# HOW DOES SIMULATION INFLUENCE OUR NURSING EDUCATION?



Simulation involves acting out or mimicking an actual real life condition to find a cause or forecast future outcomes or assumed factors. So "what makes simulation an effective educational tool for nursing students and new graduates to apply to clinical situations?"



# **Key Findings:**

Technical proficiency of theory and psychomotor skills through repetition and regular reinforcement is a vital skill to nurses. In addition, having the ability to replicate a clinical scenario that is readily understood is crucial, as when it arises in reality in a clinical setting, the knowledge and skills can be applied accordingly (Cant & Cooper, 2010). Simulation tools need to be used effectively with guidance and formal instruction by those with expert assistance to meet learning outcomes and competencies, students and nurses cannot realistically be expected to do so otherwise (Kaddoura, 2010).

Although simulation does not completely reflect real life scenarios, it gives users a greater margin for error and with an electronically controlled patient on the table, the outcome is never definite. Simulation gives student nurses a supportive outlet in which to reign in on new skills and evaluate how to work within a supportive system and narrow focus in areas of improvement.



# **Clinical Issue:**

Something that has been incorporated into nursing education to consolidate theory into practice is simulation. Simulation is a technique that has been integrated into the nursing curriculum in New Zealand to replicate a real life clinical experience into a guided one (Gaba, 2004). Simulations are often immersive and offer a fully interactive approach, designed to expose students to clinical scenarios in which they can practice in a safe manner that will not put patient nor others in any unnecessary risk (Kaddoura, 2010; Shin, Park & Kim 2015).

This educational method has been involved in nursing education for a number of years due to a lack of clinical experience offered in the New Zealand nursing curriculum. Evidence has proven nursing students involved in simulation have enhanced learning opportunities and education in ways that traditional methods or other learning processes may not (Kaddoura, 2010).

## **Key Points of Successful Simulation:**

### REPITITION & REINFORCEMENT

STRUCTURED DEBRIEFING & SUPPORTIVE FEEDBACK

#### **EMOTIVE LEARNING CONCEPTS**

# **Recommendation's:**

- Increase availability of simulation use in laboratories for nursing students and/or new graduates.
- Ensure preparation as team performance in simulation can have varied influences on a simulation experience.
- Access and availability of experienced staff who offer strong support systems and give advice prior, during and after simulation scenarios.
- Simulations performed should be of high fidelity for a more realistic approach.

#### **Conclusion:**

Simulation is a technique aimed to educate and solidify theory into practice. Without simulation as an educational tool there would be no prior practice of skills, pressure and expectation to deliver patient cares as if on placement, which could result in avoidable error.

#### **References:**

Cant, R. P., & Cooper, S. J., (2010). Simulation-based learning in nurse education: systematic review. *Journal of Advanced Nursing*, 66(1), 3-15. dio: 10.1111/j.1365-2648.2009.05240.x

Gaba, D. M., (2004). The future vision of simulation in health care. Quality & Safety in Health Care, 13 Suppl1, i2-10. doi: 10.1136/qhc.13.suppl\_1.2.

Kaddoura, M. A., (2010, July). New Graduate Nurses' Perceptions of the Effects of Clinical Simulation on Their Critical Thinking Learning, and Confidence. *The Journal of Continuing Education in Nursing*, 41 (11), 506-516.

School of Nursing Simulation Learning Centre. [Photograph]. (n.d.). Retrieved from: http://uncw.edu/simlab/

Shin, S., Park, J. H., & Kim, J. H. (2015) Effectiveness of patient simulation in nursing education: Meta-analysis. Nurse Education Today, 35, 176-182.

Students practicing their skills in Rural Clinical Simulation Centre. [Photograph]. (n.d.). Retrieved from: http://www.cgcc.edu/nursing-health-occupations/simlab

#### PICOT Model

	PICOT criteria	Explanation:
Population	Nursing students and	These are the people who are going to be using
	new graduates.	simulation as a learning tool in reference to nursing in
		clinical situations.
Intervention	Nursing students who	I will be using articles that gain an insight into the
	have had education	experiences and results of nursing students/graduates
	through simulation	who have used simulation throughout their
	practices.	training/education and the effect it has had.
Control	Nursing students who	I want to see the difference of traditional methods or
	have not used	other methods used in education other than simulation.
	simulation for	
	educational purposes.	
Outcome	Effective learning for	Want to find out whether the students involved gained
	those involved in	an insight and effective learning experience from an
	simulation.	educational simulation.
Time	N/A	N/A

Whitehead, D. (2013). Searching and reviewing the research literature (pp 35-56). In Schineder, Z & Whitehead, D (Eds). *Nursing and Midwifery Research Methods and appraisal for evidenced based practice*. (4<sup>th</sup> edition) Australia, Elsevier.

A poster presentation is a learning activity that stimulates curiosity and interest, encourages exploration and integration of concepts and provides a novel way of demonstrating an understanding of the topic or idea (Bracher, Cantrell & Wilkie 1998). Presenting my topic by poster was the most logical way to appropriately address the target audience as it encourages active engagement surrounding the chosen topic of simulation. Addressing an issue such as simulation, an area in which should appeal to all nursing students due to their involvement throughout training meant that it had to be designed to engage this specific focus group. This has required the development of concise and clear information and appropriate imagery via poster presentation as it plays to the strengths of the more visual learners (Summers, 2005).

I've addressed the key points in which students should have awareness of the components involved around simulation benefits and the associated learning outcomes and education. I certainly have a different perspective on my simulation experiences now as a third year to what I once had in year one, and I believe others will benefit from awareness of the related findings. By submitting such findings in a more stimulating manner, the target population can see the key points to why simulation is such a credential to Otago Polytechnic and the educational benefits that can be gained by nursing students and staff alike.

Bracher, L., Cantrell, J. & Wilkie, K. (1998). The process of poster presentation: a valuable learning experience. *Medical Teacher*. 20: 6, 552-557.

Summers, K. (2005) Student assessment using poster presentations. Paediatric Nursing. 17, 8, 24-26

