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Abstract

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Keywords

Experiential learning education, occupational therapy, student, standardized patient, simulation

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Effectiveness of Instructor-Led Discussion versus Simulation to Prepare Students for Fieldwork

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ABSTRACT

Occupational therapy students do not always feel prepared to start fieldwork. The study purposes were to 1) measure the effectiveness of refresher sessions on students' perceived self-efficacy, knowledge, and skills related to fieldwork preparedness and 2) determine whether using simulation with standardized patients (SPs) was more effective than a discussion-based format. The participants (N=34) were entry-level occupational therapy doctoral (OTD) students. Four students acted as a control group while the remaining 30 students were randomly assigned to experimental groups (discussion or simulation). Outcome measures included a readiness for fieldwork survey (quantitative self-reported ratings and qualitative questions), a knowledge-based exam, and a competency evaluation. The experimental groups' total mean differences were greater than the control group, although these were not statistically significant ($p = .551$). However, there were statistically significant differences between the groups for two survey items ($p = .010$; $p = .045$). There were also statistically significant differences for within-group measures for each experimental group related to self-efficacy (simulation group, $p = .006$; discussion group, $p = .001$), but not for the control group. This suggests that both discussion and simulation were effective in increasing student fieldwork readiness. The qualitative data provided additional insight into student perceptions about fieldwork, patient interactions, and level of confidence. Study findings supported the implementation of refresher sessions and demonstrated that using either discussion or simulation were effective options. Further research examining specific strategies for both interventions and combining the two for optimal student preparation would be beneficial.

Introduction

Fieldwork is an integral part of occupational therapy (OT) education. Occupational therapy students, however, do not always feel prepared to start their fieldwork experiences despite having opportunities for practice throughout the didactic portion of their education (Goldbach & Stella, 2017; Knecht-Sabres et al., 2013). The purpose of this study was to measure the effectiveness of refresher sessions on students' perceived self-efficacy related to Level II fieldwork preparedness, knowledge, and skills. The researchers also hoped to determine if a simulation format using standardized patients (SPs) compared to a discussion format was more effective in preparing students for fieldwork.

Background

According to the 2018 Accreditation Council for Occupational Therapy Education (ACOTE) standards, the purpose of fieldwork is, in part, to enable students to develop professionalism and to become more competent in their career responsibilities (ACOTE, 2018). When students participate in fieldwork experiences, they develop both clinical and professional skills including effective communication, problem-solving and clinical reasoning, interdisciplinary teamwork, professional interactions, and physical tasks specific to the job. This can help them make the transition from students into professionals who can navigate the everchanging healthcare environment (American Occupational Therapy Association [AOTA], 2016; Rodger et al., 2007; Williams et al., 2010). Therefore, preparation for Level II fieldwork is an important part of OT programs' curricula and is crucial in the education of future OTs. Faculty can prepare students for fieldwork throughout their educational experience by giving them both a working knowledge of OT as well as providing opportunities to practice both clinical skills and professional behaviors in a variety of ways (e.g. didactic education, problem-based learning, laboratory experiences, case studies, experiential learning; Goldbach & Stella, 2017).

Theoretical Perspectives

An active engagement in learning facilitates "learning through doing" (Schaber, 2014, p. S43) and is a signature pedagogy of OT education. This pedagogy is often termed experiential learning as real-life experiences are played out in simulations or cases (Yardley et al., 2012). Experiential learning enhances understanding of course material and improves personal and professional skills (Knecht-Sabres, 2013). This learning can occur by either working through problems during faculty led discussion, or it can occur with simulations. Vygotsky (1978) discussed learning by doing, initially with the teacher in close proximity to the student, then slowly backing away, thus decreasing the zone of proximity. This scaffolding approach is used often in health care education, especially when moving from didactic education to actual hands-on clinical experience. A refresher session consisting of either an instructor-led discussion or patient simulation could provide an additional step to bridge the gap between classroom and clinic, possibly improving student self-efficacy during fieldwork. The following research was conducted to test this postulation.

Discussion-Based Teaching Methods

Discussion-based teaching methods are a well-established, effective pedagogy for promoting active learning. Students are challenged in their higher-order thinking as discussion requires analysis, synthesis, and evaluation (Alspach, 1995; Bonwell & Eison, 1991; Johnson & Migheten, 2005; Kemp et al., 1994). Deep learning can be achieved when students come together as a group to discuss their understanding, opinions, and views on a subject (Meshram et al., 2015). Specifically, discussions where peers are encouraged to pose questions, without clear, straightforward, or correct answers have been well-received by participants. This is due to the higher-order thinking required, which enables the student to actively think through a scenario (Syed et al., 2017).

Simulation Education

Simulation education can also be considered experiential learning as it aims to provide a clinical context in which students can practice skills without risk to actual clients; thus, bridging the gap between the classroom and clinical practice (Shoemaker et al., 2009). Approximately 71% of OT programs use simulations, most often utilizing SPs and video case studies (Betha et al., 2014). Simulation using SPs have yielded positive outcomes in clinical reasoning, problem solving, proficiency in evaluation and intervention planning, cultural competence, appreciation of other healthcare practitioners, and increasing student confidence (Cahill, 2015; Cheng et al., 2015; Cook et al., 2013). Debriefing, which is part of the simulation process, benefits student learning by allowing students to reflect on how their experience affects future practice. This can help increase self-awareness and self-efficacy (International Nursing Association for Clinical Simulation and Learning [INACSL] Standards Committee, 2016a; Mariani et al., 2014). Simulation education is also associated with higher rankings of student perceived knowledge and self-efficacy (Gibbs et al., 2017). Giles et al. (2014) suggested that the use of SPs and reflective analysis may allow students a way to organize and identify strengths as well as areas of improvement prior to beginning Level II fieldwork. These findings support the effectiveness of simulation and suggest the use of simulation with SPs as an appropriate teaching intervention for OT education. In fact, the 2018 ACOTE standards have included the use of simulation and SPs as acceptable forms of Level I fieldwork (ACOTE, 2018).

Fieldwork Preparation

Despite there being a variety of effective teaching pedagogies and opportunities to gain knowledge and practice skills, OT students do not always feel confident to start their fieldwork rotations (Goldbach & Stella, 2017; Knecht-Sabres et al., 2013). According to Goldbach and Stella (2017), there are five skill sets that students sometimes lack when preparing for fieldwork: fieldwork readiness (hands-on practice), communication, documentation, confidence, and clinical reasoning. A national survey of fieldwork educators also acknowledged that supervising students was challenging due to limited student capabilities (Evenson et al., 2015).

While there is a lack of evidence specifically available on the effectiveness of review sessions to improve readiness for fieldwork, evidence suggests that a review or study session offered prior to an exam can help student performance (Aamodt, 1982; Poole & Moore, 2016). Therefore, providing students with a refresher session before beginning their fieldwork may help students feel more prepared and improve their performance. This research seeks to establish whether this is true and to determine which review format is more effective: discussion or simulation.

Methodology

This multi-group mixed methods research study compared the differences in student self-perceptions of preparedness, knowledge, and skills in preparation for a Level II fieldwork in an adult physical disabilities setting after participating in a refresher session. Approval was granted from Belmont University's Institutional Review Board, and informed consent was received from each participant prior to participation.

Recruitment

A convenience sample was used to recruit participants from a second-year entry-level occupational therapy doctorate (OTD) cohort of students at Belmont University's School of Occupational Therapy. Participants were invited during the students' fieldwork seminar course and a follow-up email was sent. Those who were willing to participate in the study, but could not attend the refresher sessions, were invited to be part of the control group. A total of 34 students (N=34) volunteered for the study, with four of them consisting of the control group. The remaining 30 students were randomly assigned to either the discussion group or the simulation group. Four students were excluded from the study as they ultimately were unable to attend the intervention. These participants were all from the simulation group, leaving 15 in the discussion group and 11 in the simulation group.

Instrumentation

Three outcome measures were used to assess the effectiveness of the refresher sessions:

1. A survey which included both 13 quantitative self-efficacy of fieldwork preparedness ratings and four qualitative questions related to perceptions about beginning fieldwork, patient interactions, and knowledge confidence. This same survey was given both pre and post intervention.
2. A knowledge-based exam. Exams of similar format but different questions were given both pre and post intervention.
3. A transfer skill competency. This competency was given only post intervention.

The intervention participants completed all three measures while the control group participants completed only the first two measures and did not complete the transfer skill competency.

The Survey

A survey method was chosen to collect both quantitative and qualitative data about the students' perceived preparedness for fieldwork. The survey consisted of two parts. Students were asked to rate their perceived ability on a 13-item scale from 0-100 (with 100 indicating a high certainty of ability and 0 indicating lack of ability) to perform specific tasks related to fieldwork in the areas of safety, collaboration, evaluation and screening, intervention, communication, and professional behaviors. The selected tasks and wording of the items was based on the AOTA Fieldwork Performance Evaluation for the Occupational Therapy Student (AOTA, 2002). The survey also consisted of four qualitative questions to help further explain the students' self-efficacy ratings. These questions asked students to describe their perceptions about beginning their fieldwork, about interacting with and treating patients, and about knowledge that they felt most confident and least confident. Refer to Appendix A for the survey.

The Knowledge-Based Exam

The students also answered a total of 20 knowledge-based exam questions, ten before the refresher session and ten after, to assess knowledge and clinical reasoning skills. The questions were written by an associate investigator in a similar format and style to the national certification exam and were reviewed by a faculty member and a practicing clinician for both accuracy and clarity.

The Transfer Skill Competency

Intervention students were asked to complete simulated bed mobility and a bed-to-wheelchair transfer with a SP following the refresher sessions. Occupational therapy practitioners who served as Level II adult physical disabilities fieldwork educators evaluated the students' performance related to both clinical and communication skills. The practitioners used a checklist to assess each student's performance. To ensure consistency between evaluators, an associate investigator provided the evaluators with a brief training prior to the competency.

Refresher Session Descriptions

The Discussion Session

The instructor-led discussion group was held in a two-hour session with a faculty member using a question and answer format. During the refresher session, students were posed questions regarding skills associated with OT intervention in the adult physical disabilities setting. They also asked multiple questions about professional behaviors, work culture, and expectations of fieldwork students.

The Simulation Session

The simulation session was also two hours in duration with one hour for scenarios with SPs and one hour for debriefing. In small groups, students rotated between four different scenarios in 15-minute increments. The simulation cases, which followed the INACSL standards for simulation, were developed by an associate investigator and reviewed by the primary investigator and the College's Director of Simulation (INACSL Standards Committee, 2016b; INACSL Standards Committee, 2016c). Each case had

specific objectives and efforts were made to ensure the cases were realistic to an adult physical disabilities' context. The SPs used in the scenarios were from the College's established pool of trained actors who received previous training and regularly participated as SPs across the healthcare programs. For this study, the SPs were provided with comprehensive narratives describing their patient roles and expected responses when interacting with the students. The actors were also given links to videos that demonstrated deficits commonly seen in the specific diagnoses. Prior to the simulations, an associate investigator met with the SPs to review the simulation objectives and scenario details and to answer any questions. The debriefing session, which included both the students and SPs, provided students with feedback and an opportunity to reflect on their experience and future practice. The two associate investigators who led the pre-briefing and debriefing sessions received training prior to serving in their facilitator roles. Refer to Table 1 for a description of the simulation scenarios and student objectives.

Table 1

Description of Simulation Scenarios and Student Objectives

| | Case 1 | Case 2 | Case 3 | Case 4 |
|-----------------------------|---|--|---|---|
| Setting | Acute Care | Inpatient Rehab | Acute Care | Outpatient |
| Patient Demographics | 47 year old female status post T8-L1 spinal fusion | 62 year old male status post Coronary Artery Bypass Graph x2 | 55 year old female status post traumatic brain injury | 76 year old female status post right cerebral vascular accident |
| Student Objectives | Practice bed mobility Determine d/c recommendations Provide patient education on spinal precautions | Develop treatment plan Conduct treatment session Write patient progress note | Conduct initial evaluation Establish goals and document plan of care | Perform a chart review Develop treatment plan Conduct treatment session |

Data Analysis**Quantitative Analysis**

All quantitative data was analyzed through SPSS Statistics software, Version 25 (IBM, 2017). A one-way ANOVA was used to compare the difference in means of the Likert scale self-efficacy ratings of preparedness for fieldwork and the difference between scores on the knowledge-based exams between the three groups. A follow-up Tukey post-hoc test was used to determine where the significance lie between the three

groups for the statistically significant items. Because the group sample sizes were not equal, a Bonferroni correction was also completed. An independent t-test was used to compare the transfer skills competency scores between the discussion and simulation groups. A Wilcoxon Signed Ranks Test was used to determine the difference in pre-post testing of the total self-efficacy scores for both the discussion group and the simulation group.

Qualitative Analysis

The qualitative data was analyzed line by line and open coded (Corbin & Strauss, 2015). Then reoccurring and similar open codes were grouped together into focused codes (Charmaz, 2014). Finally, focused codes were grouped together into developed themes. When student responses exceptionally described a thought, idea, or feeling, those phrases were labeled as in vivo codes and were transcribed exactly into the manuscript (Corbin & Strauss, 2015). A thorough audit trail including all codes and memos regarding decisions made throughout the data analysis process were maintained.

Results

Quantitative Results

Between the Three Groups

A one-way ANOVA was used to compare the difference in means of the Likert scale self-efficacy ratings of preparedness for fieldwork and the difference between scores on the knowledge-based exams between the three groups.

For all 13 self-efficacy ratings, all groups demonstrated positive gains between the pre and post test score mean differences, with the exception of one statement for the control group (*I can collaborate with client, family, and significant others throughout the occupational therapy process*). The refresher groups' total mean differences were noted to be much larger compared to the control group's mean differences (120.91 & 146.00 vs. 44.50); however, because of the different group sizes, this was not found to be statistically significant ($p = .551$). There was also no significant difference in scores on the knowledge-based exams ($p = .453$) between the three groups.

Of the 13 self-efficacy ratings, there was a statistically significant difference between the three groups for two statements (*I can collaborate with client, family, and significant others throughout the occupational therapy process*, $F(2, 27) = 5.555$, $p = .010$, $\omega = .483$; *I can produce clear and accurate documentation according to site requirements*, $F(2, 26) = 3.501$, $p = .045$, $\omega = .383$). Refer to Table 2 for a comparison of mean differences between pre and post testing by groups.

Table 2

Comparison of Mean Differences Between Pre and Post Testing by Group for Two Items

| <i>Criteria: Difference between Pre and Post Test Self-Efficacy Ratings</i> | <i>Control Group</i> | <i>Discussion Group</i> | <i>Simulation Group</i> | <i>ANOVA F Statistic</i> |
|--|--------------------------|-----------------------------|-----------------------------|--|
| <i>Basic Tenets I can collaborate with client, family, and significant others throughout the occupational therapy process.</i> | -7.75 | 6.13 | 8.55 | <i>F = 5.555 p = .010 ω = .483</i> |
| <i>Communication I can produce clear and accurate documentation according to site requirements.</i> | .25 | 17.53 | 18.00 | <i>F = 3.501 p = .045 ω = .383</i> |

Tukey post-hoc testing determined that for the collaboration and documentation ratings, there was a significant difference between the discussion group and the control group and between the simulation group and the control group for the above two criteria. For “*I can collaborate with client, family and significant others throughout the occupational therapy process,*” the discussion group compared to the control group was significant at the .01 level ($p = .007$); and for the simulation group compared to the control group, it was significant at the .005 level ($p = .003$). For “*I can produce clear and accurate documentation according to site requirements,*” the discussion group compared to the control group was significant at the .05 level ($p = .019$); and the simulation group compared to control group was also significant at the .05 level ($p = .022$). Refer to Figures 1 and 2 for a comparison of the two ratings between groups.

Figure 1

Comparison of Mean Differences between Groups for Collaboration Statement

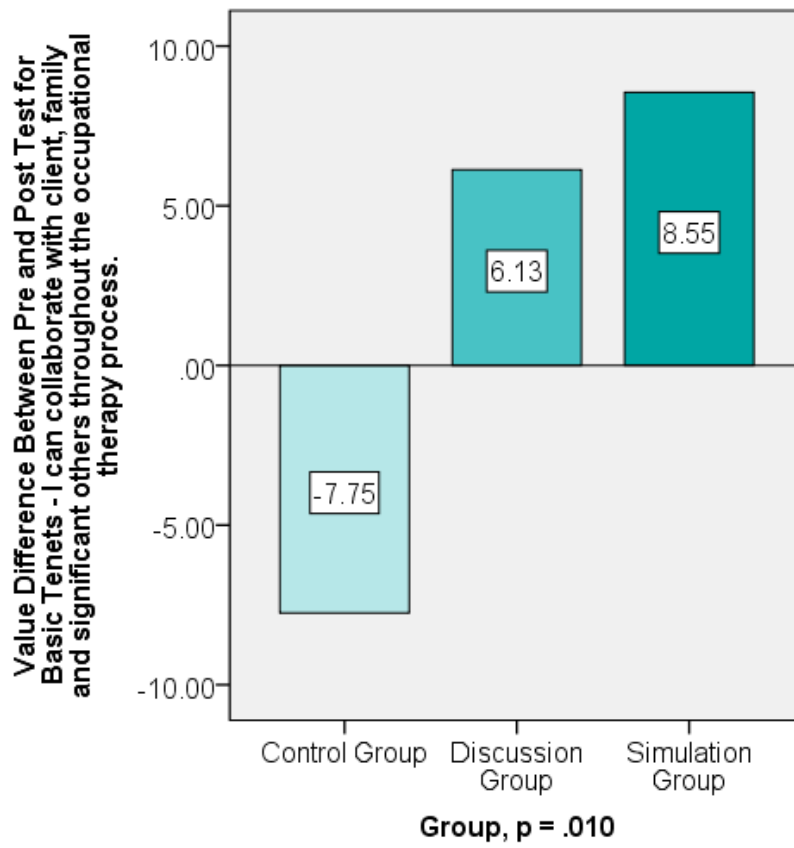
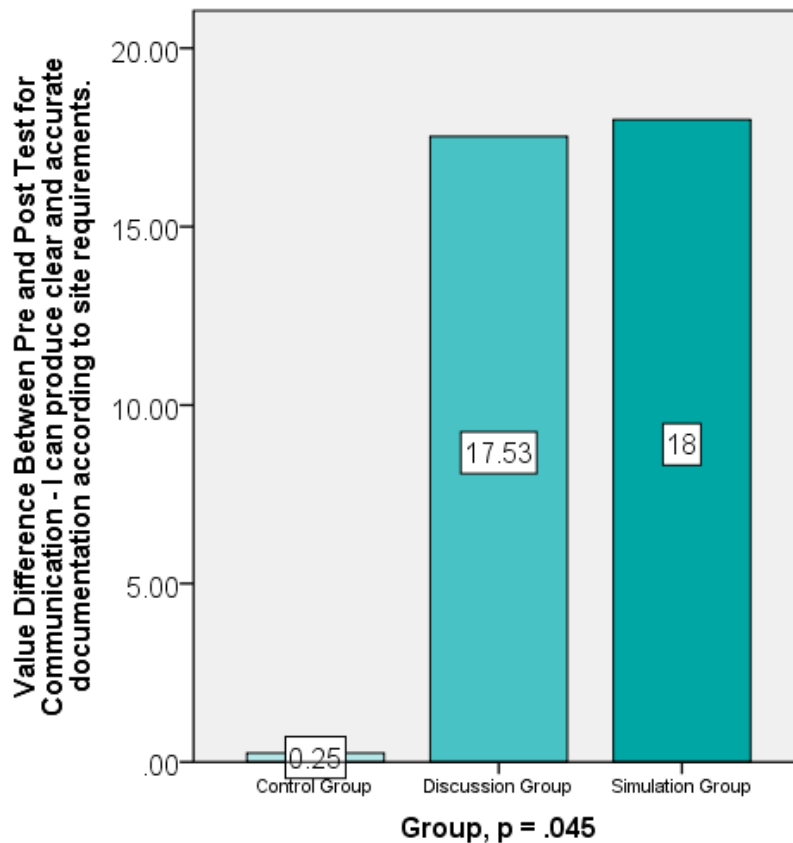


Figure 2

Comparison of Mean Differences between Groups for Documentation Statement



Between the Two Intervention Groups

The second research question focused on determining if one refresher course format was more effective than the other related to perceptions of preparedness for fieldwork, knowledge, and skills. Based on the one-way ANOVA post-hoc testing and an independent t-test, when comparing the discussion group to the simulation group, there were no statistically significant differences for any of the self-efficacy ratings, the knowledge-based exam scores ($p = .722$), or the transfer skills competency ($p = .572$).

Therefore, the data suggests that although both interventions were effective, neither the discussion group nor the simulation group was more effective than the other in the improvement of students' self-perceptions of preparedness for fieldwork, knowledge, or skills overall.

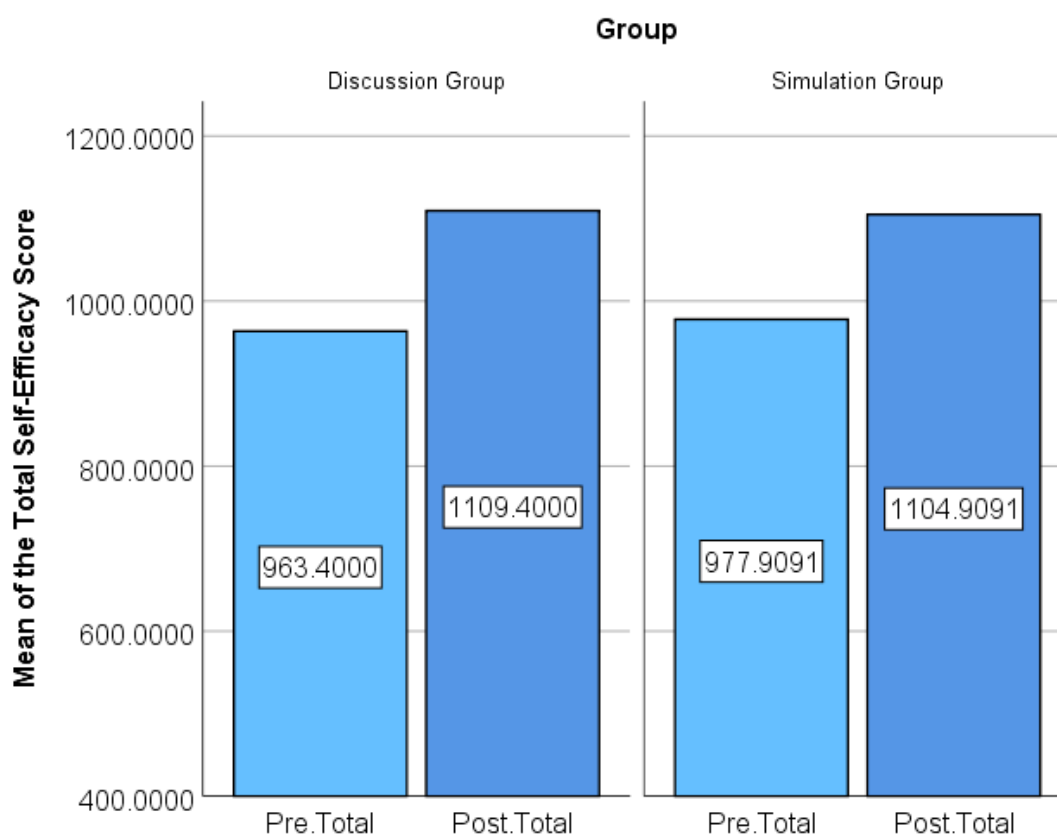
Within Groups Effects

A Wilcoxon Signed Ranks Test was used to determine the difference in pre-post testing of the total self-efficacy scores for both the discussion group and the simulation group.

There was a statistically significant increase in total scores for student perceived self-efficacy for both groups, with the simulation group showing a 127-point mean-increase ($p=.006$; $d = 1.623$) and the discussion group showing a 146-point mean-increase ($p = .001$; $d = 1.076$). Refer to Figure 3. There was not a statistically significant difference between the pre and post knowledge-based exam scores for both groups, discussion ($p = .128$) and simulation ($p = .114$) suggesting that the students did not improve their level of knowledge from participating in the refresher sessions, but they did improve their level of perceived self-efficacy.

Figure 3

Comparison of Mean differences between Pre-Post-Ratings for Total Self-efficacy



Qualitative Results

Qualitative data were also collected to further understand the quantitative results. The students who participated in the refresher sessions were asked the same four questions both before and after participation. The control group was asked the questions only once. For two of the questions, students were asked to describe their perceptions (e.g. thoughts, feelings, attitudes, viewpoints) related to beginning their fieldwork and patient interactions. Students were also asked to report what knowledge they felt most and least confident about regarding interactions with future patients.

Question #1: What are your perceptions about beginning your Level II Fieldwork in adult physical disabilities?

Students were asked about their perceptions in beginning their adult physical disabilities fieldwork. All groups of students expressed emotions of excitement to use their skills, emotions of nervousness and anxiety about interventions, and overall, felt unprepared. Those that participated in the instructor-led discussion were also concerned about disappointing themselves and their future fieldwork educators, but had a desire to work with adults, their preferred patient population. The simulation students reported feeling anxious, concerned, and unsure about interventions; however, they also reported stress about learning the workplace culture such as understanding team interactions and establishing a daily routine. Even though they felt "...pretty nervous about the beginning process and figuring everything out," the simulation students reported feeling confident in their capacity to learn and felt prepared based on foundational knowledge gained during the didactic portion of their academic program. One student stated, "I have confidence that I will 'figure it out once I am there' because that is what everyone says..." Control group students described similar feelings of fieldwork being initially difficult, but they felt confident in their skills and ability to succeed with their clinical instructor's support.

After participating in the refresher sessions, the students continued to have feelings of excitement and eagerness; however, both groups also reported feeling more confident than previous with decreased anxiety and nervousness. The students in the discussion group expressed feeling more prepared after the content review. One student felt "...surprised that diagnosis and interventions came back...fairly quickly." Following the simulation session, the students still reported emotions of nervousness and worry about interventions and knowing the patient context; however, their responses also suggested a growth mindset with increased awareness, willingness to learn, learning through mistakes, and not being afraid to fail. By participating in the simulations with the SPs, one student said, "Not performing today's activities perfectly was a good reminder for me that I learn best when I make mistakes; and then I won't make the same mistakes again!"

Question #2: What are your perceptions about interacting with and treating future patients?

Students were specifically asked both before and after participating in the refresher sessions about their thoughts, feelings, attitudes, and viewpoints about interacting and treating future patients. Like their perceptions about starting fieldwork, the students reported feeling excited, nervous, comfortable, and confident about patient interactions. They were excited to build rapport, provide treatment, and to be a clinician. These feelings were described by one student in the simulation group as “I feel like this is what I have been waiting for – entire time at school – forming relationships with clients and helping them reach their full potential.” For the instructor-led discussion group, the students were concerned about having all the necessary knowledge and skills to effectively communicate and provide interventions, especially with patients that were acutely ill. They used words like “nervous,” “worried,” “anxious,” “intimidated,” and “afraid” to describe their feelings, but they also recognized their internal expectations and that they were still learning. Some students felt that they possessed the ability to build rapport with patients by having knowledge, being empathetic, and being above average in their interactions. The control group students reported very similar perceptions.

After participating in the refresher sessions, the students reported having similar feelings about interacting with and treating patients. They were still excited to build rapport and felt comfortable and confident in being able to interact with patients. The discussion students were concerned about being able to make in the moment decisions; however, realized that they would gain experience over time. The simulation students expressed excitement about working with challenging patients while also being concerned and nervous about providing interventions and effectively communicating. After the simulation, the students recognized they have a supportive environment where it is safe to ask for help as they continue to learn.

Question #3: What knowledge are you most confident in applying when working with future patients?

The students were asked what knowledge they felt most confident about when working with patients. Overall, the refresher session groups had similar responses with students identifying building rapport, providing interventions, and being able to carry out the assessment process as areas where they felt confident in their knowledge. Before participating in the discussion session, a student commented “...after all the things we have practiced, I have developed the ability to make a person feel like I am listening and that I care.” A student from the simulation group said, “Maybe this refresher will help show me that I do actually feel confident, but I’ll need that reminder in order to actually feel confident.” While the groups provided similar answers when describing aspects of interventions, the discussion group was broader (e.g. client-centered, occupation-based, treatment planning) but the simulation students named specific interventions (e.g. transfers, activities of daily living, wheelchair, safety, precautions). Except for including documentation, the control group students offered common responses related to confidence in patient interactions and treatment planning.

There was little difference in the student responses after participating in the refresher sessions with the students reporting building rapport, intervention, and assessment as being the areas where they were feeling most confident.

Question #4: What knowledge are you least confident in applying when working with future patients?

Students were asked about what knowledge they felt least confident about when working with patients. Providing interventions was a key area that students were least confident in addressing with patients, specifically providing occupation and evidence-based interventions. They also identified not feeling confident in working with patients with an orthopedic diagnosis, including assessing range of motion/manual muscle testing or splinting. All groups expressed a concern about documentation, including writing goals and daily notes and performing standardized assessments. The discussion group students also reported prior to the discussion session not feeling confident in a few other areas such as insurance and making in the moment modifications to interventions. A student described his/her feelings as “I am probably most nervous about having to modify something on the spot. I am not always as quick on my feet as I would like to be.” Control group students mentioned concern about interacting with other cultures and logistics related to intervention such as timeframes and providing variety in daily interventions.

After the refresher sessions, interventions continued to be an area of least confidence for the students. The discussion group added providing interventions for patients with cognitive deficits and contraindications/precautions as aspects that they were least confident in. The simulation group also continued to feel least confident in interventions and assessment after working with the SPs; however, the areas of least confidence described were different than before, including difficult transfers, terminating therapy, dressing techniques, safety, and evaluation sequencing. A new aspect that the students reported feeling least confident in after participating in the simulations was looking incompetent in front of the team. A possible explanation for this was the students were put into challenging scenarios where they did not know what to do or say; however, the situations required an immediate response, making them feel less capable in the moment.

Discussion

Fieldwork education is an integral part of OT education and vital for transforming students into practitioners (AOTA, 2016). Participants acknowledged this transition and expressed an excitement about starting fieldwork so they could begin acting and feeling like clinicians, something they had been looking forward to during their academic preparation. However, despite this excitement, the students also expressed concern about being unprepared.

Goldbach and Stella (2017) identified five areas that students lack preparation in for fieldwork: fieldwork readiness (hands-on practice), communication, documentation, confidence, and clinical reasoning. Consistent with Goldbach and Stella (2017), all students in this study reported feeling concerned about and least confident in the areas

of providing hands-on assessment and interventions, documentation, and using their clinical reasoning skills to make in the moment decisions. Also, when asked about their perceptions about beginning fieldwork, some students expressed emotions of nervousness, anxiety, worry, concern, and stress about remembering content, feeling unprepared and in need of a major refresher. Faculty may help to alleviate some of the students' emotions and bolster student skill sets by providing refresher sessions prior to Level II fieldwork. These refresher sessions can provide students with a safe environment to ask questions, express concerns, gain new knowledge, and practice skills, while recognizing that these concerns and need for skill practice are common among their peers and normative as they progress from one phase of their educational experience to another. As students readdress information that may have been learned the year prior, they apply this information using a higher order of critical thinking needed in the clinical setting. Armed with this solid review of the previously learned content, the student should feel more prepared and less anxious.

Overall, all groups (control, discussion, and simulation) exhibited increases between their pre and post test score means related to self-efficacy, except for one statement for the control group related to collaboration. However, the control group was very small, which diminished the robustness of this study. A one-way ANOVA found that there was a statistically significant difference between groups for two of the statements related to collaboration ($p = .010$) and documentation ($p = .045$), with the differences lying between the control group and the discussion group and the control group and the simulation group. Qualitative comments supported these positive findings. All students expressed similar concerns related to perceptions about starting fieldwork and interacting with patients and their knowledge. However, after participating in the refresher sessions, the extent of the concern had decreased with refresher students feeling better prepared and being surprised at how quickly the information came back to them. These findings suggest both refresher sessions had a positive effect, which is consistent with the literature that supports the effectiveness of review sessions (Aamodt, 1982; Poole & Moore, 2016). Therefore, participating in a refresher session as opposed to no participation may be beneficial for students to better prepare them for fieldwork.

Neither the discussion or simulation format proved to be more effective than the other as there were no statistically significant differences between the pre and post self-efficacy ratings, knowledge-based exam scores, or transfer checklist scores for the discussion and simulation groups. Therefore, the simulation format proved to be just as effective as the discussion session that has traditionally been used by academic programs. Consistent with the literature, the simulation students had increased ratings of perceived self-efficacy overall which is associated with simulation education (Gibbs et al., 2017). Also, the simulations provided students with: hands-on practice needed to increase fieldwork preparedness, the challenge of using their clinical reasoning and problem-solving skills in planning and executing assessment and intervention scenarios with the SPs (as opposed to talking through what they would do in specific situations), and the debriefing helped the students identify their areas of strength and need for

improvement (Cahill, 2015; Cheng et al., 2015; Cook et al., 2013; Giles et al., 2014; Goldbach & Stella, 2017; INACSL Standards Committee, 2016a; Mariani et al., 2014).

After participating in the refresher course, simulation students expressed an increased awareness and willingness to learn by making mistakes, indicating a growth mindset. Also, when describing what they felt least confident about, compared to the discussion students who were more broad in describing interventions (e.g. evidence-based, cognitive, modification, client-centered), the simulation students described specific aspects of assessment (e.g. evaluation sequencing) and interventions (difficult transfers, terminating therapy, range of motion/manual muscle testing, dressing, safety/precautions) after their refresher session because they had actually experienced these specific challenges during the simulations. This finding suggests that a simulation refresher session using SPs could also be a good option for programs to offer as an alternative or in addition to a more traditional discussion-based pedagogy. Based on the qualitative data, during these experiential learning sessions, faculty members should offer opportunities for students to practice completing a full assessment, terminating therapy sessions, and teaching specific skills such as adaptive dressing and transfer techniques to patients. Depending on program resources, a combination of offering both refresher formats may be an option for faculty to consider.

One area that the students did not identify as an area of concern or unpreparedness was effective communication and interactions with patients. Contrary to Goldbach and Stella (2017), all students felt confident in their abilities to communicate and interact with patients, relying on their ability to build rapport, express empathy, and utilize their therapeutic use of self. This finding suggests that developing therapist/patient rapport, communication skills, and therapeutic use of self should continue to be a focus in OT curriculum to prepare students for fieldwork.

Implications for Occupational Therapy Education

These findings suggest the importance of implementing refresher sessions within educational programs to help better prepare OT students for fieldwork. To maximize student benefits while balancing faculty effort and program resources, the following recommendations/suggestions are offered:

- Refresher sessions content should include treatment planning for clients with cognitive deficits, modifying and grading interventions, completing a full assessment, and terminating therapy sessions.
- Faculty can make the refresher sessions optional and specific to populations/practice settings so students can choose which session to attend and when depending on their upcoming rotation. This will decrease the total number of students in each session; therefore, making logistical details and scale of simulations more manageable.
- When presenting students with the rationale for participating in refresher sessions, the need to practice previously learned skills and feelings of apprehension should be normalized as part of the educational experience.

- Either a discussion-based session, simulations using SPs, or a combination of formats could be used depending on resources available. The main point is to offer a refresher session for students prior to starting fieldwork.
- While this study included four scenarios and multiple SPs requiring a significant amount of coordination and logistical organization, faculty could start on a smaller scale by implementing one scenario using SPs.
- Faculty could convert an existing paper case into a simulation scenario using SPs to decrease the amount of case development work needed.
- If faculty do not have an established simulation or SP program within their university, they could reach out to theater and or/drama programs on their campus or at other local universities to develop a cross course assignment.
- Faculty could have a student develop, implement, and evaluate a refresher session as a doctoral capstone project. The student could draw from his/her own fieldwork experience to inform session and case content.

Limitations and Suggestions

While the study results were promising related to demonstrating the effectiveness of providing students with a refresher session prior to beginning their Level II fieldwork rotations, there were several limitations to the study. The sample size of 34 was relatively small and there were differences in the control versus experimental group sizes. Also, because a convenience sample from one cohort of students from one university was used, caution is required when making broad generalizations associated with these findings. Additionally, because the control group did not complete the transfer skill competency, a comparison of all three outcome measures could not be performed. Finally, significant resources were required to offer the refresher sessions, particularly for the simulation session (e.g. access to and funds to pay for SPs, availability of fieldwork educators to assess simulated transfers, time required to develop and gather materials for the case scenarios). For some programs, offering either type of refresher session may not be feasible due to lack of resources or faculty time.

To further assess the effectiveness of offering these types of refresher sessions prior to beginning Level II fieldwork, future studies could include a follow-up comparison of the students' self-efficacy ratings to their actual fieldwork scores. Also, this study could be replicated with another cohort of students within Belmont's School of Occupational Therapy and/or at another university. Finally, further studies could examine specific strategies used in each intervention or determine the benefits of combining both formats for optimal student fieldwork preparation.

Conclusion

Level II fieldwork placements allow students to make the transition from being a student to clinician by giving them opportunities to develop clinical and professional skills. Academic programs can help their students best prepare for fieldwork by providing opportunities within the didactic portion of their curriculum to practice individual skills needed such as patient interactions, documentation, evaluation, and intervention planning and execution. In addition to the traditional activities such as lab activities, practicals, and written assignments completed during a given semester, students may

benefit from a refresher session just prior to starting their fieldwork to help increase self-efficacy in current abilities and awareness regarding areas for improvement. Findings from this study suggest that an instructor-led discussion and simulations with standardized patients are both effective ways to provide this type of refresher session to students. Further research to determine refresher session effectiveness using discussion and simulation formats is warranted.

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Appendix A

Perceptions of Fieldwork Preparedness Survey (Based on AOTA Fieldwork Performance Evaluation for the Occupational Therapy Student – AOTA, 2002)

Please rate your perceived ability to perform each of the following tasks using a scale of 0-100 (0 = you believe you cannot do the task at all; 50 = you are moderately certain you can do the task; 100 = you are highly certain you can do the task). Or put any number in between

Safety:

- I can anticipate potentially hazardous situations and can take steps to prevent accidents.
- I can use sound judgment in regard to safety of self and others during all fieldwork related activities.

Basic Tenets:

- I can collaborate with client, family and significant others throughout the occupational therapy process.

Evaluation and Screening:

- I can obtain sufficient and necessary information prior to and during the evaluation process.
- I can assess client factors and context(s) that support or hinder occupational performance.
- I can adjust/modify the assessment procedures based on client's needs, behaviors, and culture.

Intervention:

- I can implement intervention plans that are occupation-based and client-centered.
- I can modify task approach, occupations, and the environment to maximize client performance.
- I can update, modify, or terminate the intervention plan based upon careful monitoring of the client's status.

Communication:

- I can clearly and effectively communicate verbally and nonverbally with clients, families, significant others, colleagues, service providers and the public.
- I can produce clear and accurate documentation according to site requirements.

Professional behaviors:

- I can respond constructively to feedback.
- I can demonstrate positive interpersonal skills including but not limited to cooperation, flexibility, tact and empathy.

For the following questions, perception is defined as: thoughts, feelings, attitudes, and viewpoints.

1. What are your perceptions about beginning your Level II fieldwork in adult physical disabilities? Please describe.
2. What are your perceptions about interacting with and treating future patients? Please describe.
3. What knowledge are you most confident in applying when working with future patients? Please describe.
4. What knowledge are you least confident in applying when working with future patients? Please describe.