



Faculty Research

The Implementation of ViewPoint Simulations for Providing Virtual Interprofessional Education Training

This white paper provides a summary of the work from:

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Overview

Effective interprofessional practice is required in today's healthcare and school settings to provide holistic, patient- and family-centered care for individuals with disabilities. To learn how to work effectively on teams, preservice students need explicit interprofessional education training. Virtual simulation has been identified as a promising instructional approach for training preservice students to work effectively on interprofessional teams with students from other disciplines.

Purpose of the Research

The purpose of the current exploratory mixed methods study was to examine the impact of an experiential interprofessional education training program which included virtual simulations using [ViewPoint Simulations](#) technology on graduate speech-language pathology (SLP) and occupational therapy (OT) students' perceived interprofessional knowledge and skills as well as their actual interprofessional practice behaviors. We asked the following research questions to explore the impact of the experiential training program on the graduate SLP and OT students after its completion:

1. Do SLP and OT students perceive to have gained interprofessional knowledge and skills from participating in the program?
2. What Interprofessional Education Collaborative Core Competencies, if any, do students discuss at a greater level of depth?
3. What changes, if any, are present in students' interprofessional skills and behaviors in clinical practice?

4. At post-training, does the students' implementation of interprofessional skills and behaviors in clinical practice align with their discussion of the Interprofessional Education Collaborative Core Competencies?

Method

Sixteen graduate students from two training programs (Speech-Language Pathology and Occupational Therapy) participated in an experiential training program during the Spring 2024 semester. The training program consisted of one 2-hour in-person workshop and two virtual simulation-based learning experiences (SBLEs). The first SBLE taught students how to work on interprofessional teams to write collaborative goals for a fictional preschool client using guidance outlined in the Joint Statement on Interprofessional Collaborative Goals in School-Based Practice (American Occupational Therapy Association, American Physical Therapy Association, American Speech-Language Hearing Association, 2022). The second SBLE taught students how to design a collaborative intervention activity that could be implemented in a preschool classroom environment. SBLEs were each 1.5 hours in duration on Zoom, facilitated by SLP and OT faculty and doctoral student facilitators.

Findings and Discussion

We examined students' perceived interprofessional knowledge and skills, their ability to discuss the four core competencies of interprofessional practice, and their actual implementation of interprofessional skills and behaviors. By integrating findings from both quantitative and qualitative analyses, we determined three main findings related to the impact of the experiential training program: (a) students perceived to have gained interprofessional knowledge and skills; (b) students demonstrated significant gains in observed interprofessional skills and behaviors in their preschool clinical placement setting; and (c) students discussed all four Interprofessional Education Collaborative Core Competencies (2023) at a greater level of depth at post-training.

Students' perceived interprofessional knowledge and skills

The impact of the experiential training program on students' self-reported mastery of the IPEC Core Competencies was assessed using the 21-item Interprofessional Collaborative Competencies Attainment Scale-Revised. The ICCAS-Revised is a retrospective pre-post tool designed to self-report perceptions of changes in interprofessional skills and behaviors before and after an interprofessional education training experience. Students' self-rated interprofessional competencies significantly increased from pre-training to post-training with a large effect size.

Students' observed interprofessional skills and behaviors in their preschool clinical placement setting

Students were observed in their preschool clinical placement at the beginning and end of the semester using the Interprofessional Collaborator Assessment Rubric (ICAR), which is a valid and reliable competency-based assessment rubric used to assess healthcare students' and providers' interprofessional skills and behaviors in practice. All observations were conducted while the students were providing intervention services for a preschool client with a student from the other profession. Significant increases and large effect sizes were observed from pre- to post-training on ICAR total scores and domain scores (*Communication, Roles and Responsibilities, Team Functioning, Conflict Management, and Collaboration*).

Students' discussion of the Interprofessional Education Collaborative Core Competencies

While the learning objectives for this experiential training program were only related to three of the IPEC Core Competencies (*Communication, Teams and Teamwork, Roles and Responsibilities*), students demonstrated a greater level of depth in their focus group discussion responses related to all four competencies from pre-training to post-training. Table 1 includes the interprofessional skills and behaviors related to the Interprofessional Education Core Competencies that the students discussed at the end of the experiential training program. Illustrative quotes can be found in the full manuscript.

Table 1. *Topics in students' focus group discussions related to the Interprofessional Education Core Competencies at the end of the training program*

Interprofessional Education Core Competencies	Interprofessional Skills and Behaviors Discussed
Communication	Active listening behaviors (e.g., body language, facial expressions), awareness of discipline-specific jargon, giving and receiving feedback
Roles and Responsibilities	The overlap between the roles and responsibilities of SLPs and OTs, shared leadership, awareness and knowledge of other discipline's roles for making referrals
Teams and Teamwork	Writing collaborative goals with other professionals, building rapport with other professionals on personal and professional levels, sharing resources with other professionals
Values and Ethics	Trusting other professionals and their expertise, positive relationships, respectful work environment

Students' growth across all four competencies further suggests the effectiveness of virtual simulation for interprofessional education opportunities.

Conclusions

Findings suggest that graduate SLP and OT students who participated in this experiential training program demonstrated gains in their self-perceptions of their interprofessional knowledge and skills as well as their actual implementation of interprofessional skills in a clinical setting. Students were able to discuss the Interprofessional Education Core Competencies in greater depth after participating in the program. This study provides initial data to support the use of virtual simulations using ViewPoint Simulations technology to provide interprofessional education training experiences to supplement students' in-person collaboration opportunities specific to educational settings. Faculty designing and facilitating interprofessional education training for their students should consider using virtual experiences to overcome common barriers of space limitations and scheduling conflicts across academic programs.

References

American Occupational Therapy Association, American Physical Therapy Association, American Speech-Language Hearing Association. (2022). *Joint statement on interprofessional collaborative goals in school-based practice*. Retrieved from <https://www.asha.org/practice/ipe-ipp/how-to/writing-collaborative-goals-for-ieps/>

Interprofessional Education Collaborative (IPEC). (2023). IPEC core competencies for interprofessional collaborative practice: Version 3. *Washington, DC: Interprofessional Education Collaborative.*