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Original Interprofessional Simulations to Train Students in CSD and Related Health Professions in Team-Based Health Care

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Abstract

Students in health professions receive extensive training across the scope of practice within their profession; however, most lack experience in performing clinical functions as a member of a coordinated health care team. We describe outcomes of a quasi-experimental study that used simulations to target interprofessional practice competencies. Simulations incorporated clinical knowledge from five professions, and used standardized patients to provide students with a low-stakes opportunity to apply knowledge and skills. Students observed one simulation and participated in another. Post-simulation quantitative and qualitative data were collected by having students, faculty, and standardized patients rate collaboration and decision-making skills for each interprofessional team. Results indicate differences in ratings based on simulation round and rater group. Findings highlight the need for focused training in the use of clear and empathic communication by interprofessional teams. Results also demonstrate the value of feedback from standardized patients who can provide important perspectives regarding the quality of clinical interactions.

Keywords

developmental, interprofessional education, delays/disorders, audiology, nursing, optometry, public health, speech-language pathology

Introduction

Educators and practitioners across health-related disciplines are increasingly recognizing the importance of interprofessional education (IPE) and interprofessional practice (IPP) in student training and clinical care. IPE occurs when members of more than one profession learn about, with, or from each other for the purpose of improving the health or wellbeing of clients or patients (World Health Organization [WHO], 2010). Effective collaboration among professionals helps address the "triple aim" of reducing per capita health care costs, improving population health, and increasing patients' perceived quality of care and overall satisfaction (Institute for Healthcare Improvement, 2011). Integrating services and enhancing communication among related professions help limit the occurrence of medical errors, reduce the burden on patients and their families, and lead to better health and educational outcomes (Campbell et al., 2001; Mukamel et al., 2006; WHO, 2010). Educational and clinical experiences related to IPE are also being incorporated into accreditation requirements across most health professions (Health Professions Accreditors Collaborative, 2019); thus, opportunities for students to acquire these competencies are emerging as an immediate necessity.

IPE Challenges

Despite well-known benefits of collaborative health care models, students training in health-related professions generally receive little practical experience in working as part of a health care team. Widening scopes of practice make it a challenge to provide students with comprehensive training

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even within their profession, and most didactic and clinical experiences focus on discipline-specific training. Many clinicians who supervise students do not provide team-based services themselves, and therefore cannot provide such experiences to students they train. Thus, a lack of real-world experience in interprofessional collaborative practice poses a serious barrier to IPE/IPP.

A related IPE challenge, often an outgrowth of discipline-specific training, is difficulty relating and communicating clearly to other professionals and to nonprofessional members of the health care team (patients and their family members). In developing expertise in domain-specific abilities, students tend to become biased in their approaches to problem-solving and in their broader communication patterns. This tendency to view situations and communicate with others from the narrow perspective of one's own profession is sometimes referred to by the French term *déformation professionnelle* (e.g., Bouquet et al., 2018) and can interfere significantly with team interactions and clinical decision-making. Excessive use of professional jargon is one common example of *déformation professionnelle*. Another occurs when practitioners fail to integrate contributions from related professions when forming diagnostic conclusions and developing intervention plans. Such biases in clinical care can lead to communication breakdown, increased medical errors and added stress for practitioners, patients, and caregivers (Giroux et al., 2019; Johnson et al., 2018). As emphasized by Soubhi (2017), communication is central to effective interprofessional care and helps ensure a unified and cost-effective approach to patient care, rather than one that is overly specialized and fragmented. Available evidence suggests that IPE/IPP training experiences can improve communication among health care providers (Reeves et al., 2010); however, most available studies focus on skills attained by individual providers rather than team performance (e.g., Brown et al., 1999; Helitzer et al., 2011). Most studies also do not consider caregivers' perceptions of their interactions with the health care team.

Clinical Simulations and Standardized Patients

Clinical simulations target experiential learning through representations of realistic clinical scenarios. Although widely used in medicine and nursing (Howley et al., 2008; Nye et al., 2019), this form of pedagogy is less common in other health-related professional programs such as speech-language pathology (SLP) and audiology (Jansen, 2015). Much available evidence supports the benefits of simulations in clinical training (e.g., Bradley, 2006; Jansen, 2015). Simulations provide a low-stakes opportunity for students to practice applying knowledge and skills, and to develop confidence before interacting with real patients. When engaging in simulations, students can make mistakes, question their decisions, take risks, and assess outcomes of their actions without sacrificing patient safety or quality of care. In this way, simulations can be an important way of supporting adult learning and addressing student anxiety, particularly as students transition from didactic to clinical learning experiences (Kameg et al., 2014; Sarikaya et al., 2006). Although simulations can be designed using a variety of formats, such as low- and high-fidelity mannequins, virtual patients, and role-playing, this study focused on simulations with standardized patients (SPs).

SPs are trained actors who portray an individual affected by a health care condition. SPs are able to represent a variety of clinical scenarios and disorders with high levels of accuracy and authenticity (e.g., Baylor et al., 2017), and provide opportunities for students to practice skills related to interpersonal communication and cultural sensitivity as well as clinical procedures (MacLean et al., 2017; May et al., 2009; Zraick et al., 2003). As part of their training, SPs receive background on physical characteristics of the disorder or condition being portrayed, in addition to relevant social, emotional, and demographic details. They are also briefed regarding information to be provided or to withhold in the clinical interaction. Research on SP simulations indicates that SPs are able to perform with remarkable consistency and show high inter-rater agreement, ensuring equivalent training and/or assessment experiences for the students that participate (Colliver et al., 1998). Key benefits reported as a result of learning experiences that use SPs in clinical training include improved communication skills, gains in knowledge and clinical skills, increased confidence, and reduced anxiety in clinical settings (MacLean et al., 2017; May et al., 2009; Zraick et al., 2003).

Clinical Simulations in IPE Training

A growing number of studies describe implementation of simulations involving interprofessional teams. Many of these reports focus on collaboration and decision-making skills of specialized health-related professionals in focused clinical scenarios such as agitation management in emergency care (Wong et al., 2018), palliative care (Saylor et al., 2016), stroke management (Karpa et al., 2018), or assessment of sexual assault (Lee et al., 2019). Several studies include students in communication sciences; however, most of these involve medically oriented scenarios such as dysphagia assessments or speaking valve placement for a tracheotomized patient (Estis et al., 2015; Noureddine et al., 2016; Potter & Allen, 2013). Simulations involving developmental disorders are relatively rare and the use of SPs for portraying a caregiver's (rather than patient's) role is uncommon, although some available publications utilized SPs in this way (Dotger et al., 2008; Estis et al., 2015; Marken et al., 2010). The SP simulation described in this study included students in SLP, audiology, optometry, nursing, and public health interacting with SPs who portrayed

caregivers of children with developmental concerns relevant to each of the participating professions. To our knowledge, there are no published interprofessional simulations involving this diverse set of disciplines, despite the important and interrelated roles these professionals play in interventions for children with developmental delays.

Study Overview and Aims

The interprofessional simulations described below were implemented as part of a pilot course in IPE/IPP. The course was funded by a university grant designed to promote interdisciplinary collaborations. Clinical scenarios were jointly developed by a group of faculty members representing graduate-level programs in health-related professions (audiology, SLP, nursing, optometry, and public health), and a professional actor with expertise in SP training and clinical simulations. Our primary goal was to evaluate the usefulness of SPs for providing training in team-based skills related to interpersonal communication and clinical decision making.

Method

Participants and Setting

A total of 15 graduate students from five disciplines (SLP, audiology, nursing, public health, and optometry) participated in the simulation. Efforts were made to recruit four students per discipline; however, fewer students participated from nursing (2), SLP (2), and public health (3) due to scheduling constraints. All but the optometry program are departments within the University of Memphis (UM); the Southern College of Optometry is a single-purpose institution located approximately 5 miles from the UM main campus. Despite considerable overlap in areas of expertise and populations served by the participating programs, students do not have regular opportunities for interactions in the classroom or in their clinical training. Students were recruited for the IPE/IPP course via flyers distributed to each of the five programs and were able to participate in the course with or without registering for course credit. All student participants had completed at least 1 year of graduate training and provided informed consent. Study procedures were reviewed and approved by the UM Institutional Review Board. Five faculty members, one representing each participating discipline, jointly developed the case studies used for the simulation script and participated in assessment and debriefing activities related to the simulation.

Procedures

Clinical details related to the case studies were converted into a simulation script by the fourth author (C.S.). C.S. is a professional actor with expertise in training actors to play SP roles and developing and executing simulation activities. Two experienced SPs participated in the simulations, and in both cases, took on the role of a child's primary caregiver. One SP played the role of a child's mother when the child was 2 years old and the second SP played the role of the child's grandmother when the child was 8 years old.

Simulation background. Participating programs and faculty were involved in ongoing efforts related to IPE/IPP and had previously demonstrated an interest in developing interprofessional opportunities for students and local practitioners. A primary objective of the pilot course and the clinical simulation was to highlight skills related to interpersonal communication and teamwork in health care services. The full course spanned a six-week period and included introductory online components, followed by a series of in-person activities that were scheduled over two half-days at semester's end. Some of the online course components consisted of assigned readings and discussions related to the case studies portrayed in the simulations to help engage students in cross-discipline dialogue and prepare them for the simulation experience.

Case studies. Our team of faculty and community partners collaboratively developed two related pediatric case studies representing the same child at 2 and 8 years of age. Full details for Case Study I (age of 2 years) and Case Study II (age of 8 years) are available as Supplementary Materials B and C, respectively. The cases were intentionally designed to highlight concerns that were clinical in nature as well as concerns related to population health. Briefly, the child in the simulation (MT) was the product of a premature birth for a single mother with limited education and low income. The clinical visit at the age of 2 was portrayed as a standard follow-up for babies at risk of developmental delays due to prematurity. Subtle concerns were present (e.g., small spoken vocabulary, no word combinations, frustration during communication attempts, aversion to food textures, limited attention to small toys on floor, poor participation in audiological testing), but were not apparent to the mother (portrayed by SP 1). In the other simulation involving the same child at the age of 8 years, earlier concerns had evolved into more noticeable difficulties related to reading and learning that were observed by the child's grandmother (represented by second SP), who had become the child's primary caregiver after his mother died in a car accident. Prior to the simulation, student teams reviewed the literature that provided key background information from each discipline, including a review study of cerebral visual impairment associated with prematurity (Dutton, 2013), an electrophysiological study of auditory processing patterns in school-age children born prematurely (Gomot et al., 2007), and a study examining combined effects of prematurity and poverty on children's language outcomes (Lean et al., 2018). They reviewed an additional paper describing the importance

of caregiver–child interactions for premature infants (Keilty & Freund, 2005) and a book section outlining a brief assessment form for evaluating real-life consequences associated with poverty (Wilson, 2017, pp. 140–145).

Simulation structure. The interprofessional simulation was the final face-to-face activity in the IPE course and both simulations took place on the same day. Students were organized into four interprofessional teams, with each team including representatives from most (3 or 4) participating professions. The two case simulations (child at age of 2 and 8 years) ran simultaneously and two rounds of simulation were completed, allowing each team to observe one case simulation and participate in another. Five faculty members facilitated the activity, along with the SP consultant (CS) who led the pre-briefing and post-simulation debriefing. The components and time course of each simulation round are outlined in Supplementary Materials A. No team observed and participated in the same simulation. Both simulations took place in designated rooms designed to resemble a pediatric clinic, with children's books, toys, and related artifacts. Each room had a two-way mirror to allow for observation by students and faculty. The simulation was structured as a diagnostic interview and consisted of introductions, questions, and discussions with the caregiver for 35 min. The broad objective for each team was to establish trust and rapport with the caregiver and to gain an understanding of the child's and family's needs. Guidelines provided to students specified that their task was to (a) ask questions to clarify or confirm key hypotheses based on potential risks identified in readings; (b) plan how to effectively interact with the caregiver as a team and think about how these interactions compared with traditional consultations with individual professionals; and (c) explain the assessment and treatment plan to the caregiver, using active listening techniques. After the first set of teams (Teams 1 and 3) interacted with the SP, the teams self-rated their performance (see below for details). Team performance was additionally rated by students observing the simulation (initially, Teams 2 and 4), faculty, and both SPs. A 15-min immediate debriefing followed, in which participants and observers of each simulation shared observations related to the experience, noted strengths of the team, and identified opportunities for improvement. Round 2 simulations were identical to the first, but with student observers and participants reversed, so that Teams 2 and 4 interacted with SPs, and Teams 1 and 3 observed. Upon completion of both rounds of simulation, the entire group gathered for a general debriefing (1.5 hr) to discuss questions, challenges, and lessons learned.

Outcome Measures

Measures of team collaboration were obtained via the Collaboration and Satisfaction About Care Decisions (CSACD) survey, a scale originally developed to measure critical attributes of coordination and decision making in health care providers working in intensive care units (Baggs, 1994). The instrument is intentionally brief (nine items) to allow for measures to be taken from multiple team members during delivery of care. It consists of seven items related to collaboration and two items related to satisfaction with the decision-making process. All items are scored on a Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale shows high internal consistency for items related to collaboration (Cronbach's $\alpha = .93$) and clear association between the two items related to satisfaction ($r = .64$; Baggs, 1994). In addition to Likert-type scores, we asked respondents to provide examples from the simulation to support their rating whenever possible. These free-form responses provided additional qualitative data to supplement quantitative results.

Given the small sample size, outcomes are reported as score medians and ranges for CSACD items. Data were analyzed using nonparametric tests, including Wilcoxon rank-sum tests and Kruskal–Wallis tests, as appropriate. Free-form responses (e.g., to support numeric responses) were also examined to expand upon certain patterns observed on the CSACD.

Results

Quantitative Analyses

Simulation rounds. Descriptive data and results of Wilcoxon rank-sums tests for CSACD ratings after the two rounds of simulation (with each round including data for the age of 2 and 8 years simulation) are summarized in Table 1. Ratings were high overall with a tendency toward higher scores after the Round 2 simulation relative to Round 1. These differences reached significance for the item related to collaboration ("How much collaboration among team members occurred in making the decision for this patient?"), $p = .026$. Ratings did not differ significantly for remaining CSACD items.

Rater comparisons. Next, we compared CSACD ratings made across both simulation rounds by different rater types: student observer, student participant, SP, and faculty. Descriptive data and results of Kruskal–Wallis tests are summarized in Table 2. Results indicated a significant effect of rater role for two CSACD items: Communication ("Open communication among team members took place as the decision was made for this patient"), $p = .027$; and Shared Responsibility ("Decision-making responsibilities for this patient were shared among team members"), $p = .044$. For both items, visual inspection of data indicated that SP and faculty ratings were lower than student ratings. Remaining CSACD items did not significantly differ between rater types.

Table 1. Descriptive Data and Wilcoxon Ranks Sum Test Results for CSACD Ratings by Round.

	Round 1 ($n = 15$)		Round 2 ($n = 15$)		
Variable	Median	Range	Median	Range	p value
Planning	5.00	[3, 7]	6.00	[4, 7]	.125
Communication	7.00	[3, 7]	6.00	[4, 7]	.676
Shared responsibility	6.00	[4, 7]	6.00	[4, 7]	.795
Cooperation	7.00	[4, 7]	7.00	[4, 7]	.982
Concerns considered	7.00	[5, 7]	7.00	[4, 7]	.864
Coordination	6.00	[5, 7]	7.00	[5, 7]	.266
Collaboration	6.00	[4, 7]	7.00	[4, 7]	.026*
Satisfaction with process	6.00	[3, 7]	6.00	[4, 7]	.508
Satisfaction with decision	6.00	[1, 7]	7.00	[4, 7]	.895

Note. CSACD = Collaboration and Satisfaction About Care Decisions.
*$p < .05$.

Table 2. Descriptive Data and Kruskal–Wallis Test Results for CSACD Ratings by Rater Role.

Variable	Faculty median ($n = 6$)	SP median ($n = 3$)	Student-O median ($n = 14$)	Student-P median ($n = 7$)	p value
Planning	5.00	6.00	6.00	6.00	.631
Communication	5.00	5.00	7.00	7.00	.027*
Shared Responsibility	6.00	5.00	6.00	6.00	.044*
Cooperation	6.00	6.00	7.00	7.00	.075
Concerns considered	6.50	7.00	7.00	6.00	.422
Coordination	6.00	6.00	6.50	7.00	.255
Collaboration	6.00	5.00	7.00	7.00	.155
Satisfaction with process	5.50	6.00	6.00	6.00	.232
Satisfaction with decision	6.00	7.00	7.00	6.00	.621

Note. CSACD = Collaboration and Satisfaction About Care Decisions; SP = standardized patient; Student-O = student observers; Student-P = student participants.
*$p < .05$.

Qualitative Analyses

We also reviewed open-ended comments on the CSACD, in which survey respondents provided examples to support their ratings of the team participating in the simulation. Responses indicated that student observers in both rounds appreciated important aspects of team performance in the simulation they observed. Strengths noted included good "flow of communication" among team members, without team members having to "fight for a chance to express themselves." Others commented that the team reviewed the patient's concerns in depth, "asked open-ended questions," "took turns discussing recommendations," and "clearly defined their individual roles." Despite many positive observations, several students viewing the simulation pointed out that the teams did not have a plan in place before the interaction but seemed to develop it as they went along and "started making decisions before they had the whole picture." One student also commented that the team "did not quite address the need for follow-up appointments" and that "more education" for the caregiver would have been helpful. Several students further noted that one team member "took over the main part of the discussion" and "was given a higher status" than other members.

Responses from students participating in the simulation were generally focused on positive observations. They noted "good communication," and consistent "turn-taking" among their team members. The only potential areas of weakness that were noted included some confusion about the primary concerns of the caregiver and how to best respond to the caregiver's perceived lack of interest in the clinical visit. One student also commented that s/he felt "overwhelmed knowing that there were so many people observing."

Faculty and SP responses reinforced some of the previously noted comments regarding turn-taking, collaboration, and respectful dialogue among team members. Some highlighted students' attempts to address social determinants of health such as the caregivers' transportation challenges. SPs further noted that "everyone was engaged" and "all were

concerned about my child." Areas of weakness noted by faculty included failure to clarify the purpose of the visit and to convey a clear follow-up plan to the caregiver. One faculty member pointed out the "need for more post-simulation discussion among group members to allow dedicated time for decision making." An SP indicated that students "asked a lot of questions but didn't talk to each other" and that she did not feel clear decisions were made.

Discussion

Overall, our results demonstrate the utility of interprofessional simulations with SPs in the clinical training of professional students, particularly in skills related to communication and collaboration among team members. Individual ratings on the CSACD scale indicated certain areas of statistically significant improvement on the second simulation compared with the first and lower ratings by faculty and SPs relative to student observers and participants.

Clinical and Educational Implications

Simulations facilitate learning. Improved CSACD ratings after Round 2 relative to Round 1, combined with students' open-ended comments, suggested that students engaged in active learning and were able to identify areas of strength and weakness to consider in future interaction with caregivers. Students showed respect for each other and for the caregiver, allowed time for each team member to speak, and included explanations of their unique professional roles. These findings suggest that communication challenges in IPE and IPP, such as *déformation professionnelle* (e.g., Bouquet et al., 2018), might be minimized by drawing and building upon basic communication strengths shown by professional students early in their training. Students also appeared sensitive to instances of one team member taking the lead and to the need for further collaboration among team members to develop and convey a clear plan of action to the caregiver. It is possible that observing other students, in itself, provided a valuable learning experience that helped boost performance in Round 2 of the simulation. The focused debriefing between students, faculty, and SP immediately following each round likely also contributed to greater awareness of high and low points of the simulation and highlighted areas for improvement.

Value of SP perspective. The generally higher ratings from students relative to those from faculty and SPs suggest that students may not have a well-developed awareness of what IPE skills are and how to best evaluate them. SPs provided important perspective during the focused and general debriefing sessions as they were able to share personal reactions and impressions of the interactions in a way that most closely reflects how these might be experienced by real-life caregivers. In this way, their insights may be viewed as more authentic than those of faculty, who may have expertise in the relevant clinical areas but are viewing and rating the interaction from a more indirect vantage point. The most consistent feedback relayed by both SPs was a perceived lack of empathy and a general emphasis on clinical questions and procedures. SPs also felt that although team members were respectful and engaged with them, they did not collaborate enough with each other during or after the interaction to coordinate a clear plan of care. Like previous studies using SPs, our results indicate that SPs may be a critical resource for evaluating and strengthening students' communication skills. Evidence from several reports suggest that SPs assess target clinical and communication behaviors with strong inter-rater reliability (Shirazi et al., 2014), and may be even more reliable than extensively trained non-SP observers (Dickter et al., 2015). SP input is also unaffected by potential biases of faculty whose assessments may be influenced by their previous knowledge and perceptions of the student participants (Brinkman et al., 2006). As noted by others (MacLean et al., 2017), faculty involved in developing simulation experiences should consider expanded use of SPs not only to portray patients or caregivers, but also to evaluate student performance. Available evidence suggests that students perceive SP feedback to be invaluable to their learning and are able to integrate this input effectively with their self-evaluations (Becker et al., 2006).

Limitations

Given the preliminary nature of this project, our study consisted of a relatively small group of students and focused on performance measures collected from participants after each simulation. Future research would benefit from more rigorous experimental designs that include both pre- and post-simulation measures, use of a control group, randomization procedures, and a larger sample size. Additional training could also help faculty observers and SPs calibrate their ratings of team performance and strengthen the reliability of measures obtained.

Challenges and lessons learned. Despite evidence of student learning, participating faculty noted several challenges in the process of developing and executing the interprofessional simulations. First, although faculty from the nursing program had previous experience with simulations and SPs, all remaining programs did not, and none of the faculty had previously designed or run an interprofessional simulation. Smooth execution of the simulations involved determining scheduling logistics, constructing well-designed SP scripts, preparing realistic simulation settings, and ensuring student preparedness. These details were time consuming and placed a heavy load on faculty who were all juggling

multiple other research-, teaching-, and service-related responsibilities. As noted by others (Marken et al., 2010), cost and sustainability of the project was another important challenge. Our pilot project was funded by an internal grant supporting interprofessional collaborations; however, reliable sources of funding are needed to sustain this form of interprofessional training for future students. We also capped our pilot course at four students per program, but ultimately need realistic ways of opening these interprofessional experiences to all students.

Faculty also identified several ways in which the simulation activity and outcomes could be improved. In particular, we felt the students would benefit from more structured pre-briefing sessions that clarified expectations, anticipated outcomes, and target skills. Pre-briefing could also include opportunities for explicit modeling and practice of key interpersonal and communication skills, potentially using checklists, as described by Zraick and his colleagues (2003). Team performance may also have benefited from scheduled meeting times prior to and after the simulation to focus on developing a plan for interviewing the caregiver, sharing information with other professionals to establish a consensus, and formulating a plan of care at the conclusion of the interview. Building these sessions into the simulation might have encouraged more intentional integration of concerns and recommendations from individual team members rather than expecting these to merge "on the fly."

Future Directions

Future research related to interprofessional simulations could explore the potential use of video-recorded simulations as the basis for focused pre- or post-simulation discussions. Simulation rooms are generally designed to accommodate session recordings. In our case, we had high-quality video recording equipment in the simulation rooms and prepared recordings of each team that participated in the activity. Such content does not require additional costs, can be made accessible in digital form online, and could be a practical and sustainable way of implementing or enhancing future IPE/IPP training. Focused clips highlighting opportunities for empathic responses may be an effective way of providing training on this critical interpersonal quality. Some evidence suggests that virtual patients (VPs) provide even more effective training in empathy than SPs (Kleinsmith et al., 2015). Use of VPs in IPE contexts is limited; however, there are several available suggestions for expanding available VP tools for interprofessional groups (McCarthy & DiGiovanni, 2017). Although less authentic than interactions with SPs, VPs provide a low-pressure opportunity to practice formulating responses and may allow student teams more time to discuss and reflect on their responses. However, VP interactions are unimodal (text-based) and eliminate opportunities for conveying empathy via nonverbal means such as gesture, tone, facial expression, and body language. Perhaps IPE/IPP experiences could incorporate virtual patients as a form of scaffolding early in students' training, followed by SP simulations later. Future research may also benefit from consideration of other assessment measures that focus more on the quality of students' interactions (e.g., Peters, 2019) or use of empathic communication (Kleinsmith et al., 2015). Use of a structured checklist to target interpersonal skills more explicitly (e.g., Zraick et al., 2003) may also be helpful.

Conclusion

In conclusion, we found the interprofessional simulation to be an effective and meaningful learning experience for students and faculty alike. Our observations and student feedback on the activity highlighted the need for more simulation-based training across health-related professions. This may be especially true for fields such as communication sciences and disorders, optometry, and public health, who generally have less experience with simulations and SPs relative to nursing and medicine; however, the critical need for more interprofessional simulation experiences is shared across professions. As a pilot project, our results are encouraging in demonstrating the usefulness of team-based simulation experiences for practicing interpersonal skills that are essential to our relationships with clients, their families and significant others, and other members of the health care team.

Declaration of Conflicting Interests

The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article: N.E., D.M., J.E.H., and M.L. are full-time faculty members at the University of Memphis.

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Supplemental Material

Supplemental material for this article is available online.

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