiency on cultural competence development should also be explored.

#### **Conclusion**

The health care field continues to explore effective means of interacting with clients from

diverse backgrounds, requiring a strong level of cultural competency. In occupational therapy specifically, the client-centered focus requires the therapist to understand the impact of the client's cultural background on health and well-being. A service-learning program in Guatemala through our university's occupational therapy department has created an opportunity for occupational therapy students to develop their cultural competency to prepare for culturally responsive caring as future practitioners. The participants in this study all demonstrated an increase in cultural competency because of the immersion experience. This foundation of cultural competence prepares them for future practice in our ever-changing diverse health care environments.

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