

A Multi-Disciplinary Approach to Simulation Training in Healthcare: James Cook University's Collaborative Experience

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Aim of the program

The use of simulation as an educational tool is becoming increasingly popular in healthcare training as increasing student numbers and concerns with patient safety challenge opportunities for traditional bedside teaching. Healthcare training centres face many challenges when implementing a simulation training program. Available guidance for successful program implementation is limited, and adaptation for each institution's unique setting is often required.

This study describes the approach taken by James Cook University's (JCU) Division of Tropical health and Medicine's (Townsville campus) approach for developing a multi-disciplinary, simulation-based training program with shared resources and centralised asset management.

Activities performed

- All Simulation Assets, equipment and consumables were registered and barcoded upon arrival to JCU;
- An organisation plan was implemented for distribution of goods to relevant teaching sites;
- Key staff positions were appointed to assist faculty in the development, implementation and evaluation of simulation training activities;
- Training opportunities were provided to staff and simulation education providers across both colleges;
- Simulation education materials were developed and embedded into the curricula (ongoing);
- Total 'simulation education hours' delivered within the health colleges throughout the reporting period were calculated (number of hours delivered multiplied by the number of students);
- 'Simulation education hours' delivered to undergraduate students from each discipline, hours delivered to post-graduate students and hours of simulation education with inter-professional applicability were also calculated;
- Students attending simulation sessions were surveyed on their learning experience.

Evaluation data

A total of 103,709 simulation education hours were delivered to 4,909 undergraduate students across all disciplines involved during the active reporting period of July 2013 to December 2014. Of these, 915 hours were delivered with inter-professional applicability.

One-hundred and sixty-six (60%) of the 274 students surveyed after attending simulation education sessions either 'agreed' or 'strongly agreed' they now had proficient knowledge and skills in the clinical skill targeted by the simulation activity.

Recommendations

The Simulation Capacity Building Project successfully facilitated the expansion of simulation education for undergraduate healthcare students in the Townsville campus. The early establishment of a culture of sharing and a multi-disciplinary approach to Simulation Capacity Building were key factors to the success of this venture.

Incorporation of simulation principles into the curricula has needed to occur in a slow, steady manner to allow staff and faculty members to assimilate new ideas and practices. Strategies for sustainability of simulation education, including ongoing maintenance costs, staff training and staffing costs must be sought for continued development and success of Simulation Capacity Building projects.

Conclusions

The Simulation Capacity Building Project successfully facilitated the expansion of simulation education for undergraduate healthcare students in the Townsville campus. The early establishment of a culture of sharing and a multi-disciplinary approach to Simulation Capacity Building were key factors to the success of this venture.

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