The Manikin Challenge: manikin-based simulation in the psychiatry clerkship

Psychiatry is a nuanced specialty that relies on body language and subtle nonverbal cues from patients. As such, when using simulation to teach medical students, standardized patients are considered the gold standard. Standardized patients are actors who are trained to simulate certain conditions or scenarios. They can be trained to reproduce the subtle nonverbal cues that are so important to psychiatry. Manikin-based simulation typically utilizes a manikin to reproduce certain physical exam findings, physiologic conditions, or to allow procedures to be performed. Manikins are very common in medical school education but generally not utilized in psychiatry. The primary aim of the research study was to compare the educational utility of these two different simulation teaching modalities on various aspects of learning. The idea being that since most medical schools already have a manikin, it would be cost-effective and easy to adopt it for psychiatry education, if proven useful.

At the Yale School of Medicine, as part of the psychiatry end-of-clerkship teaching module, students are taught two different case-based scenarios: one using a standardized patient and one using manikin-based simulation. The standardized patient case involves a 42-year-old woman who works a stressful job at a bank. She presents to primary care with abdominal pain and alcohol use. Students were tasked with taking a thorough history, developing a differential diagnosis, and performing a brief counseling session on her alcohol use. The manikin-based case involves a 40-year-old male truck driver who was in a single vehicle, non-injury accident and noted to have an elevated blood alcohol level upon arrival to the emergency room. In addition, he had lithium toxicity from a recent NSAID prescription. Students were tasked with taking a full history, appropriately managing his alcohol withdrawal, discovering the lithium toxicity, and making the decision to admit the patient.

Students (n=90) completed a survey at the beginning of the session and then directly following completion of each of the two modules. Students were asked questions about their confidence, their enjoyment of the modules, the educational value, and others. The responses were compared to see if the gold standard (standardized patient) session was rated higher in any of these domains compared to the lesser-utilized modality (manikin).

Students who completed the standardized patient module gained confidence in various domains and enjoyed the session. Students who completed the manikin module also gained confidence in various domains, felt it was easier to treat the manikin as a real patient than expected, and enjoyed the session. Most importantly, there were no differences when comparing the two modalities. This indicates that manikin-based simulation, while significantly under-utilized, may be as effective as the gold standard, standardized patients, for teaching skills within a psychiatry clerkship. Medical schools with access to a manikin could consider adopting this modality to teach psychiatry clerkship students.

Brian S. Fuehrlein Yale University School of Medicine, New Haven, CT, USA



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