The Effect of Allied Health International Internships on Subsequent Internships

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Minimal research exists investigating the effect short-term international allied health internships have on subsequent higher-level internships. In occupational therapy, these internships are called fieldwork. Researchers completed a retrospective data analysis of the Level II Fieldwork evaluation scores of 274 occupational therapy students attending a Master of Science program. Final Level II Fieldwork performance evaluation scores were compared between one group of 212 students who completed a domestic Level I Fieldwork and 62 students who completed a faculty-led international Level I Fieldwork. An independent t-test comparing all areas of Level II Fieldwork performance revealed that students who attended an international Level I experience scored statistically higher in the Fieldwork II evaluation sections of basic tenets and intervention skills on their second Level II Fieldwork. The corresponding p-value for the basic tenets section was 0.020. Similarly, the average score for intervention skills was significantly higher in the international cohort with a p-value of 0.012. Results show statistical significance in two of the seven evaluation sections for students who completed a faculty-led international Level I Fieldwork supporting the active learning pedagogy that was applied during Level I Fieldwork. Findings provide evidence to support the hypothesis that international fieldwork experiences have a positive effect on student outcomes. Study results can be considered across professional disciplines.

Faculty members at higher education institutions continually seek innovative pedagogical approaches to prepare students to be successful professionals. Allied health profession programs in the United States are no different. Due to the hands-on nature of allied health careers, infusing innovation and creativity into the experiential portions of the curriculum is almost essential (Hall, 2011; Myers et al., 2019). Determining which learning experiences are most valuable to future student performance is important.

Occupational Therapy (OT) is an allied healthcare profession that values the use of hands-on learning experiences. Academic OT programs consist of didactic and experiential curricular elements. The experiential components, also known as internships in other professions, are called fieldwork. Students complete two different levels of fieldwork: a short-term Level I and a more in-depth Level II. Often, students participate in more than one Level I experience, and it is assumed that these early experiences help prepare students for future in-depth Level II experiences (Nielsen et al., 2020).

Students enrolled in OT programs in the United States usually complete these Level I Fieldwork experiences in domestic sites in the United States. But at some universities, students can attend an international Level I Fieldwork experience. Faculty-led international Level I Fieldwork experiences have recently gained popularity. While there is much literature indicating these types of international trips improve students’ future cultural competency and personal attributes (Amerson, 2012; Haro et al., 2014; Humbert et al., 2012; Mu et al., 2010; Salls et al., 2019; Sim & Mackenzie, 2016; Simonelis et al., 2011), it is not known whether faculty-led international experiences better prepare students for future success in subsequent experiences when compared to domestic experiences. In this retrospective study, we present significant differences in the performance on Level II evaluations between students who participated in an OT international Level I experience and those who remained domestic.

Literature Review

OT Education

OT professionals help people across the lifespan participate in things they want and need to do through the therapeutic use of everyday activities (O’Brien, 2018). OT professionals refer to these everyday activities as occupations (American Occupational Therapy Association [AOTA], n.d) and believe that “engagement and participation in occupations are essential to one’s identity and well-being” (O’Brien, 2018, p. 26). In the United States, students can attend a university program to become either an Occupational Therapy Assistant or an Occupational Therapist. Occupational Therapy Assistant programs are typically 2–4-year programs where students earn either an associate degree or a bachelor’s degree. Occupational Therapist programs are typically 5–7-year programs where students earn either a master’s degree or a doctoral degree. All programs must be accredited by the Accreditation Council for Occupational Therapy Education (ACOTE). To be accredited, programs must demonstrate compliance with standards pertaining to administrative, didactic, and hands-on content (ACOTE, n.d.). How programs structure their fieldwork, or hands-on internship experiences, is at the discretion of each OT program.

At the private university where this study was conducted, the OT curriculum is designed so that Level I Fieldwork opportunities are embedded into main
intervention courses. This model was chosen because the OT program has active engagement as part of its teaching and learning philosophy. For example, while students are learning didactically how to best serve a pediatric client in their intervention courses, they are also participating in a pediatric hands-on Level I Fieldwork experience in the same semester to solidify their learning. All students are assigned a mentor while on Fieldwork I. In Occupational Therapy, these mentors are called fieldwork educators. Sometimes fieldwork educators are occupational therapists, and sometimes they are other professionals such as nurses, teachers, and social workers (AOTA, 2021). At this university, these Level I Fieldwork opportunities can also be completed with OT faculty in international settings. Students can opt to attend an international trip or stay in the United States for a domestic fieldwork experience.

**International Level I Fieldwork**

At the university where this study was conducted, students have had the option to attend a faculty-led international Level I Fieldwork experience since 2013. Faculty have carefully crafted these experiences to ensure students are gaining opportunities that will help them in their future academic and professional endeavors. One benefit of an international experience is that faculty can accompany the students and assume the role of fieldwork educator (Interis et al., 2018; Yuksel & Nascimento, 2018). Faculty can add reflective elements to the activities to maximize student learning that is aligned with the didactic curriculum. Additionally, international Level I experiences usually allow more hands-on evaluation and treatment from the students. The international experiences follow an active learning pedagogy, allowing the students to take more of an engaging role in the experience while the fieldwork educators act more as facilitators. Due to stricter healthcare requirements and therapist expectations in the United States (Grenier, 2015), students on domestic Level I Fieldwork experiences do not always get to participate in the entire OT process, just the aspects the fieldwork educator and facility will allow, such as observation only. This may make it difficult for active learning to occur. Because sometimes the domestic fieldwork students do not have an OT as their fieldwork educator, they are not able to participate in active learning. See Figure 1 for a visual depiction of the differences between international and domestic Level I Fieldwork experiences.

Numerous studies indicate the effectiveness of international Level I Fieldwork trips in cultivating personal skills and qualities such as confidence, creativity, cultural sensitivity, independence, problem solving, and thinking on your feet (Haro et al., 2014). A study by Sim and Mackenzie (2016) indicated students who participated in international fieldwork trips experienced long lasting benefits related to personal qualities after graduation, such as self-confidence and self-management. Many studies provide evidence that these trips help build cultural competency that can impact students’ future practice (Humbert et al., 2012; Martinez-Mier, et al., 2011; Mu et al., 2010; Salls et al., 2019). While current studies focus mostly on personal qualities, no studies were found linking international experiences directly to students’ skill-related performance on future higher-level experiences.

**Figure 1**

*Domestic vs International Fieldwork Comparison*

<table>
<thead>
<tr>
<th>Domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 FWE: 1 Student</td>
<td>2 FWEs: 8-12 students</td>
</tr>
<tr>
<td>Site specific Licensed professional</td>
<td>Faculty led</td>
</tr>
<tr>
<td>Traditionally observational with some reflection</td>
<td>Active learning with reflection</td>
</tr>
<tr>
<td>Frequent supervision by FWE</td>
<td>Increased student independence in OT process</td>
</tr>
<tr>
<td>Limited student to student interaction</td>
<td>Peers in groups with student collaboration</td>
</tr>
</tbody>
</table>
Level II Fieldwork

OT students complete two 12-week Level II Fieldwork experiences. These experiences are completed in OT settings under the supervision of registered occupational therapists. Students are assessed halfway through these experiences and at the end. Faculty at the OT program where this study was completed use a formal evaluation tool, recommended by the AOTA (2002), called the Fieldwork Performance Evaluation (FWPE) for the Occupational Therapy Student. This tool assesses the student in 42 areas that are categorized into seven sections. The FWPE measures a student’s competence for entry-level practice (AOTA, 2012). Students must earn a passing score of at least 122 points. Students must pass both Level I Experiences to move on to the Level II Experiences to then be eligible to sit for their national board certification exam and apply for state licensure. Therefore, it is important that OT academic programs determine the most effective ways to prepare students for success during these experiences. Since Level I Fieldwork is a precursor to Level II Fieldwork, it would be advantageous to determine if students participating in the carefully crafted international experiences are any more or less successful on their Level II placements.

Question

Does international Level I Fieldwork affect performance on Level II Fieldwork, when compared to domestic Level I Fieldwork? The researchers hypothesized that students who attend international faculty-led Level I Fieldwork trips would score higher on the Level II FWPE in the areas of communication and professional behaviors. Faculty leading the international Fieldwork I trips intentionally design the experience to allow the students more independence throughout the placement, which could lead to enhanced development specifically in these two areas.

Methodology

The data collected in this secondary data analysis came from 274 students’ final scores on their first and second Level II AOTA FWPEs (see Figure 2). These students met inclusion criteria as they were enrolled at the university the study was conducted at, graduated between 2013 and 2019, and had complete Level II FWPE records for both Level II experiences. Of the 274 students, 212 of them participated in a domestic Level I Fieldwork experience within the United States. The other 62 traveled internationally to either Ecuador or

Figure 2

Study Participants

Assessed for complete records
(n = 288)

Excluded (n = 14)

Students who participated in Level I domestic fieldwork within the United States (n = 212)

Students who participated in Level I international fieldwork outside the United States (n = 62)
India to complete their Level I Fieldwork. Exclusion criteria included any students who had incomplete fieldwork evaluation data. There were 14 students excluded from the study and 274 who met the inclusion criteria. Most subjects were Caucasian females pursuing their Master of Science in occupational therapy.

**Procedures**

Internal Review Board approval was received on November 13, 2019. Data collection was completed by two researchers starting November 2019 and ending February 2020. Student fieldwork folders were collected by the researchers, and Level II FWPE forms were photocopied and deidentified with coding. All deidentification was completed by the researchers. An excel spreadsheet was created and a third party individual logged de-identified data including domestic versus international Level I Fieldwork participation, student graduation year and FWPE scores for both Level II experiences.

**Instruments**

The AOTA FWPE has 42 questions that measure a student’s performance in seven sections. The measurements are made on a 4-point scale where 1 is “unsatisfactory,” 2 is “needs improvement,” 3 is “meets standards,” and 4 is “exceeds standards.” The seven sections are shown in Table 1.

The average scores for both the domestic cohort as well as the international cohort were calculated for each of these seven sections on both the first and second Level II Fieldwork rotation FWPEs. Cumulative averages for both rotations were also calculated. Statistically significant differences were found using a two-sample independent t-test with level of significance $\alpha = 0.05$. Since both the domestic and the international samples were large enough, an independent t-test was appropriate to examine differences in the population means.

**Results**

The first Level II Fieldwork and second Level II Fieldwork descriptive statistics for all seven FWPE sections for both the domestic and the international cohorts can be found in Table 2. Here the sample mean ($M$), the sample standard deviation ($SD$), and the number of responses ($n$) are listed for each category. Notice that the values for $n$ depend on how many of the 42 questions pertain to the specific FWPE section. For example, section 1, fundamentals of practice, is measured using three questions. Since there are $n = 212$ students in the domestic cohort each answering three questions, the total number of responses is $n = 212 \times 3 = 636$. However, since there are $n = 62$ students in the international cohort, the number of responses for section 1 is $n = 62 \times 3 = 186$.

The first Level II Fieldwork experience FWPE averages for each of the seven evaluation sections can be found in Chart 1. Hypothesis tests show that none of the differences between the domestic cohort and the international cohort are significant for this first Level II Fieldwork experience.

The second Level II experience FWPE averages for each of the seven evaluation sections can be found in Chart 2. Hypothesis tests show that there are two significant differences between the domestic cohort and the international cohort. The first is in section 2, basic tenets of occupational therapy, and the second is in section 4, intervention. In both cases, the international cohort had an average score higher than that of the domestic.

An independent t-test shows that the average score for section 2, basic tenets of occupational therapy, is significantly higher in the international cohort than in the domestic cohort. The corresponding $p$-value is 0.020. Similarly, the average score for section 4, intervention, is significantly higher in the international cohort with a $p$-value of 0.012.

**Table 1**

*Content of AOTA FWPE*

<table>
<thead>
<tr>
<th>FWPE Section</th>
<th>Number of Questions</th>
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<tbody>
<tr>
<td>Fundamental of Practice (1)</td>
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<tr>
<td>Basic Tenets of Occupational Therapy (2)</td>
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<tr>
<td>Evaluation and Screening (3)</td>
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<td>Intervention (4)</td>
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<td>Management of OT Services (5)</td>
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<td>Communication (6)</td>
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Table 2
Descriptive Statistics

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<tr>
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<td>2120</td>
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<td>1057</td>
<td>848</td>
<td>1484</td>
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<table>
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<tr>
<th>First Level II Rotation- International Level I (n=62) FWPE Section</th>
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<tr>
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<td>620</td>
<td>558</td>
<td>310</td>
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</table>

**Discussion**

We were trying to determine if international Level I experiences have any effect on students’ Level II Fieldwork performance when compared to domestic Level I experiences. The researchers thought that international Level I experiences may show increased scores on Level II fieldwork performance in the sections of communication and professional behaviors due to the known increased independence the faculty fieldwork educators provide students during international fieldwork experiences. Our broad hypothesis that international fieldwork would have a positive impact on Level II outcomes was correct, but we were incorrect in what specific FWPE sections they would score higher in. Statistical significance was shown in the sections of the basic tenets of occupational therapy and intervention skills for students on their second Level II Fieldwork experience.

**Basic Tenets**

Results indicate students who participated in an international Level I Fieldwork rotation scored higher on their second Level II Fieldwork evaluation in skills related to the basic tenets of occupational therapy. These basic tenets include articulating the values and beliefs of the profession and the value of occupation. All students in the study practiced articulating the profession’s value early on in didactic work but had to actively explain to clients what OT is as part of their Level I and Level II Fieldwork rotations. Students who traveled internationally for their Level I rotation might have scored higher in this basic tenet skill because they were provided more opportunities to do so in comparison to their domestic counterparts.

For example, students on international fieldwork were most likely required to reflect on the basic tenets of OT more frequently than their domestic counterparts. Due to the increased independence the international students were afforded by the faculty fieldwork educators, students on international fieldwork had to communicate daily to their clients as to who they were and why they were visiting a foreign country. This challenged the students to better understand the basic tenets of OT to be successful in these interactions. Additionally, the international Level I students had many opportunities to communicate the role of the occupational therapist to clients during rotations in India and Ecuador. As they completed interviews and evaluations, students were required to explain to their clients the purpose of OT and the student’s role in the OT process. Because of the observational nature of domestic Fieldwork I experiences, it is questionable if these type of interactions were allowed during the domestic experiences.

The international Level I students also collaborated with clients abroad extensively due to the mission and supervisory nature of the faculty fieldwork educators who support “teaching complex thinking” as one of the five pedagogical approaches involving challenging activities (Learning for Justice, 2020).
**Chart 1**  
*First Level II FWPE Averages for Each of the 7 Sections*

**Chart 2**  
*Second Level II FWPE Averages for Each of the 7 Sections*
Researchers postulate that domestic Level I sites may not have required students to articulate the value of the profession as frequently because clients may have been more familiar with the profession in the United States. Several students who were at domestic placements worked in hospitals where the focus of treatment can shift towards strength and endurance as a therapy goal. The international Level I students were immersed in the core of the OT profession which includes practicing occupation and client-centeredness.

**Intervention Skills**

Client-centeredness is the nucleus of treatment in occupational therapy. The occupational therapist and client choose activities that address the client’s problems during intervention to meet goals so the client can progress in treatment or intervention. According to the AOTA (2014), “The intervention process consists of the skilled services provided by occupational therapy practitioners in collaboration with clients to facilitate engagement in occupation related to health, well-being, and participation” (p. S 14). The intervention piece of the AOTA evaluation form consists of the second largest part of the student assessment. The average intervention skill scores of the international Level I students were statistically higher in this area on their second Level II Fieldwork. Components of this performance item include clear rationale for intervention, choose occupations that motivate and challenge, select relevant occupations, and implement client-centered and occupation-based interventions.

International fieldwork students may have scored higher in these areas because faculty fieldwork educators required students to independently plan and execute treatment both individually and in small groups with the clients. In India and Ecuador, the students had to use complex thinking as they practiced the intervention process hands on with real clients. These students had to analyze meaningful occupations relevant to the culture of the clients each day while on international fieldwork. Students on domestic Fieldwork I experiences may not have had the opportunity to participate so deeply in the intervention process.

Additionally, expectations on the international fieldwork experience were such that students were encouraged to value each client’s meaningful occupations, which is a basic tenet of the profession, while planning and executing interventions with freedom under the required supervisory process. The freedom the faculty fieldwork educators provided the international fieldwork students helped to foster the program’s hands-on occupation-based learning pedagogy so that the application of the didactic portion could truly be implemented during the hands-on intervention opportunities abroad with clients. Students on domestic Fieldwork I placements may not have had the freedom to experience this hands-on occupation-based practice as much as their international counterparts.

**Impact on Curriculum and Students**

Both international and domestic Level I Fieldwork experiences prepare OT students for their more intensive Level II Fieldwork opportunities. Our study results reveal that students who completed an international Fieldwork I scored higher in the basic tenets and intervention skill sections on their second Level II placement. This finding supports exposure to Level I international fieldwork opportunities. International fieldwork helped to expand the experiential learning focus of the program’s curriculum. The environment of the international fieldwork experience is one that allows the OT process to flourish as students investigate meaningful activity or occupation in a country other than their own and evaluate what is valuable to support client-centered intervention. Providing an international Level I Fieldwork experience in the OT curriculum is valuable if the curriculum can support experiential learning for the students.

Our study results indicate students may invest time and money into international travel as part of the fieldwork experience knowing that historically this group has performed significantly better on some areas of their Level II Fieldwork evaluations. Furthermore, these results could be used by faculty when requesting funding for international fieldwork trips to increase opportunities for students needing financial support for international travel. The rich cultural experience of a Level I international fieldwork may become more popular if students become aware of the possibility for enhanced clinical performance. OT as a profession, along with other professions, can become more globally connected as students travel to support individuals and populations in need due to the positive impact of an international fieldwork experience. These encouraging results can also be considered by other healthcare professionals as they plan and advocate for international internship opportunities for their students within their pedagogical frameworks.

**Limitations**

As is often the case in statistical studies, a main limitation is sample size. A larger sample size may have yielded additional results. Chart 2, for example, shows that the average Level II scores for students who participated in the Level I international experience were higher in 6 out of the 7 FWPE sections. However, in only two of these sections were the differences statistically significant. If similar data were found with a larger
Further studies could delve deeper into the impact understanding of the profession and intervention skills. Experiences outperformed others in the areas of the basic experiences in relation to Level II Fieldwork. Researchers could analyze qualitative data related to exposure to week-long international fieldwork evaluation outcomes. This study showed how students' experiences have on students' future fieldwork knowledge regarding the impact international fieldwork.

Future Research

Continued research is recommended to broaden knowledge regarding the impact international fieldwork experiences have on students' future fieldwork evaluation outcomes. This study showed how students exposed to week-long international fieldwork experiences outperformed others in the areas of the basic understanding of the profession and intervention skills. Further studies could delve deeper into the impact faculty have during a faculty-led international fieldwork trip. Researchers could analyze qualitative data related to international or domestic Level I Fieldwork student experiences in relation to Level II Fieldwork performance and could focus on comparing data from multiple academic institutions. Studies could look at the differences between gender and other demographic comparisons. Further analysis could be done with larger sample sizes where students experience international fieldwork in other countries besides Ecuador and India. Continued research could also look at the benefits of a more hands-on experience during fieldwork in domestic settings. Training OT fieldwork educators at domestic sites to teach complex thinking and have conversations that support the value of OT to best serve the students and the clients could also be researched.

Conclusion

This study's subjects were exposed to active engagement throughout the OT program's curriculum. The program's pedagogy was conducive to student learning in international settings, while hands-on engagement with clients in the support of occupation was valued by the faculty fieldwork educators. Perhaps the consistent thread of student active engagement that included international fieldwork helped to increase Level II outcome scores in the basic tenets and intervention skills portions of the second Level II FWPE. It is possible that the students who attended an international Level I Fieldwork were able to better maintain their intervention skills and their understanding of the basic tenets consistently through to the end of their second Level II Fieldwork. Overall, further study will be important to understand the impact international fieldwork has on student learning and to support student growth and understanding of occupation on a global scale.

References

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