

Review

The Effectiveness of Virtual Reality Simulation as Learning Strategy in the Acquisition of Medical Skills in Nursing Education: A systematic review

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Abstract

Purpose: This review was aimed to evaluate the effectiveness of virtual reality simulation as a teaching / learning strategy on the acquisition of clinical skills and performance, self-confidence, satisfaction and anxiety level in nursing education; Methodology: The Preferred Reporting Items for Systematic Reviews guidelines, using the PICO model that is based on an evidence-based practice process was matched. A total of twenty-three studies included six themes: performance skills (n = 13), self-confidence (n = 8), satisfaction (n = 10), anxiety level (n = 3), self-efficacy (n = 4), and knowledge (n = 15). Experimental randomised control trials and quasi-experimental studies from 2009 to 2019, conducted in English, were included. Nursing students (n = 1797; BSN, ADN, MSc, LPN) participated; Results and conclusion: This review was indicated that virtual reality simulation provides learning strategy to acquire clinical skills, improve knowledge acquisition, increase self-confidence, self-efficacy, and satisfaction level, and decrease anxiety levels among nursing students.

Key words: virtual reality, simulation, nursing students, nursing education, motor skills