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Abstract

A rise in attention to and assistance for human trafficking (HT) victims and survivors has resulted in a call to action for occupational therapists and other healthcare professionals. Victims and survivors often seek healthcare services in a variety of settings, yet ill-equipped healthcare professionals lacking training and self-efficacy with this population have left many unidentified needs unaddressed. Occupational therapists possess the skills necessary to support and assist survivors of HT in their reintegration and healing processes. However, little to no specific training for practitioners in this field has been developed. This study explored how an educational panel of OTs and HT experts who have worked with occupational therapists impacted occupational therapists' knowledge and perceived self-efficacy regarding HT and its intersection with occupational therapy. A 1.5-hour interactive panel was assembled and prepared for a synchronous Zoom meeting by the researchers. Eighty students completed both pre- and post-surveys. Post-panel surveys revealed that students' knowledge of the intersection between HT and occupational therapy improved, their perceived self-efficacy in assisting victims and survivors of HT increased, and their perspective on the panel format and content was favorable. The survey findings also indicated students' desire for continued professional education and occupational therapy practice skills focused on the topic of HT. One way to address the gaps in the knowledge and self-efficacy of healthcare providers is to equip them with knowledge and skills on treating HT victims through training during their didactic curriculum and in clinical practice.

Keywords

Human trafficking, occupational therapy, educational panel

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The Impact of an Educational Human Trafficking Panel on Occupational Therapy Students' Knowledge and Self-Efficacy

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ABSTRACT

A rise in attention to and assistance for human trafficking (HT) victims and survivors has resulted in a call to action for occupational therapists and other healthcare professionals. Victims and survivors often seek healthcare services in a variety of settings, yet ill-equipped healthcare professionals lacking training and self-efficacy with this population have left many unidentified needs unaddressed. Occupational therapists possess the skills necessary to support and assist survivors of HT in their reintegration and healing processes. However, little to no specific training for practitioners in this field has been developed. This study explored how an educational panel of OTs and HT experts who have worked with occupational therapists impacted occupational therapists' knowledge and perceived self-efficacy regarding HT and its intersection with occupational therapy. A 1.5-hour interactive panel was assembled and prepared for a synchronous Zoom meeting by the researchers. Eighty students completed both pre- and post-surveys. Post-panel surveys revealed that students' knowledge of the intersection between HT and occupational therapy improved, their perceived self-efficacy in assisting victims and survivors of HT increased, and their perspective on the panel format and content was favorable. The survey findings also indicated students' desire for continued professional education and occupational therapy practice skills focused on the topic of HT. One way to address the gaps in the knowledge and self-efficacy of healthcare providers is to equip them with knowledge and skills on treating HT victims through training during their didactic curriculum and in clinical practice.

Introduction

Human trafficking (HT) is a recognized human rights violation and a pressing issue for public health systems around the world. Human trafficking is an inhumane crime in which extreme abuse is inflicted by perpetrators whose end goal is to obtain financial gains or some type of benefit from exploiting human subjects. The most recognized types of HT are forced labor and sexual exploitation. Women and girls continue to be overrepresented as victims of this global crime (International Labor Organization [ILO], 2022; Trafficking Victims Protection Act of 2000; U.S. Department of Justice, 2020). In the United States, 25 types of HT have been identified (Polaris Project, 2017). Vulnerable populations in the United States include runaways, non-sexual conforming groups, and racial minorities (U.S. Department of Justice, 2020). There are opportunities to intervene and interrupt the cycle of victimization. Current evidence points to the fact that survivors of HT often engage with healthcare professionals, as they seek services during their exploitation and abuse, particularly in settings such as emergency departments (ED), community care clinics, mental health and dental clinics, and community pharmacies (Chisolm-Straker et al., 2016; Dovydaitis, 2010; Palombi et al., 2018; Ravi et al., 2017; Richie-Zavaleta et al., 2020). These interactions present opportunities for healthcare professionals to intervene. Nonetheless, these opportunities of intervention and protection are hampered by the lack of: specific training, adoption of evaluated identification protocols, and implementation of trauma-informed and compassionate care practices. As a result, survivors of HT continue to go under or unidentified (Chisolm-Straker et al., 2016; Richie-Zavaleta et al., 2021; Stoklosa et al., 2016). These missed opportunities for intervention and restoration result in the continuation of victimization and further increase the victims' risk of negative health outcomes (Preble et al., 2020).

Occupational therapists are key healthcare providers who have the potential to assist with an HT survivor's recovery (Bekmuratova et al., 2021; Gorman & Hatkevich, 2016; Richie-Zavaleta et al., 2022). However, there is a paucity of research on the intersection between occupational therapy and HT survivors. Additionally, content on HT is not widely included in the occupational therapy didactic curriculum. There are few to no clinical opportunities available for occupational therapy students to acquire experience with HT survivors. Therefore, it is critical to equip healthcare professionals, specifically occupational therapy students, with the knowledge and skills required to enhance their role when assisting survivors of HT (Gorman & Hatkevich, 2016; Richie-Zavaleta et al., 2022). One way to address the gaps in the knowledge and self-efficacy of healthcare providers is to equip them with knowledge and skills on how to treat HT victims through training. A few studies have indicated a positive relationship between receiving training and healthcare professionals' knowledge and ability to identify indicators of trafficking more frequently (Beck et al., 2015; Chisolm-Straker et al., 2016; Donnelly et al., 2019; Havig & Mahapatra, 2020; Pardee et al., 2016). Additionally, incorporating HT content into the academic training of students in various healthcare professions will ensure their exposure to the topic early in their clinical careers and increase their preparedness to work with HT victims and survivors.

Despite these current needs in the training of healthcare professionals, few educational interventions have been implemented (Fraley et al., 2018). Some academic curricula have attempted to include HT content in training using various modes, including simulations, online webinars, case-based small group discussions, and online modules (Stoklosa et al., 2017; Talbott et al., 2020). However, these academic curricula were primarily designed for medical students. To begin narrowing the current gaps, this study aimed to organize an educational HT panel for current doctoral occupational therapy students at a midwestern university and to evaluate the impact of the HT panel on the students' perceived knowledge and self-efficacy by collecting pretest and posttest data.

Methods

This study was a single-group pretest-posttest quasi-experimental study. Ethical approval was obtained from the Institutional Review Board of Creighton University. Participants were recruited from a convenience sample of entry-level and post-professional doctoral occupational therapy students attending a midwestern university. Recruitment occurred via e-mail announcements. Due to the anonymous nature of the study, an information letter was given to the participants instead of requiring signed informed consent. Their decision to proceed with the survey after reading the information letter indicated the students' consent to participate in the study. No personally identifiable information was recorded, and IP address tracking was disabled. Participants provided a six-digit identifier (their mother's birthdate) to allow researchers to link the pretest and posttest responses.

Procedures

Each participant completed a pre-panel survey to establish their baseline knowledge of the intersection between HT and occupational therapy. Next, a 1.5-hour virtual panel consisting of two survivors of HT and two occupational therapists who worked with HT survivors was carried out to allow both on-campus and distance students alike to attend the Zoom panel. The panel took place in the spring of 2022 and was facilitated by the primary investigators. The last 20 minutes of the panel time were dedicated for students to ask questions of the panelists. Following the panel, the students completed a post-panel survey that was identical to the pretest survey, with a few additional questions on the panel itself.

Instrument

An online pretest (29 questions) and posttest (33 questions) survey were developed in Qualtrics based on the investigators' expertise and an extensive literature review. The survey was pilot tested with a second-year occupational therapy student enrolled in the program. Seven demographic questions were asked about age, gender, race, ethnicity, year in the program, state of residence, and experience related to HT. Twenty-six close-ended Likert scale questions captured information related to two main domains, specifically knowledge of the intersection between occupational therapy and HT (10 questions) and self-efficacy (11 questions), in assisting survivors of HT. The domain on the intersection between occupational therapy and HT captured familiarity with and understanding of occupational therapy's role in providing rehabilitative services to HT survivors, identifying victims, determining the health needs of victims and survivors,

determining the occupational therapy needs of survivors, determining services occupational therapists can provide to HT survivors, and ensuring collaboration between occupational therapists and other healthcare providers in assisting survivors of HT. The self-efficacy domain captured occupational therapists' comfort with assessing and developing treatment plans to address HT victims/survivors' occupational deficits related to activities of daily living (ADL), instrumental activities of daily living (IADL), meaningful leisure, work/job skills, and social withdrawal, as well as providing services to victims/survivors of HT. This domain also included items to identify the confidence of occupational therapists in building rapport, establishing trust, and using trauma-informed care in assisting HT victims/survivors, as well as familiarity with resources for HT victims/survivors. For items on building rapport, establishing trust, and using trauma-informed care and resources, participants were prompted to describe strategies to accomplish these tasks through open-ended questions. The post-panel online survey had an additional four open-ended questions. Specifically, participants were requested to respond to the following questions focused on the panel:

- Please describe what aspect(s) of this educational panel was/were the most informative and useful.
- Please describe the specific area(s) covered in this educational panel you plan to use with victims/survivors of HT or clients who have experienced trauma in your future clinical practice.
- What types of information were not included in this educational panel that you still wish to learn?
- What format for educational interventions on HT would you like to see in the future?

Data Analysis

For the quantitative portion of the study, descriptive statistics were used to characterize the participants' demographics. Additionally, non-parametric Wilcoxon signed-rank tests were performed to measure knowledge and self-efficacy changes between the pre-and post-panel discussions for each Likert scale item. The Statistical Package for Social Science (SPSS) for Windows version 28 was used for quantitative data analysis. The significance level was set at $p < 0.002$ to account for multiple comparisons. We evaluated the internal consistency and reliability of the two domains of the knowledge of the intersection between HT and occupational therapy and self-efficacy at both the pre-and post-surveys with Cronbach's α . The domain for knowledge of the intersection between HT and occupational therapy demonstrated high internal consistency for both the pre-survey ($\alpha = .882$) and post-survey ($\alpha = .854$). The domain for self-efficacy showed excellent internal consistency for both the pre-survey ($\alpha = .947$) and post-survey ($\alpha = .953$).

To analyze the responses to the open-ended questions in the survey, thematic analysis was applied. Thematic analysis is used to identify, analyze, and interpret patterns of meaning in qualitative data (Nowell et al., 2017). To carry out the thematic data analysis, the research team followed the six phases suggested by Nowell et al. (2017): 1) becoming familiar with the data, 2) generating initial codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and 6) producing the report. In the

first phase, each team member familiarized themselves with the data by reading the responses to open-ended questions independently. Second, each team member independently generated initial codes. Next, team members searched for themes based on the codes individually. In the fourth phase, the research team convened to review the themes. In the fifth phase, with researcher triangulation, the team came to a consensus on themes and finalized themes by defining and naming them. Finally, the research team produced a report on the final themes. Four themes emerged from the first open-ended question focused on the most beneficial aspects of the panel, and another four themes emerged from the second open-ended question on how students plan to apply the knowledge obtained from the panel to their future clinical practice. Finally, for the final open-ended question on what students wish to learn more about the intersection between HT and OT, three themes were identified.

Results

A total of 148 students participated in the pre-survey and 110 students responded to the post-panel discussion survey. Furthermore, 80 students completed both pre- and post-surveys. The participants were overwhelmingly female (97.5%, n=78) and in their first or second years of the program (98.8%, n=79). Approximately 63% (n=50) of the participants resided in Nebraska. Thirty percent of participants (n=24) had no experience related to HT victims/survivors. Participants had gained previous exposure to HT victims/survivors through coursework (36.3%, n=29), clinical/fieldwork (18.8%, n=15), volunteering (11.3%, n=9), and webinars/conferences (11.3%, n=9). Participants with more than one experience of exposure to HT victims/survivors accounted for 18.8% (n = 15).

Quantitative Results

Among the 25 Likert scale items, a significant improvement from the pre- to post-survey was noted for 20 items. On average, post-survey scores were 47% higher than pre-survey scores. The greatest improvement was found for the item “I know what occupational therapy needs of victims/survivors of HT are currently unmet” (mean score increased by 66%, $p < 0.001$), followed by the item “I know what specific services occupational therapists provide to victims/survivors of HT” (mean score increased by 63%, $p < 0.001$). The least significant improvement was found for the item “I understand the important role of occupational therapists in providing holistic rehabilitative services to victims/survivors of HT” (mean score increased by 20%, $p < 0.001$) followed by the item “I know how to identify victims of HT” (mean score increased by 29%, $p < 0.001$). The changes in each item’s score and the test p-values are shown in Table 1.

Table 1*Mean and SD of Item Scores with p-values for the Changes from Pre to Posttest*

Item	Pre-survey			Post-survey			p-value
	N	Mean	SD	N	Mean	SD	
I understand the important role of occupational therapists in providing holistic rehabilitative services to victims/survivors of human trafficking.	80	3.79	0.87	79	4.57	0.63	< 0.001
I know how to identify victims of human trafficking.	80	2.85	0.9	79	3.7	0.82	< 0.001
I know in which clinical settings occupational therapists work with victims/survivors of human trafficking.	80	2.79	0.95	79	4.15	0.75	< 0.001
I know how occupational therapists get referrals from other healthcare professionals to assist victims/survivors of human trafficking.	80	2.34	0.76	79	3.78	0.84	< 0.001
I am familiar with the different health needs of victims/survivors of human trafficking or healthcare services other than occupational therapy.	80	2.86	0.95	79	4.11	0.6	< 0.001
I am familiar with the needs of victims/survivors of human trafficking for occupational therapy services.	80	2.88	0.93	79	4.37	0.54	< 0.001
I know what occupational therapy needs of victims/survivors of human trafficking are currently unmet.	80	2.4	0.81	79	4.01	0.63	< 0.001
I know which other healthcare professionals occupational therapists collaborate with to assist victims/survivors of human trafficking.	80	2.74	0.92	79	4.11	0.58	< 0.001
I know the specific role played by occupational therapists in an interprofessional team in assisting victims/survivors of human trafficking.	79	2.57	0.76	79	4.13	0.49	< 0.001
I know what specific services occupational therapists provide to	79	2.58	0.81	79	4.23	0.55	< 0.001

victims/survivors of human trafficking.							
I feel comfortable providing occupational therapist services to victims/survivors of human trafficking.	80	2.18	1.09	79	3.51	0.89	< 0.001
I can assess victims/survivors of human trafficking for various occupational deficits related to the following: ADLs.	78	4.19	1.09	78	4.01	1	0.203
I can assess victims/survivors of human trafficking for various occupational deficits related to the following: IADL.	77	4.14	1.1	76	4.03	0.95	0.465
I can assess victims/survivors of human trafficking for various occupational deficits related to the following: meaningful leisure.	77	4.12	0.99	72	4.13	0.95	0.494
I can assess victims/survivors of human trafficking for various occupational deficits related to the following: work/job skills.	77	3.99	1.02	75	3.99	0.95	0.95
I can assess victims/survivors of human trafficking for various occupational deficits related to the following: social withdrawal.	76	3.83	0.93	73	3.86	1.03	0.647
I can develop a treatment plan to address the needs of victims/survivors of human trafficking on the following: ADLs.	79	2.87	1.1	75	3.87	0.93	< 0.001
I can develop a treatment plan to address the needs of victims/survivors of human trafficking on the following: IADL.	77	2.83	1.07	74	3.85	0.96	< 0.001
I can develop a treatment plan to address the needs of victims/survivors of human trafficking on the following: meaningful leisure.	78	2.83	1.07	74	3.93	0.97	< 0.001
I can develop a treatment plan to address the needs of victims/survivors of human trafficking on the following: work/job skills.	77	2.73	0.97	71	3.86	0.93	< 0.001
I can develop a treatment plan to address the needs of	78	2.56	0.89	74	3.69	1.05	< 0.001

victims/survivors of human trafficking on the following: social withdrawal.							
I know how to build rapport with victims/survivors of human trafficking in my future clinical practice.	80	2.95	0.913	79	4.23	0.576	< 0.001
I know how to establish trust with victims/survivors of human trafficking in my future clinical practice.	80	2.93	0.854	79	4.08	0.526	< 0.001
I know how to assist victims/survivors of human trafficking in my future clinical practice without further traumatization.	80	2.46	0.885	78	3.72	0.788	< 0.001
I am familiar with resources to provide to victims/survivors of human trafficking in my future clinical practice.	80	2.35	0.765	79	3.76	0.82	< 0.001

SD = Standard deviation

Qualitative Results

Thematic analysis of the four qualitative questions in the post-survey yielded information regarding how the panel was informative for the students, how they plan to apply the knowledge gained from the panel to their future clinical practice, and what they wish to learn further about HT in the future. For the first question, students reported the benefits of the panel in four main areas, including having the first voices of panelists (both survivors of HT and OTs), hearing how OTs were instrumental in survivors' healing journeys, hearing how survivors of HT interacted with healthcare professionals, and acquiring the resources provided by panelists to students at the panel. See Table 2 for a summary of the qualitative response themes for the most beneficial aspects of the educational panel on HT.

Table 2*Qualitative Themes of the Most Beneficial Aspects of Human Trafficking Educational Panels*

Theme	Respondents' Direct Quotes
First voice of panelists comprising survivors and OTs	<p><i>“Being able to hear real people talk about this topic is so important. It changes knowledge from reading studies and textbooks to understanding through real stories.”</i></p> <p><i>“Hearing directly from people who have experienced human trafficking and what they found helpful/harmful throughout their therapy journeys was very informative.”</i></p> <p><i>“The testimonies of both survivors and occupational therapist experts in the particular population is an irreplaceable aspect of learning. The firsthand account provided me with real data backed by experience. These experts know the greatest needs for this population and the best ways that OTs can serve.”</i></p>
Impact of OTs on survivors' healing journeys	<p><i>“Hearing the survivors' perspectives on how their OTs were able to connect with them and what their OTs did that resonated with them/helped them the most was the most useful.”</i></p> <p><i>“I enjoyed learning about what occupational therapy looked like in this very niche practice. I liked the mental health focus and the idea of letting the client go at their own pace. Additionally, it was awesome to see how big of an impact the OT made on the lives of the survivors.”</i></p> <p><i>“I really enjoyed listening to what an occupational therapist was doing for people who have experienced human</i></p>

Survivors' interactions with healthcare professionals

trafficking. I never would have thought that an OT can really be that involved in the recovery process."

"I thought hearing the survivor's perspective of their healthcare they have received and how they were misdiagnosed many times [was most helpful]."

"Hearing directly from people who have experienced human trafficking and what they found helpful/harmful throughout their therapy journeys was very informative."

"Hearing from the survivors of human trafficking and their opinions is what we can do as healthcare professionals."

Resources provided by panelists during the panel

"It was useful to learn about what is helpful and what is not, and the wealth of resources distributed was also helpful!"

"OTs' role and list of resources offered by panelists [were most helpful]."

"The utilization and distribution of resources was inspiring."

Students were asked to share how they plan to use newly gained knowledge from the HT educational panel in working with survivors of HT or clients who have experienced trauma in their future clinical practice. Four major themes emerged from the data analysis: a) empowering survivors, b) applying trauma-informed care, c) using soft skills, and d) using various occupational therapy interventions. Table 3 provides a summary of the themes with direct quotes from participants.

Table 3

Qualitative Themes for How Students Plan to Apply Knowledge from the HT Panel to their Future Clinical Practice

Theme	Respondents' Direct Quotes
Empowerment of survivors (giving power to survivors)	<p><i>"I learned how to best approach individuals who have survived human trafficking in the best manner. OTs usually love to ask questions, but allowing the individual to take the lead and only share what they want is something I will consider in practice."</i></p> <p><i>"I think the practice that every client [expects] is different, with a different and usually difficult story. I would approach evaluation and intervention from a less 'standardized' way. I would let the client lead the sessions with how much/little they are comfortable sharing and needing. Furthermore, I would be aware of trauma-informed care strategies. I would like the client to feel completely heard, seen, and safe."</i></p> <p><i>"I plan to listen, not push them to share information until they are ready to share it themselves, and really take the time to listen."</i></p>
Using trauma-informed care	<p><i>"I plan to use trauma informed care techniques, such as focusing on the individual as a person rather than as a victim. This includes asking questions not related to their human trafficking experience."</i></p> <p><i>"I think first and foremost is the trauma informed approach, letting them talk at their own pace, and really asking for collaboration or input from them. They are the subject matter expert, and we would like to assist them with their goals."</i></p>

Application of soft skills

“Using trauma-informed care will be extremely important in this area of practice. In OT school, we are always taught to ask a lot of questions in our evaluations, but that is not necessarily the case with this population. Asking too many of them can cause further trauma.”

“Using skills such as being non-judgmental of behaviors, telling stories, and taking action [is important]. I plan to be a good judge of how to respond to traumatic behaviors and be able to listen to heinous occurrences and manage emotional blow-ups. These are all skills to provide trauma-informed care.”

“Never saying ‘trust me’ because the same people who told them that were the ones who hurt them. Assessing what their needs are and how I, as an OT, can provide those [is important]. Care for their whole being/person. Have compassion, empathy, and sensitivity. Never ask them to tell you their story. People always ask that, and it can be traumatic to have to relive that every time.”

“To build rapport and really help someone, it’s best to listen and let them tell you their story. It’s on their time.”

Using various occupational therapy interventions

“Relaxation techniques and self-affirmation to adequately be able to get back to their regular everyday life while battling the PTSD or other effects they have [are important].”

“I will be mindful of what my clients wish to be referred to as (victims, survivors, etc.), as it can be very harmful and dismissive to refer to them as something they don’t identify with.”

“It was very helpful to hear about interventions such as vision boards and

crafts. I also really appreciated learning about how to let the survivor tell their story at their own pace, which may be different from the traditional ways OTs typically gather information for the occupational profile. This was very helpful advice.”

Finally, students reported what they wished to learn about the intersection between occupational therapy and HT that was not covered in the panel. Their suggestions centered on three main themes: a) the referral process of survivors of HT from healthcare providers to OTs in various healthcare settings, b) the role of OTs in interprofessional healthcare team collaboration, and c) HT content in occupational therapy curricula and education. Table 4 provides a summary of the qualitative themes and direct participant quotes.

Table 4

Qualitative Themes for What Students Wish to Learn More About Regarding the Intersection Between Human Trafficking and Occupational Therapy

Theme	Respondents' Direct Quotes
Referral process of HT survivors to OTs in various healthcare settings	<p><i>“How do these clients get referrals, how can we advocate to receive referrals, what kind of settings are these practitioners working in, and what kind of extra training do they have to work with this population?”</i></p> <p><i>“I would like to learn more about why these individuals were/continue to be referred to occupational therapy; for instance, are they simply referred because they have been trafficked? Or are there diagnoses secondary to the individuals' trafficking experience?”</i></p> <p><i>“I think certain resources that we could refer the survivors to outside of OT would be helpful. I think learning ways in which we could provide advice for healthy relationships would also be helpful.”</i></p>

Interprofessional team collaboration

“How to best communicate with other professionals who are not understanding of or utilizing trauma-informed care principles with clients who are survivors [is something I’d like to learn].”

“More information on how occupational therapists work with other healthcare professionals in this setting [is something I’d like to learn].”

“Also, I wasn’t clear on who is part of the interprofessional team. They mentioned that it ‘takes a village,’ but who are the other members of that village?”

HT content in OT curriculum/education

“How to become specialized in this area of practice (certifications, etc.), what settings OTs would work in to work with this population [are things I’d like to know].”

“I have never heard the perspective of a male survivor of HT, and I think that their perspective would offer even additional information for me as a future clinician. Especially because so many people have the stereotype that this doesn’t happen to men, but it does, so I think being able to hear from them and learn from them could go a long way in being an advocate.”

“I think it would be helpful to see a mock session between an OT and a survivor. It can be said ‘this is the intervention you can do and that is helpful,’ but I would enjoy seeing how exactly that intervention is done with a client.”

Discussion

To our knowledge, this is the first study to assess the impact of an educational HT panel consisting of survivors and occupational therapists on students. The literature indicates that formal HT training for occupational therapy students is lacking (Bekmuratova et al., 2021), and more research is needed on HT education among occupational therapy students. Our findings provide evidence to support the short-term positive impact of an

educational HT interactive panel with survivors on doctoral occupational therapy students' knowledge and self-efficacy in serving HT survivors. The findings of our study substantiate previous studies that evaluated the effectiveness of educational interventions focused on HT among healthcare students. Using the pretest-posttest design, Hoffman and Argeros (2022) and Lutz (2018) found that HT educational interventions increased community health nursing and nurse practitioner students' knowledge of various domains of HT, including knowledge, victim identification, treatment of victims, and increased confidence in engaging with HT victims. Similarly, Mercer et al. (2018) found that the implementation of web-based learning modules among medical students significantly increased medical students' confidence in their ability to identify and support victims of sex trafficking. Another study conducted among third-year medical students by Weiss and Kiluk (2018) revealed that after an HT educational program provided an experiential learning activity to medical students, their knowledge about HT and their confidence in identifying HT improved. A study conducted by Birks and Ridley (2021) at Northumbria University that included occupational therapy among other healthcare professional students in their sample concluded that educating students on sexual exploitation through an interprofessional education approach positively enhanced students' knowledge and understanding of sexual exploitation, as well as their pivotal role as healthcare professionals.

Doctoral occupational therapy students in our sample showed statistically significant increases in all domains except for one on HT knowledge and self-efficacy. Students' ability to assess HT victims' and survivors' various occupational deficits related to ADL, IADL, meaningful leisure, work/job skills, and social withdrawal captured by five items did not significantly improve after attending the HT panel. This might be due to the fact that the occupational therapists on the panel did not extensively address the assessments they used in identifying occupational deficits when they worked with survivors of HT. Additionally, this could be because the majority of students in our sample were in their second year (65%), and at that stage of their didactic curriculum, students are knowledgeable about various assessments of occupational deficits.

In addition to providing quantitative results on the impact of the HT educational panel, this study also provided qualitative themes to support the quantitative findings. The findings showed that doctoral occupational therapy students benefited from the HT educational panel in four main ways: hearing stories from survivors and occupational therapists, understanding the impact of occupational therapists on survivors' healing journey, hearing about survivors' experience with other healthcare professionals and misdiagnosis, and acquiring the resources provided to them by the panelists. Furthermore, four themes emerged that captured doctoral occupational therapy students' future application of knowledge obtained from the educational HT panel in their future clinical practice. The themes included the empowerment of survivors, using trauma-informed care, using soft skills, and using various occupational therapy interventions. Some of these themes in our study, such as rapport building and empowering survivors, were aligned with the qualitative findings of Clendon et al.'s (2022) study in which they implemented HT simulation with victims of HT among 123 undergraduate nursing students. These results support the idea that survivor

empowerment, applying trauma-informed care, and building soft skills can be possible when survivors are incorporated into the educational intervention, such as a panel or simulation. Lastly, this study also captured the areas that doctoral occupational therapy students wished to learn more about in terms of the intersection between HT and occupational therapy. Specifically, they wish to better understand the referral process of HT survivors to occupational therapists in various settings, how occupational therapists could collaborate with other healthcare professionals in interprofessional teams, and the specific HT content they would like to see in the future occupational therapy curriculum.

Implications for Occupational Therapy Education

The findings of this study have the following implications for occupational therapy practice and education:

- The use of educational HT interventions with subject matter experts improves the perceived knowledge and self-efficacy of doctoral occupational therapy students at the intersection of HT and occupational therapy.
- Although HT content is not widely covered in formal occupational therapy training, incorporating low-cost and innovative options, such as educational HT panels, into the occupational therapy curriculum can effectively facilitate student learning and preparedness in assisting HT survivors in their future clinical practice.
- Based on the specific HT content areas highlighted by the study participants, occupational therapy programs across the nation should consider integrating HT content areas into their curricula.
- Equipping doctoral occupational therapy students with HT knowledge will reinforce the potentially significant role played by occupational therapists in rehabilitating HT survivors and will expand the scope of occupational therapy practice.

Limitations

This study is not without limitations. The utilization of a non-probabilistic sample of doctoral occupational therapy students limits the ability to generalize the findings to all doctoral occupational therapy students. In addition, given the post-survey data collection timeline, the results only demonstrate the short-term impact of the educational panel on the participants. Therefore, an evaluation of the long-term impact is needed to fully understand the effectiveness of HT panels. Finally, the lack of a validated tool may reduce the reliability of the findings.

Conclusion

This study found that occupational therapy students perceived an educational panel featuring OTs and subject matter experts in occupational therapy to be beneficial to their learning. The survey results demonstrated that the panel had a positive impact on the knowledge level and on the self-efficacy of the students who expressed an eagerness to continue learning more about the subject. A synchronous panel presentation is a relatively low-cost and high-impact teaching method. Occupational therapy educators searching for innovative ways to incorporate education at the intersection of occupational therapy and HT into their didactic curriculum may want to consider this option.

References

- Beck, M. E., Lineer, M. M., Melzer-Lange, M., Simpson, P., Nugent, M., & Rabbitt, A. (2015). Medical providers' understanding of sex trafficking and their experience with at-risk patients. *Pediatrics*, 135(4), 895–902.
<https://doi.org/10.1542/peds.2014-2814>
- Bekmuratova, S., Richie-Zavaleta, A. C., & Boyle, C. (2021). Human trafficking: An evaluation of doctoral occupational therapy students' awareness, knowledge, self-efficacy, and future training. *Journal of Human Trafficking*, 1–12.
<https://doi.org/10.1080/23322705.2021.1980713>
- Birks, E., & Ridley, A. (2021). Evaluating student knowledge about sexual exploitation using an interprofessional approach to teaching and learning. *British Journal of Nursing*, 30(10), 600–607 <https://doi.org/10.12968/bjon.2021.30.10.600>
- Chisolm-Straker, M., Baldwin, S., Gaïgbé-Togbé, B., Ndukwe, N., Johnson, P., & Richardson, L. (2016). Health care and human trafficking: We are seeing the unseen. *Journal of Health Care for the Poor and Underserved*, 27(3), 1220-33.
<https://doi.org/10.1353/hpu.2016.0131>
- Clendon, S., Dwyer, C., & Fiorta, A. (2022). Human trafficking simulation in an undergraduate nursing home. *Clinical Simulation in Nursing*, 66, 1–4.
<https://doi.org/10.1016/j.ecns.2022.02.004>
- Donnelly, E. A., Oehme, K., Barris, D., & Melvin, R. (2019). What do EMS professionals know about human trafficking? An exploratory study. *Journal of Human Trafficking*, 5(4), <https://doi.org/10.1080/23322705.2018.1448956>
- Dovydaitis T. (2010). Human trafficking: The role of the health care provider. *Journal of Midwifery & Women's Health*, 55(5), 462–467.
<https://doi.org/10.1016/j.imwh.2009.12.017>
- Fraleigh H. E., Aronowitz T., & Jones E. J. (2018). School nurses' awareness and attitudes toward commercial sexual exploitation of children. *Advances Nursing Science*, 41(2), 118-136.
<https://doi.org/10.1097/ANS.0000000000000197>
- Gorman, K. W., & Hatkevich, B. A. (2016). The issue is—Role of occupational therapy in combating human trafficking. *American Journal of Occupational Therapy*, 70, 7006360010. <https://doi.org/10.5014/ajot.2016.016782>
- Having, K. & Mahapatra, N. (2020). Health-care providers' knowledge of human trafficking: Implications for building service capacity in a frontier state. *Journal of Human Trafficking*, 7(4), 366-383,
<https://doi.org/10.1080/23322705.2020.1747011>
- Hoffman, J. L., & Argeros, G. (2022). Researching the effectiveness of an online human trafficking awareness program among community health nursing students. *Journal of Community Health Nursing*, 39(2), 107–120.
<https://doi.org/10.1080/07370016.2022.2058202>
- International Labor Organization [ILO]. (2022). *Forced labor, modern slavery and human trafficking*. <https://www.ilo.org/global/topics/forced-labour/lang--en/index.htm>

- Mercer, L., Ludwig, A., Smith, J., Erickson, L., & Manriquez, M. (2018). The use of standardized patients to increase medical student awareness of and confidence in screening for human trafficking. *Obstetrics and Gynecology*, 132, 49s. <https://doi.org/10.1097/01.AOG.0000546646.85990.78>
- Lutz, R. M. (2018). Human trafficking education for nurse practitioners: Integration into standard curriculum. *Nurse Education Today*, 61, 66–69. <https://doi.org/10.1016/j.nedt.2017.11.015>
- Nowell, L. S., Norris, J. M., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1). <https://doi.org/10.1177/1609406917733847>
- Palombi, L., Van Ochten, H., & Patz, C. (2018). The pharmacists' role in identifying and supporting victims of human trafficking. *Journal of Human Trafficking*, 5, 1–12. <https://doi.org/10.1080/23322705.2018.1494486>
- Pardee, M., Munro-Kramer, M., Bigelow, A., & Dahlem, G. (2016). Identifying domestic minor sex trafficking. *The Clinical Advisor: For Nurse Practitioners*, 19(6), 26.
- Polaris Project. (2017, March 1). *The typology of modern slavery: Defining sex and labor trafficking in the United States*. <https://polarisproject.org/resources/the-typology-of-modern-slavery-defining-sex-and-labor-trafficking-in-the-united-states/>
- Preble, K. M., Tlapek, S., & Koegler, E. (2020). Sex trafficking knowledge and training: Implications from environmental scanning in the American Midwest. *Violence and Victims*, 35(3), 363–381. <https://doi.org/10.1891/VV-D-19-00042>
- Ravi, A., Pfeiffer, M., Rosner, Z., & Shea, J. (2017). Identifying health experiences of domestically sex-trafficked women in the USA: A qualitative study in Rikers Island Jail. *Journal of Urban Health*, 94(3), 1–9. <https://doi.org/10.1007/s11524-016-0128-8>
- Richie-Zavaleta, A. C., Villanueva, A. M., Homicile, L. M., & Urada, L. A. (2021). Compassionate care—Going the extra mile: Sex trafficking survivors' recommendations for healthcare best practices. *Sexes*, 2(1), 26–49. <https://doi.org/10.3390/sexes2010003> PMID:34485751
- Richie-Zavaleta, A. C., Villanueva, A. M., Martinez-Donate, A., Turchi, R. M., Ataiants, J., & Rhodes, S. M. (2020). Sex trafficking victims at their junction with the healthcare setting—A mixed-methods inquiry. *Journal of Human Trafficking*, 6(1), 1–29. <https://doi.org/10.1080/23322705.2018.1501257>
- Richie-Zavaleta, A. C., Bekmuratova, S., Pray, M., & Saylor, M. (2022). Core guiding principles for applied practice in prevention, identification, and restoration: Anti-trafficking efforts for better health outcomes. In S. K. Andrews & C. M. Crawford (Eds.), *Paths to the prevention and detection of human trafficking* (pp. 106–126). IGI Global. <https://doi.org/10.4018/978-1-6684-3926-5.ch006>
- Stoklosa, H., Lyman, M., Bohnert, C., & Mittel, O. (2017). Medical education and human trafficking: Using simulation. *Medical Education Online*, 22. <https://doi.org/10.1080/10872981.2017.1412746>
- Stoklosa, H., Dawson, M., Williams-Ohi, F., & Rothman, E. (2016). A review of U.S. health care institution protocols for the identification and treatment of victims of human trafficking. *Journal of Human Trafficking*, 3(2), 1–10. <https://doi.org/10.1080/23322705.2016.1187965>

- Talbott, J. M. V., Dutcher, J. S., Pougner, C.A., Calvin, S. L., Roe-Sepowitz, D., & Kling, J. M. (2020). Review of published curriculum on sex trafficking for undergraduate medical trainees. *American Journal of Preventive Medicine*, 58(4), 604-611.
<https://doi.org/10.1016/j.amepre.2019.11.013>
- Trafficking Victims Protection Act (TVPA). *Victims of Trafficking and Violence Protection Act of 2000*; U.S. Congress: Washington, DC, USA, 2000.
- United States Department of Justice. (2020). *What is human trafficking?*
<https://www.justice.gov/humantrafficking/what-is-human-trafficking>
- Weiss, A., & Kiluk, V. (2018). Teaching human trafficking to 3rd year medical students. *Journal of Adolescent Health*, 62, S20–S36
<https://doi.org/10.1016/j.jadohealth.2017.11.056>