

## **Educational effectiveness of the use of high fidelity clinical simulation in a college level nursing program**

PAREA PA2010-004 'Universal Patient Simulator (UPS) Approach in Nursing'

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### **ABSTRACT**

**CHALLENGE:** In nursing, high fidelity clinical simulations (HFCS) have become an essential teaching tool. To date however, no empirical research has been undertaken, with CEGEP nursing students, to verify and validate the effectiveness of HFCS as a teaching tool.

**OBJECTIVES AND RESEARCH QUESTIONS:** This research had two primary objectives: 1) compare the perceptions of a sample of college nursing students about the educational effectiveness of two clinical simulation strategies: formative Objective Structured Clinical Examinations (OSCE) and HFCS; and 2) identify the perceptions and the beliefs of a group of students and teachers on the educational value of using HFCS in a college nursing program. The basic aim of the study being to improve the training methods used with nursing students in the college level 180.A0 Nursing program, the researchers wanted to answer three questions: 1) What perceptions did the students have of the educational effectiveness of HFCS use in the college level 180.A0 Nursing program? 2) What perception did the students have of the impact of HFCS use on their level of anxiety? and 3) What were the perceptions and beliefs of a group of college level 180.A0 Nursing program and 141.A1 Respiratory Therapy program teachers with regards to the educational value of HFCS?

**METHODOLOGY:** This research used a research methodology based on both quantitative and qualitative data collection. The quantitative data was collected from a single random sample of 36 students. The qualitative data was collected from two convenience samples composed of 5 students and 5 teachers. The quantitative part of the research required a complete crossover study of paired groups where the subjects participated in two consecutive training sessions, one in which a formative OSCE was used as the teaching method and the other in which HFCS was used. For the qualitative part of the research, the research team used a semi-directed interview method based on a semi-structured interview guide.

**RESULTS:** The research results indicate that students have validated the HFCS's educational effectiveness. In fact, they appreciated its educational design and practices. They also stated that they were confident in what they had learned based on HFCS and were satisfied. The findings also highlighted the fact that the HFCS design and practicum contributed to a learning environment that was less stressful for students. The students explicitly mentioned the fact that the HFCS method was less anxiety-provoking than that of the OSCE training. Finally, the teachers in the nursing program thought that using HFCS was a promising pedagogical option. They thought that the debriefing session was the most valuable part of the method. In conclusion, the findings indicate that it would be useful to integrate HFCS at the very beginning of the Nursing and Respiratory Techniques programs.