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Simulation Stimulation: Simulation Characteristics Enhancing Physician Assistant Knowledge and Confidence

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Abstract

Introduction. Simulation is a rapidly growing learning activity in physician assistant (PA) programs and has demonstrated a significant impact on students' clinical proficiency, confidence, and interprofessionalism. This research seeks to identify the determinants of PA students' self-assessment of their confidence and knowledge after simulation training to inform the optimization of simulation training and best prepare PA students for clerkships and practice.

Methods. A records review was performed of 107 surveys with Likert data and 205 with comment data collected from first-year PA students immediately following 18 iterations of simulation training over three years. The significance of session and instructor characteristics in contributing to the students' self-assessed confidence and medical knowledge changes were identified by ordinal regression. Thematic analysis of comments was performed to explain the quantitative data.

Results. Realism, clear objectives, and instructor characteristics of helpful feedback demonstrating enthusiasm, stimulating problem-solving, and respect for students were determinants of confidence with an R squared of .704 (P < .05). Realism, clear objectives, and the instructor characteristic of an effective communicator were determinants of knowledge with an R squared of .719 (P < .05). Thematic analysis found students valued small groups, realism, clear expectations, and familiarization with simulators. Conclusions. This study sought to determine factors that determine students' self-assessment of confidence and knowledge after participating in clinical simulation activities. The results identified several factors as significant