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Norman Belleza

Maureen Johnson

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# Beyond Simulation: Effectiveness of an Interprofessional Education Model Featuring Escape Rooms, Chart Review, and Animated Lecture on Student Core Competencies

Norman C. Belleza PT, DPT, & Maureen Johnson, PhD, MS, OT/L

## Introduction

Interprofessional education (IPE) is noted as best-practice criteria in the accreditation of rehabilitation science programs and can be one way to address modern healthcare shortfalls. IPE has been noted to elicit better-quality behaviors among team players and promote improved patient safety and outcomes. The purpose of this pilot study was to examine the effects of a multi-method teaching IPE model on occupational therapy (OT) and physical therapy (PT) students' self-assessment of interprofessional education collaborative (IPEC) core competencies. The IPE model included novel learning activities such as an escape room experience, simulated medical chart review, and two different simulations.



#### Methods

First-term OT and PT graduate students participated in the Belleza-Johnson IPE Model during a 15-week interprofessional course. Specific learning activities were purposefully designed to correspond with a specific IPEC core competency practice domain. The educational model features scaffolded learning activities that build upon each other starting with a Scavenger Hunt and Escape Room Experience and followed by a Medical Chart Review and Animated Lecture, and Simulation 1 with Debriefing, and Simulation 2 with Debriefing.

Pre- and post-participation data was collected at the start and end of the course through archived assignments. Assignment scores using a tool for student self-assessment were compared before and after the IPE course. Statistical analysis was done with SPSS 26.

Table 2. Comparison of Pretest and Posttest Scores				
Variable	Pre-test	Post-test	Mean Increase (SD)	Significance (paired <i>t-</i> test)
Total Results	4.09	4.58	0.54 (SD=0.30)	p <0.0001
Factor 1: Interaction Domains	3.67	4.47	0.80 (SD=0.41)	p <0.0001
Factor 2: Value Domains	4.48	4.77	0.29 (SD=0.31)	p <0.0001

#### Results

After completing learning activities in the Belleza-Johnson IPE model, a statistically significant change was noted in pre-post archived data analysis of the IPEC Self-Assessment Tool. A paired t-test demonstrated mean increased scores from the pre-test and post-test total scores of 0.54 (SD = 0.3), Interactions Domain scores of 0.80 (SD=0.41), and Values Domain scores of 0.29 (SD=0.31) with all having statistical significance (p < 0.0001).





#### Conclusions

This interprofessional education model directly linked learning activities with specific IPEC core competency domains. The literature supports the data from this study and reinforces the need to advance the area of simulation research to foster collaboration, learning, and IPE among healthcare students. Improved student knowledge and attitudes towards IPEC lays the foundation of meeting the need for preparing a practice-ready collaborative healthcare workforce. As a result of this study, students moved forward in the curriculum having a foundation of interprofessional collaborative practice and competencies better preparing them to be practice-ready clinicians. Future research is needed with longitudinal studies to support the use of IPE throughout health science curriculum including involvement of other healthcare students. In addition, further examination of the relationship between confidence in interprofessional practice competence and demonstrated competence during internship or fieldwork settings is recommended.

### <u>Disclosures and References</u>

We have no disclosures. References available upon request by contacting <a href="mailto:nbelleza@usa.edu">nbelleza@usa.edu</a> or <a href="mailto:mjohnson@usa.edu">mjohnson@usa.edu</a>.