

Journal of Occupational Therapy Education

Volume 6 | Issue 1 Article 8

2022

Telehealth vs Face to Face Pediatric Screenings: A Pilot Study

Katherine S. Ryan-Bloomer Rockhurst University

Joan Ziegler Delahunt Rockhurst University

Follow this and additional works at: https://encompass.eku.edu/jote



Part of the Occupational Therapy Commons

Recommended Citation

Ryan-Bloomer, K. S., & Delahunt, J. Z. (2022). Telehealth vs Face to Face Pediatric Screenings: A Pilot Study. Journal of Occupational Therapy Education, 6 (1). https://doi.org/10.26681/jote.2022.060108

This Original Research is brought to you for free and open access by the Journals at Encompass. It has been accepted for inclusion in Journal of Occupational Therapy Education by an authorized editor of Encompass. For more information, please contact Linda.Sizemore@eku.edu.

Telehealth vs Face to Face Pediatric Screenings: A Pilot Study

Abstract

The global pandemic heightened the importance of occupational therapy (OT) education programs to prepare students for telehealth practice. The objective was to examine the following research questions: 1. Does self-assessment of pediatric competency skills improve following participation in pediatric screenings? 2. Is there a difference in self-assessment of pediatric competency skills between those students who perform pediatric screenings via telehealth versus face-to-face? 3. What is the lived experience for students who perform telehealth and face-to-face pediatric screenings? A mixed methodquasi-experimental design and phenomenological tradition were employed. The study utilized online surveys, focus groups, telehealth screenings with an urban preschool, and face-to-face screenings at a Christian suburban preschool in the Midwest. Participants included forty-nine first year, Master of OT students at a private university. Students performed screenings using the ASQ-3 via telehealth or face-toface formats. Outcomes measures included: Self-Assessment of Competency- Pediatric Screening (SAC-PS) survey, Pediatric Screening Experience Survey, and Focus Group Semi-Structured Interview Questions. No statistically significant differences were found on SAC-PS scores between formats, F (11, 49) = .661, p. = .76, n^2 = .17. Post-screening scores were statistically significantly higher (M = 48.95, SD = 4.02) than pre-screening (M = 43.58, SD = 4.69) for all students, F (11,49) = 36, p2 = .58. Improvements from pre-to post-pediatric screenings were found for ten of eleven questions at the p

Keywords

Telehealth, pediatrics, screening, self-assessment of competency, face-to-face

Creative Commons License



This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License.

Acknowledgements

The authors would like to thank the occupational therapy students, teachers, administrators, and children who made this study possible. Thanks also to Karra Kennedy, Becky Meyers, Angela Grojean, Sarah Finnegan, and Daryian Otto for their assistance with the screenings.



Volume 6, Issue 1

Telehealth vs Face to Face Pediatric Screenings: A Pilot Study

Katherine (Katie) S. Ryan-Bloomer, PhD, OTR/L
Joan Ziegler Delahunt, OTD, MS, OTR/L
Rockhurst University
United States

ABSTRACT

The global pandemic heightened the importance of occupational therapy (OT) education programs to prepare students for telehealth practice. The objective was to examine the following research questions: 1. Does self-assessment of pediatric competency skills improve following participation in pediatric screenings? 2. Is there a difference in selfassessment of pediatric competency skills between those students who perform pediatric screenings via telehealth versus face-to-face? 3. What is the lived experience for students who perform telehealth and face-to-face pediatric screenings? A mixed method- quasi-experimental design and phenomenological tradition were employed. The study utilized online surveys, focus groups, telehealth screenings with an urban preschool, and face-to-face screenings at a Christian suburban preschool in the Midwest. Participants included forty-nine first year, Master of OT students at a private university. Students performed screenings using the ASQ-3 via telehealth or face-toface formats. Outcomes measures included: Self-Assessment of Competency-Pediatric Screening (SAC-PS) survey, Pediatric Screening Experience Survey, and Focus Group Semi-Structured Interview Questions. No statistically significant differences were found on SAC-PS scores between formats, F (11, 49) = .661, p = .76, Ω^2 = .17. Post-screening scores were statistically significantly higher (M = 48.95, SD = 4.02) than pre-screening (M = 43.58, SD = 4.69) for all students, F (11.49) = 36, p<.001, $\Omega^2 = .58$. Improvements from pre-to post-pediatric screenings were found for ten of eleven questions at the p<.05 level. Seven overall themes and subthemes emerged. Students reported increased competence and confidence after participating in pediatric screenings regardless of administration method. Telehealth and face-face experiential learning is possible and beneficial to embed within OT curriculum.

Introduction

The onset of COVID-19 dramatically changed the way occupational therapy education programs delivered content to their students (Gustaffson, 2020). The need to provide safer student clinical experiences forced educational programs to quickly pivot to remote online learning, simulation software, and telehealth. This study sought to determine whether a difference existed between the self-assessment of pediatric competency skills between first-year occupational therapy students who performed pediatric screenings via face-to-face versus telehealth formats.

Instruction of Telehealth Practices within Occupational Therapy

The Accreditation for Certification of Occupational Therapy Education (ACOTE) requires that occupational therapy programs teach students about telehealth methods, payment, and documentation within their curriculums (ACOTE, 2018). Although programs provide introductory telehealth content, few offer clinical learning experiences in a virtual format. Prior to the pandemic, some practitioners utilized telehealth in their practices with the research showing promising clinical outcomes (Cole et al., 2016; Collier et al., 2016; Hilyard et al., 2020; Hung & Fong, 2019; Jacobs et al., 2012; Rortvedt & Jacobs, 2019). Despite the evidence supporting the potential benefits for teaching and practicing telehealth occupational therapy, the buy-in was not there until the pandemic hit, which transformed all forms of healthcare and education for people living across the globe (Gustaffson, 2020; Hoel et al., 2021). With many occupational therapists shifting to providing telehealth services, the opportunity for students to observe telehealth screening and evaluation grew (Dahl-Popolizio et al., 2020).

Telehealth and Telerehabilitation in Occupational Therapy

Telehealth involves the use of technologies such as "live, real-time videoconferencing, teleconferencing, or mobile, telephone application technology to plan, implement, and evaluate occupational therapy intervention, education, and consultation" (American Occupational Therapy Association [AOTA], 2020, p. 62). Evidence suggests that telehealth is versatile as it allows interaction with a wide variety of clients who live in rural and underserved communities; this evidence also relays the importance of client training on how to access and use telehealth as an alternative platform (Cotton et. al, 2017; Little & Wallisch, 2019). However, providing therapy services in a virtual environment requires training not only for current practitioners and clients (Hoel et al., 2021), but also for students to learn the evolving essential and unique skills of competently performing telehealth screening, evaluation, and intervention in a mid-pandemic world (Dunleavy et al., 2013; Gustaffson, 2020).

Competency Development

Competency-based education is growing across multiple health professions to enhance knowledge, clinical reasoning, problem solving and technical skills (St. John et al., 2020; Verma et al., 2006; Verma et al., 2009). Faculty utilize experiential learning strategies to develop student competency, which is defined as ability to acquire the necessary knowledge, skills, and values for the profession. Chun et al. (2020) found in their scoping review that the key competency areas fall into four themes: Professional Attitudes, Professional Communication, Collaboration and Quality Service Delivery.

Experiential learning builds on these four areas of competency, specifically screening and assessment procedures, with the goal of translation of knowledge into clinical practice. Weaving in experiential learning opportunities proves to be an effective method for improving the understanding and application of knowledge in clinical practice (Knecht-Sabres, 2013). Further, Knecht-Sabres (2013) suggested "additional experiential learning opportunities would serve to help 'bridge the gap' between academia and clinical practice" (p. 32). Knowing that "hands-on" practice is critical to development of clinical reasoning and professional behaviors, many programs intentionally design active learning experiences to develop specific competencies including performing pediatric screenings. Assessing self-reported competency of students facilitates increased reflection and integration of learning (Phillips, 2017).

Navigating Challenges to Provide Pediatric Active Learning

Occupational therapy education programs are charged to embed pediatric screening and assessment within their curriculums (ACOTE, 2018; Rodger et al., 2006). Few programs embed course activities promoting practice of pediatric screening skills within authentic contexts (Beck & Barnes, 2007; Del Rossi et al., 2017; Lau, 2016). Evidence supports that experiential learning may improve graduate confidence for the application of skills in future practice (Philips, 2017). The onset of Covid-19 health and safety precautions limited groups and reduced availability for community-based learning experiences. These precautions demanded that occupational therapy faculty pivot their traditional face-to-face approaches to innovative virtual active learning options. Research recognizes the importance of developing a curriculum to support occupational therapy practitioners' increased competency in providing effective telehealth to clients through a theoretical model focused on clinical reasoning in telehealth (Dunleavy et al., 2013; Dahl-Popolizio et al., 2020; Hoel et al., 2021).

Telehealth versus Face-to-Face Experiences

More emerging studies focus on the difference between the delivery of face-to-face versus telehealth formats, specifically among practitioners. A study by Dahl-Popolizio et al. (2020) found 77% of the 230 occupational therapy practitioners surveyed representing 32 of the 50 states supported telehealth as an alternative for in-person services and 78% agreed that telehealth may be a permanent option for occupational therapy service delivery. It is important to note that over 60% of the study participants worked in pediatric settings (school-based and early intervention). Although the findings supported telehealth as beneficial for producing clinical competency and positively impacting client outcomes, participants reported technical issues, lack of personal contact and the fact that telehealth is not effective for all populations. Therefore, it is recommended to include the positive and negative aspects of telehealth within the clinical training for practitioners wanting to utilize telehealth in practice.

Further, telehealth may offer a suitable option for education programs to provide valuable clinical instruction in a virtual space. Cameron et al. (2019) compared competence of health professionals following completion of communication partner training (CPT) to deliver services for clients with aphasia. The professionals attended

the course face to face or via telehealth. Results revealed no statistically significant difference between groups and both groups had statistically significant improvements in their communication skills regardless of the format.

Few studies exist which examine student learning after participation in telehealth experiential opportunities (Cotton et al., 2017; Shortridge et al., 2016) and even fewer comparing student learning in students who participated in telehealth compared to those who participated in face-to-face occupational therapy learning activities. Cotton and colleagues (2017) investigated the effectiveness of various teaching strategies for occupational and physical therapy practitioners and students to administer preemployment assessments. No statistically significant differences were found between students and therapists who participated in face to face, real time videoconferencing, group-based online modules, and individual online modules. All participants were able to display above 75% on the competency assessments indicating that the telehealth strategies may be just as effective as face-to-face interactions.

Problem, Purpose, and Research Questions

Telehealth is a growing service delivery method of occupational therapy and occupational therapy education programs need to provide students authentic learning experiences to perform telehealth practice within the curriculum. Minimal research exists evaluating the effectiveness of telehealth pediatric screening activities embedded within occupational therapy curriculums. Furthermore, few studies compare the self-assessment of competency of occupational therapy (OT) students performing pediatric screenings in a telehealth versus face-to-face format. The purpose of this pilot study was to answer the following research questions: 1. Does self-assessment of pediatric competency skills statistically significantly improve following participation in pediatric screenings? 2. Is there a statistically significant difference in self-assessment of pediatric competency skills between those students who perform pediatric screenings via telehealth versus face-to-face? 3. What is the lived experience for OT students who performed telehealth and those students who performed face-to-face pediatric screenings?

Methods

Research Design

A mixed methods design was employed utilizing a quasi-experimental mixed design and phenomenological tradition.

Participants

The participants included first-year students enrolled in a Master of Occupational Therapy program at a private, faith-based university in a Midwestern city. Inclusion criteria required participants to be enrolled as students in the occupation lifespan course at the university, perform the pediatric screening via telehealth or face-to-face, and to complete pre- and post-surveys. Participants were excluded from the study if they did not provide consent for their data to be used for analysis. Purposive and convenience sampling were used.

Setting

The surveys were administered electronically. The focus group meeting was held virtually via a Zoom meeting. The telehealth screenings occurred using a secured Zoom call with an urban preschool serving a racially diverse, lower socio-economic population. The child participants were pre-kindergarten students. The pediatric screenings occurred in an empty classroom with two child-sized tables, chairs, and a sink. An I-pad and a laptop projected the Zoom sessions. Facilitators adjusted the camera view as needed during the screenings.

The face-to-face developmental screenings were at a faith-based preschool in a suburban area of the Midwestern city with three- to five-year-old children. This preschool serves primarily middle to upper middle-class socio-economic children. For the face-to-face screenings, the occupational therapy students prepared in a large fellowship room. They performed screenings in individual, smaller rooms equipped with child-sized tables, chairs, toys, and access to a bathroom with a sink. The groups could expand into the gym area and playgrounds as appropriate. Following both screening formats, the OT students consulted with the child participants' teachers if needed.

Instruments and Materials

Self-Assessment of Competency-Pediatric Screening (SAC-PS)

The self-assessment of competency-pediatric screening (SAC-PS) survey includes eleven questions assessing students' self-assessment of pediatric competency skills. This assessment was self-created by the principal investigator (PI) since no validated assessments of self-assessment of competency of pediatric skills currently exist. The SAC-PS was initially created as a pilot assessment three years ago with the occupational and physical therapy students who administered the pediatric screenings face-to-face. The tool revealed statistically significant improvements from pre-post screenings in numerous items (Ryan-Bloomer & Decker, 2019). The PI modified the SAC survey to explicitly link the questions to the ACOTE 2018 standards related to pediatric screening and to the Physical Therapy Essential Core Competencies for Entry-Level Pediatric Physical Therapy Education (Rapport et al., 2014). The modified survey was sent to expert pediatric academicians at two different universities for feedback, and the suggestions given were implemented prior to use of the SAC-PS in this study. The revised SAC-PS survey includes eleven Likert-scale questions asking students to rate their competency level for various pediatric skills related to the screening process. By summing the responses for all questions, a total score may be derived.

Pediatric Screening Experience Survey (PSE)

This electronic survey includes eight open-ended questions asking students to describe their pediatric screening experience in greater depth. This survey was self-created by the PI based on a similar piloted version. The tool gathered individual, qualitative information about the screening. The students completed this survey within one week following administration of the pediatric screening. See Appendix A.

Pediatric Screening Focus Group Semi-Structured Questions

Study participants were given the opportunity attend an optional, virtual pediatric screening focus group meeting hosted within two weeks of the final pediatric screenings. A set of fourteen semi-structured questions assessed students' perceptions of the lived experience of performing the pediatric screenings. See Appendix B. Two focus groups were held to create a more intimate environment.

Ages and Stages Questionnaire, 3rd Edition (ASQ-3)

Occupational therapy students used the Ages and Stages Questionnaire (ASQ-3) by Squires and Bricker (2009) to screen the children at both preschools. The ASQ-3 is a standardized developmental screening tool for children ages two through sixty-six months to assess communication, gross motor, fine motor, problem solving and personal social domains. The ASQ-3 demonstrates good reliability and validity (Beam et al., 2015; Lipkin & Macias, 2020). The PI prepared a set of screening material kits (toys, manipulatives, dress-up clothes) for both sites. Additionally, the PI provided the students with rubrics, sample letter templates and sample parent letters to help guide interpretation and documentation of results.

Procedure

Prior to the study, researchers received approval from participating sites and the university's Institutional Review Board. Students received instruction on ASQ administration, scoring, and recommendation plans for both delivery formats in the lifespan course. Students were assigned to the telehealth or face-to-face group and paired within their pod groups. Students completed pre-screening SAC-PS survey prior to administering the ASQ. Parents provided consent and ASQ overall information forms prior to their child's participation.

The second author served as an occupational therapist at the urban preschool and provided supervision of student administration of the telehealth developmental screenings. On the screening day, researchers provided the occupational therapy students with their assigned child participant. The occupational therapy students performed the virtual screening with the child with mentors presenting materials as directed by the students. In preparation, the students created visual materials to share on screen with the child. The occupational therapy students consulted with the children's teachers via email about items they were not able to observe. Mentors uploaded materials following the screening and debriefed with each student via Zoom.

The face-to-face occupational therapy students complied with COVID-19 procedures and were assigned a child upon arrival. The students were given time and space to prepare. The occupational therapy student pairs administered the ASQ-3 to their respective children under mentor supervision. The occupational therapy students consulted with the children's teachers about items they were not able to observe and debriefed with the mentors.

Within one week of the pediatric screenings, the occupational therapy students completed the post-pediatric screening surveys electronically. To address the competency of professional communication, occupational therapy students completed a follow-up letter to the child's parent which included a summary of the child's results, emerging skills to develop, further recommendations of general home activities to promote emerging skills and specific activity sheets for children who scored below cutoff along with recommendations for early childhood program contact information. All letters were reviewed for appropriateness and modified by the principal investigator, a licensed occupational therapist. Students were provided feedback prior to the letters being distributed. Additionally, within two weeks of post-screenings, the study authors moderated two, hour-long, optional focus groups on Zoom. The authors recorded and transcribed each focus group verbatim. Survey data was de-identified prior to analysis.

Data Analysis

For the quantitative analysis, authors used the Statistical Program for the Social Sciences, version 27 (IBM, 2020). A mixed Multivariate Analysis of Variance (Mixed MANOVA) analyzed the groups' SAC-PS survey scores from pre-post screening. The authors considered each item on the SAC-PS its own dependent variable as each question targeted a different competency area. A MANOVA is the most robust and appropriate test when examining multiple dependent variables (Portney & Watkins, 2015). Frequency analyses determined response frequencies.

Both researchers performed qualitative studies previously and were familiar with qualitative analysis techniques. The researchers performed thematic analysis to analyze the Pediatric Screening Experience Survey and the transcripts from the pediatric screening focus groups. For the PSE survey, each author performed individual open coding, microanalysis, and axial coding of the responses while generating audit trails until achieving redundancy and saturation. Researchers compared and consolidated themes from the PSE into overall combined themes. The researchers followed a similar process for the focus group transcripts to collaboratively determine themes. Narrative smoothing helped to derive similar themes from both the post-PSE surveys and focus groups. Triangulation occurred through member checking, field notes and integration of the results with quantitative data to increase the rigor of the study.

Results

Quantitative Findings

Results of the MANOVA revealed no statistically significant main effect or difference between administration groups on SAC-PS survey total scores, F (11, 49) = .661, p = .76, Π^2 = .17, indicating similar scores among those students who completed face to face screenings and those who completed telehealth screenings. Analysis revealed a statistically significant main effect for time, F(11,49) = 36, p<.001, Π^2 = .58. Scores were statistically significantly higher at post-screening (M =48.95, SD = 4.02) than at prescreening (M =43.58, SD =4.69). No statistically significant interaction effect existed between time and type of administration, F(11,49) = 1.89, P =.33, Π^2 =.27. Univariate tests revealed statistically significant improvements from pre-to post-pediatric screenings in ten of eleven questions on the SAC-PS (see Table 1).

Table 1
Self-Assessment of Competency - Pediatric Screening Survey Item Scores

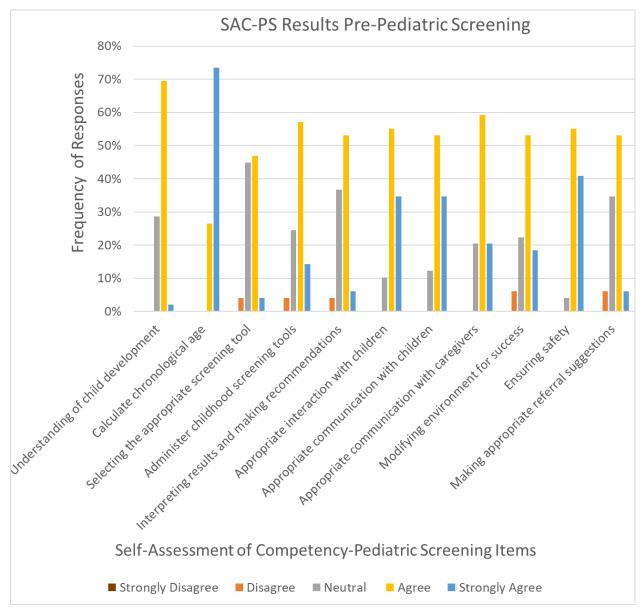
	Total Pre		Total Post		F-value P-value N2		<u>n2</u>	
Question	Mean	SD	Mean	SD	_			
1	3.71	0.54	4.21	0.50	23.00	<.001	0.33	
2	4.73	0.45	4.85	0.36	2.28	0.148	0.047	
3	3.81	0.73	4.29	0.71	14.78	<.001	0.24	
4	3.50	0.65	4.40	0.61	82.57	<.001	0.64	
5	3.63	0.67	4.29	0.50	34.33	<.001	0.43	
6	4.23	0.63	4.65	0.48	19.49	<.001	0.30	
7	4.23	0.66	4.50	0.58	8.40	0.006	0.15	
8	4.00	0.65	4.42	0.61	13.07	0.001	0.22	
9	3.83	0.81	4.40	0.61	16.33	<.001	0.26	
10	4.35	0.56	4.63	0.53	6.90	0.012	0.13	
11	3.56	0.68	4.33	0.56	36.49	<.001	0.58	

Note. All questions except for question 2 improved from pre-post at the p<.05 or more level.

Descriptive statistics reveal that the percentages of responses of each category changed as well. At post-screening, most students reported "agreeing" or "strongly agreeing" compared with pre-screening survey as depicted in Figures 1 and 2.

Figure 1

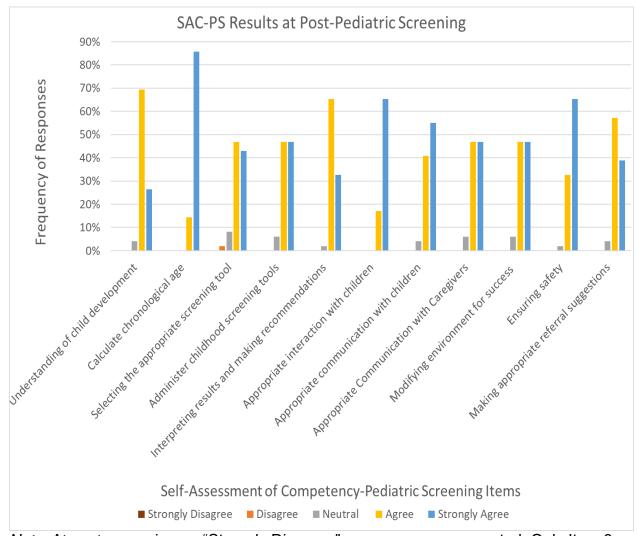
Pre-Self-Asssessment of Competency-Pediatric Screening (SAC-PS) Survey Results



Note. At Pre-Screening, no students responded, "Strongly Disagree." At pre-screening, responses of "Disagree," and "Neutral" were more prominent along with "Agree," and some "Strongly Agree," responses. Item 2, "Calculating Chronological Age (CA)" revealed many students agreed or strongly agreed to being competent. OT students had just received instruction and been assessed on CA calculation prior to screening.

Figure 2

Post-Self-Assessment of Competency- Pediatric Screening (SAC-PS) Survey Results



Note. At post-screening no "Strongly Disagree" responses were reported. Only Item 3, "Selecting the Appropriate screening tool," produced "Disagree" responses. More "Strongly Agree" responses were reported at post-screening than at pre-screening.

Qualitative Findings

Results of the qualitative analyses of the PSE surveys and the focus group meeting transcripts revealed seven overall themes with accompanying subthemes (see Table 2).

Table 2

Pediatric Screening Qualitative Themes and Sub-themes

	Subthemes	Quotes
Kids 101	 Engaging child through therapeutic use of self Difficult via telehealth Increased comfort and competence in pediatric screening skills 	understanding of how to administer an ASQ-3 and its purpose. I learned new things that will help develop my professional understanding when working with children."
Adaptation and Modification	 Altering presentation of and order of items Modifying the pace Modifying the environment 	"I learned the importance of being flexible and skipping some questions and coming back to them if the child isn't responding to the question right away."
Communication is Crucial	 Being directive with child Same page as partner Reporting results to parents is challenging 	"I need to work on how I phrase questions as well as limiting my gestures. I want to be better at taking a step back and allowing the child to showcase their true skills."
Feeling Supported	 Helpful working with partner Guidance from mentor is key Utilizing resources 	"I enjoyed working with another classmate because it helped to bounce ideas off of one another and showed me a new perspective on how to approach a situation."
Preparation	Preparation is different for Telehealth vs F2FPreparation helps	"Preparing for the screening and keeping the child engaged can make a big difference in how well they go through the screening."
Into the Unknown	 Not knowing what to expect Thinking on your feet Surviving the unknown builds confidence 	"What helped me learn was being thrown into a situation that I did not really know what to expect I had VERY little experience and confidence in myself prior to the screening, but I knew the ends and outs of the ASQ from studying. This really showed me the difference between education and clinical occupational therapy. I also felt like I learned what a collaborative interaction would be like."
Learning by Doing	 Working through challenges Safe environment to learn Good preparation for clinical practice 	"This screening helped me by reminding me that I do not have to be perfect or plan for everything to be successful. There are little hiccups and things you have to adapt for and plan around, but ultimately, we get it done and do a great job while we're at it."

Discussion

This study revealed that self-assessment of competency in pediatric screening skills improved similarly between occupational therapy students who performed telehealth versus face-to-face screenings which supports the findings of Cameron et al. (2019) and Cotton et al. (2017). This study added to the evidence investigating the difference between telehealth versus face-face pediatric student learning experiences. The qualitative analysis demonstrated that the preparation for the screenings occurred differently with the telehealth students spending a significant amount of time preparing virtual materials in advance, whereas the face-to-face students spent increased time modifying the environment right before and during the screening with the child. Both groups concurred that utilizing therapeutic use of self, being flexible and adaptable in the moment was necessary to keep the child engaged and facilitate more valid screening results.

The telehealth group reported similar challenges with technology and building rapport with the client as previous studies implementing telehealth technologies (Dunleavy et al., 2013; Hoel et al., 2021). The telehealth students mentioned having a mentor present who was familiar with the screening and the children along with a kit of necessary materials was crucial to their success. The face-to-face students agreed that having a mentor present and access to numerous resources enhanced their learning and eased the process of reporting the results to the parents and staff.

Students rated an increase in competency areas similar to those found by Chun et al. (2020) of professional communication, collaboration, and quality service delivery as indicated by the occupational therapy students reporting improvement of communication with parents, staff, and peers post-screening. The themes of "Working with Others" and "Kids 101" illustrated that students learned the value of working together with a partner, mentor, child, and staff as well as becoming more competent in administration, scoring, and interpreting a pediatric screening. Students stated that experiential learning element of this assignment was "hugely helpful" in preparing them for clinical practice and enhanced their clinical reasoning in a safe, supported "learn by doing" environment which supports previous literature regarding experiential learning and competency (Dahl-Popolizio et al., 2020; Knecht-Sabres, 2013).

Limitations

Study limitations included sampling, response, measurement, and intervention biases which may limit generalizability and transferability of the results. This study evaluated one cohort of Master of Occupational Therapy students from a private university in the Midwest. Students may have inflated responses on the quantitative and qualitative surveys since the surveys were required as a class assignment. The SAC-PS survey was not formally validated prior to use. Though this study did not employ an intervention, the way the telehealth screening was administered may have been different than a typical telehealth session. The second author worked as an occupational therapist at the facility where the screenings took place and was familiar with the children. Not all telehealth sessions will occur in settings where all necessary materials are available or with caregivers who are familiar with the assessment.

Perhaps this difference may have led to different student perceptions than performance of telehealth screenings without access to materials. Researchers employed methods to reduce limitations. A mixed methods design was utilized. Many forms of triangulation were performed including multiple sources of data (two focus groups, qualitative surveys), multiple investigators performing individual analysis before themes were compared and synthesized, audit trails, and member checking. These triangulation methods enhanced trustworthiness and credibility.

Implications for Future Research

Replication of this study with occupational therapy students from other universities and parts of the country is recommended. Employing a crossover design where all students perform both telehealth and face-to-face screenings and compare differences may be beneficial. Future studies should explore telehealth screenings with other age groups. Investigating the feasibility of performing standardized occupational therapy assessments via telehealth format is recommended. Future studies are suggested to formally validate the SAC-PS survey as it illustrated good responsiveness to change in this study. Future research should explore interprofessional roles within telehealth screening.

Implications for Occupational Therapy Education

This study revealed that occupational therapy students reported similar levels of competency regardless of screening administration format. Results indicated that the "actual doing" of the screening with real children led to improved competency and confidence. This pilot study produced many implications for occupational therapy education programs. Though this experiential activity was cumbersome to plan, coordinate, and grade, the students reported high levels of satisfaction with the activity to improve their competence and confidence when performing pediatric screenings. Both telehealth and face to face experiential learning activities were possible and beneficial to embed within this occupational therapy curriculum. Students largely attributed their success to the support they received from the materials and mentors. The added service-learning component requiring students to write a follow-up letter to parents and staff with emerging activities facilitated critical reasoning for students to connect the dots from screening administration to dissemination of the screening results. The focus groups and qualitative PSE survey fostered student reflection and vicarious "learning from others" experiences.

Conclusion

Evidence suggests that students who engage in experiential learning activities report increased self-competence. Results from this study verify that the students who actively performed a pediatric screening with children in either a face-to-face or telehealth format, reported feeling more confident about their knowledge, skills, and value for the occupational therapy profession. Although it is unknown what the future holds, this study illuminates the value of the telehealth platform opportunity to promote student self-competency.

References

- Accreditation of Occupational Therapy Education. (2018). 2018 Accreditation Council for Occupational Therapy Education (ACOTE®) Standards and Interpretive Guide. *American Journal of Occupational Therapy*, 72(Suppl. 2), 7212410005. https://doi.org/10.5014/ajot.2018.72S217
- American Occupational Therapy Association. (2018). Telehealth in occupational therapy. *American Journal of Occupational Therapy*,72(Suppl. 2), 7212410059. https://doi.org/10.5014/ajot.2018.72S219
- Beam, M., Paré, E., Schellenbach, C., Kaiser, A., & Murphy, M. (2015). Early developmental screening in high-risk communities: Implications for research and child welfare policy. *Advanced Generalist: Social Work Research Journal*, 1(3/4), 18-36. http://soar.wichita.edu/dspace/handle/10057/11282
- Beck, A. J., & Barnes, K. J. (2007) Reciprocal service-learning: Texas border Head Start and Master of Occupational Therapy Students. *Occupational Therapy in HealthCare*, 21 (1-2), 7-23. https://doi.org/10.1080/J003v21n01_02
- Cameron, A., McPhail, S., Hudson, K., Fleming, J., Lethlean, J., & Finch, E. (2019). Telepractice communication partner training for health professionals: A randomised trial. *Journal of Communication Disorders, 81* 105914. https://doi.org/10.1016/j.jcomdis.2019.105914
- Cole, B., Stredler-Brown, A., Cohill, B., Blaiser, K., Behl, D., & Ringwalt, S. (2016). The development of statewide policies and procedures to implement telehealth for part c service delivery. *International Journal of Telerehabilitation, 8*(3), 77-82. https://doi.org/10.5195/ijt.2016.6206
- Collier, A., Morgan, D.D., Swetenham, K., To, T.H.M., Currow, D.C., & Tieman, J.J. (2016). Implementation of a pilot telehealth programme in community palliative care: A qualitative study of clinicians' perspectives. *Palliative Medicine, 30* (4), 409-417. https://doi.org/10.1177/0269216315600113
- Cotton, Z., Russell, T., Johnston, V., & Legge, J. (2017). Training therapists to perform Pre-Employment Functional Assessments: A telerehabilitation approach. *Work (Reading, Mass.)*, 57(4), 475–482. https://doi.org/10.3233/WOR-172578
- Chun, I., Taff, S. D., Mehta, A., & Chang, C. (2020). Identifying essential competency areas for occupational therapy education: A scoping review. *Journal of Occupational Therapy Education*, 4(4). https://doi.org/10.26681/jote.2020.040402
- Dahl-Popolizio, S., Carpenter, H., Coronado, M., Popolizio, N. J., & Swanson, C. (2020). Telehealth for the provision of occupational therapy: Reflections on experiences during the COVID-19 pandemic. *International Journal of Telerehabilitation*, 12(2), 77–92. https://doi.org/10.5195/ijt.2020.6328
- Del Rossi, L., Kientz, M., Padden, M., McGinnis, P., & Pawlowska, M. (2017). A novel approach to pediatric education using interprofessional collaboration. *Journal of Physical Therapy Education*, 31(2), 119-130. https://doi.org/10.1097/00001416-201731020-00014
- Dunleavy, L., Preissner, K. L., & Finlayson, M. L. (2013). Facilitating a teleconference-delivered fatigue management program: Perspectives of occupational therapists: Offrir un programme de gestion de la fatigue sous forme de téléconférences: Perspectives des ergothérapeutes. *Canadian Journal of Occupational Therapy*, 80(5), 304–313. https://doi.org/10.1177/0008417413511787

- Gustaffson, L. (2020). Occupational therapy has gone online: What will remain beyond COVID-19? *Australian Journal of Occupational Therapy, 67*, 197-198. https://doi.org/10.1111/1440-1630.12672
- Hilyard, A., Kingsley, J., Sommerfield, D., Taylor, S., Bear, N., & Gibson, N. (2020). Feasibility of the randomized controlled trial of paediatric interdisciplinary pain management using home-based telehealth. *Journal of Pain Research*, 13, 897-908. https://doi.org/10.2147/JPR.S217022
- Hoel, V., von Zwek, C., Ledgerd, R., & World Federation of Occupational Therapists. (2021). The impact of Covid-19 for occupational therapy: Findings and recommendations of a global survey. *World Federation of Occupational Therapists Bulletin, 77*(2). https://doi.org/10.1080/14473828.2020.1855044
- Hung, G., & Fong, K.N.K. (2019). Effects of telerehabilitation in occupational therapy practice. *Hong Kong Journal of Occupational Therapy, 32*(1), 3-21. https://doi.org/10.1177/1569186119849119
- IBM Corp. Released 2020. IBM SPSS Statistics for Windows, Version 27.0. IBM Corp.
- Jacobs, K., Blanchard, B., & Baker, N. (2012). Telehealth and ergonomics: a pilot study. *Technology and Health Care, 20,* 445-458. https://doi/10.3233/THC-2012-0692
- Knecht-Sabres, L. J. (2013). Experiential learning in occupational therapy: Can it enhance readiness for clinical practice? *Journal of Experiential Education*, *36*(1), 22-36. http://dx.doi.org/10.1177/1053825913481584
- Lau, C. (2016). Impact of a child-based health promotion service-learning project on the growth of occupational therapy students. *American Journal of Occupational Therapy*, 70, 7005180030. https://dx.doi.org/10.5014/ajot.2016.021527
- Lipkin, P. H., & Macias, M. M. (2020). Promoting optimal development: identifying infants and young children with developmental disorders through developmental surveillance and screening. *Pediatrics*, *145*(1), e20193449. https://doi.org/10.1542/peds.2019-3449
- Little, L. M., & Wallisch, A. (2019). Telehealth in early intervention: A case example in the measurement of outcomes. SIS Quarterly Practice Connections, 4(2), 2–4.
- Phillips, E. A. (2017). Evaluation of a coaching experiential learning project on OT student abilities and perceptions. *Open Journal of Occupational Therapy*, *5*(1),9. https://doi.org/10.15453/2168-6408.1256
- Portney, L. G. & Watkins, M. P. (2015). Foundations of Clinical Research: Applications to Practice. (3rd Ed.). F.A. Davis. ISBN: 978-0803646575.
- Rortvedt, D., & Jacobs, K. (2019). Perspectives on the use of a telehealth service-delivery model as a component of school-based occupational therapy practice: Designing a user-experience. *Work*, *62*(1), 125-131. https://doi.org/10.3233/WOR-182847
- Ryan-Bloomer, K. S., & Decker, A. M. M. (2019, April). Interprofessional collaboration among OT and PT students during developmental screenings. In *American Occupational Therapy Association (AOTA) Conference*. AOTA.
- Shortridge A., Steinheider, B., Ciro C., Randall, K., Costner-Lark, A., & Loving, G. (2016). Simulating interprofessional geriatric patient care using telehealth:

 A team-based learning activity. *Journal of Teaching and Learning Resources, 12*, 10415. https://doi.org/10.15766/mep_2374-8265.10415

- St. John, M., Tong, B., Li, E., & Wilbur, K. (2020). Competency-based education frameworks across Canadian health professions and implications for multisource feedback. *Journal of Allied Health, 49* (1), e1-e11.
- Squires, J., & Bricker, D. (2009). *Ages & Stages Questionnaires®, Third Edition (ASQ®-3): A Parent-Completed Child Monitoring System*. Paul H. Brookes Publishing Co., Inc. https://doi.org/10.1037/t11523-000
- Verma, S., Paterson, M., & Medves, J. (2006). Core competencies for health care professionals: What medicine, nursing, occupational therapy, and physiotherapy share. *Journal of Allied Health*, *35*(2), 109–115.
- Verma, S., Broers, T., Paterson, M., Schroder, C., Medves, J.M., & Morrison, C. (2009). Core competencies: The next generation. Comparison of a common framework for multiple professions. *Journal of Allied Health*, *38*(1), 47–53.

Appendix A

Pediatric Screening Experience (PSE) Survey

- 1. List and describe the top 3 things about the pediatric screening which contributed to your learning.
- 2. Describe the most CHALLENGING component(s) of the pediatric screening.
- 3. Describe the most SURPRISING component(s) of the pediatric screening.
- 4. Describe SKILLS or COMPETENCIES enhanced by participating in the pediatric screening.
- 5. List something you learned from working with another classmate throughout the process of preparation, administration, and reporting results of the pediatric screening.
- 6. Discuss at least one way this experience will influence your future performance as a student and future health care practitioner.
- 7. Based on the administration method you used (telehealth or face to face), what pediatric screening competency skills would you consider to be areas of growth (or skills where you feel less competent).
- 8. (OPTIONAL) Please provide any feedback you would like the instructors to be aware of as they plan for this experience with future students.

Appendix B

Pediatric Focus Group Semi-Structured Interview Questions

- 1. Please share what you learned from this experience.
- 2. Please discuss what elements positively contributed to your performance during the pediatric screening.
- 3. Please discuss what elements were most challenging during the pediatric screening process.
- 4. What was most surprising to you during the pediatric screening process?
- 5. For those of you who performed the screenings via telehealth, tell us more about your experience. What went well, what didn't go as anticipated? What did you when things didn't go as anticipated?
- 6. For those of you who performed the screenings face to face, tell us more about your experience. What went well, what didn't go as anticipated? What did you when things didn't go as anticipated?
- 7. Tell us more about how this screening experience affected your competency skills for the pediatric screening process?
- 8. Tell us more about what areas of growth you still feel like you have in the areas of pediatric screening.
- 9. Tell us if you felt satisfied with your learning experience? Do you feel as if you received as equal of a learning experience as those who delivered the screening via a different medium (telehealth vs. face to face)?
- 10. What were the major advantages and disadvantages of the type of screening delivery you administered?
- 11. Tell us more about the follow-up letter writing process. What was beneficial? What was challenging?
- 12. Please provide us with feedback on how this assignment should look in future years. Should students perform one method of delivery versus another? Should they do both?
- 13. After reviewing the Self-Assessment of Competency survey, (Show the survey on the screen), please provide us feedback about what you like about the survey, what you don't like, what is missing.
- 14. Please share any other comments you have about this pediatric screening experience.

https://encompass.eku.edu/jote/vol6/iss1/8 DOI: 10.26681/jote.2022.060108