Perceptions and attitudes of senior versus junior academicians on the use of interactive mannequins for medical training: A scoping review

Rolly Riksanto Bachtiar, Nur Zaireena Zainal

Faculty of Medicine and Health Sciences, Universiti Sains Islam Malaysia, 71800 Bandar Baru Nilai, Negeri Sembilan, Malaysia

ABSTRACT

Introduction: Interactive mannequins are widely used in clinical skills training to enhance experiential learning in medical education. However, the adoption of this technology often results in different reactions among teaching staff, especially across various levels of academic experience. Understanding how perceptions and attitudes vary between senior and junior medical educators is crucial for successful implementation. This scoping review aims to explore and compare the perceptions and attitudes of senior and junior medical educators toward using interactive mannequins in clinical training. **Materials and Methods:** A scoping review was conducted following the PRISMA-ScR guidelines. Five electronic databases — PubMed, ScienceDirect, Cochrane Library, ERIC, and WorldCat — were systematically searched for articles published between 2013 and 2024. Studies were included if they addressed perceptions or attitudes of academic staff (senior and junior) toward interactive mannequin-based training. Six articles met the inclusion criteria and were analyzed thematically. Keywords used are Interactive mannequins, Medical Educators, Perceptions, Attitude, Medical Education. **Results:** The review identified consistent generational differences. Junior educators generally demonstrated more positive attitudes and openness toward simulation technology, highlighting its benefits for student engagement and clinical preparedness. Senior educators, while often more cautious, expressed concerns about realism, instructional time, and curriculum alignment. Nevertheless, exposure to simulation and participation in training workshops increased acceptance among senior staff. Key themes included perceived educational value, technological readiness, and institutional support. **Conclusion:** Variations in perceptions between senior and junior medical educators underscore the need for targeted faculty development and collaborative strategies for integration. These insights can help institutions optimize the implementation of interactive mannequins in medical education.

Keywords: Interactive Mannequins, medical educators, perceptions, attitude, medical education