

# Multi-disciplinary in-situ simulation: Implementing and evaluating sustainable team training

Ben Smith<sup>1</sup>, Lisa Reichelt<sup>2</sup>, Chris Norton<sup>3</sup>

1 Melbourne Health, c/o Post Office The Royal Melbourne Hospital, Parkville, VIC, 3050, Ben.Smith@mh.org.au

2 Melbourne Health, c/o Post Office The Royal Melbourne Hospital, Parkville, VIC, 3050, Lisa.Reichelt@mh.org.au

3 Melbourne Health, c/o Post Office The Royal Melbourne Hospital, Parkville, VIC, 3050, Chris.Norton@mh.org.au

## Funding Source:

Australian Resuscitation Council (ARC) – novice researchers grant, 2013.

Graduate Nurses Association - nursing research endowment award, 2014.

## Background

In many Emergency Departments (ED) nursing and medical staff are required to achieve yearly competency in Advanced Life Support (ALS). To date, many training approaches have been developed for delivery in teaching spaces that are located outside the ED, such as simulation laboratories. Due to staff rostering patterns and limited time available for training, these programs tend to focus on skill development for a single discipline and therefore lack important contextual factors that may influence performance in the real world, such as team work and communication.

## Aim

1. To discuss the development of an evidence-informed multi-disciplinary in-situ simulation program for ALS training,
2. To explore the challenges of implementing the program
3. To present outcomes of the program (fidelity, staff knowledge, self-efficacy).

## Setting

An Adult Tertiary Referral and Level 1 Trauma Centre with an annual presentation rate of 65,000, located in Victoria Australia.

## Method

A multi-disciplinary in-situ simulation program was developed and pilot tested by our ED Education Committee. The fidelity of the simulations was evaluated by comparing communication and team work activities observed in-situ and during real resuscitation <sup>1</sup>. Learning outcomes of participants at baseline were explored and compared before and after exposure to the program <sup>2</sup>.

## Results

More than half the staff who met inclusion criterion completed baseline knowledge and self efficacy assessments (61/120; 50.8%); performance was moderate with a 10% failure rate. There was no significant difference between pre and post test knowledge scores; variance in performance reduced post test. Self efficacy scores and knowledge test results were poorly correlated in pre and post test samples.

## Outcomes

Fidelity and feasibility of the in-situ simulation program was established and sustained in a busy level one trauma centre. Further work is required to optimise staff knowledge and reflection of factors influencing staff perceptions of their own performance.

**References:**

1. Guise, J.M. Deering, S., Kanki, ., Osterweil, P., Li, H., Mori, T., Lowe, N. (2008). STORC OB Safety initiative: Development and validation of the Clinical Teamwork Scale to evaluate teamwork. *Simulation in Healthcare* 3(4), 217-223.
2. Arnold, J. J., Johnson, L., Tucker, S., Malec, J., Henrickson, S., & Dunn, W. (2009). Evaluation tools in simulation learning: Performance and self-efficacy in emergency response. *Clinical Simulation in Nursing*, 5(1), 35-43. Doi:10.1016/j.ecns.2008.10.003.

**Acknowledgements:**

Marie Gerdtz, A/Prof, Nursing, Melbourne Health

Emergency Department Education Committee, Melbourne Health.