

Cat B10 Haley Sauder, R3

Couto, T. B., Farhat, S. C. L., Geis, G. L., Olsen, O., & Schvartsman, C. (2015). High-fidelity simulation versus case-based discussion for teaching medical students in Brazil about pediatric emergencies. *Clinics (São Paulo, Brazil)*, 70(6), 393–9.

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Question: Which is superior, simulation-based teaching or case-based teaching in regards to knowledge building and retention and student satisfaction?

Background: Simulation-based learning has been gaining traction in medical education over the past years, and there is evidence that adult-based learners have greater affinity for interactive learning but there have been limited studies comparing the effectiveness of case-based or PBL versus simulation-based learning.

Methods: Group studied included 6th year (final year of medical school) undergraduate medical students at a single center in Brazil, and study design was non-randomized case control with crossover. Results were collected by using a student satisfaction survey in addition to retention testing at 4-6 mo. One group ($n = 76$) was taught anaphylaxis with a simulation scenario and supra-ventricular tachycardia with case-based discussion. Another group ($n = 87$) was taught the same concepts but with the opposite teaching methods. These group teaching sessions occurred during the students' pediatrics rotations.

Results: Overall, there was no statistical difference in retention between the case-based and simulation-based, however there was a greater amount of student satisfaction in regards to learning obtained via simulation.

Conclusions: Simulation is more fun than sitting in a circle and talking about cases, but not necessarily more effective for overall learning. One might consider hybridizing the learning for the next series of studies on this material.
