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| Case study Simulated Learning Environments Program |

Achieving the best in the west: Maternity simulation learning environment program

Background

The ‘Achieving the best for the West’ – Maternity Simulated Learning Environment (SLE) proposal was developed under the direction and guidance of the Western Clinical Placement Network (CPN) executive and committee. Key stakeholders from the Western CPN formed a SLE funding working party to ensure that consultation and collaboration occurred. This proposal addresses the priorities of both the Western CPN and the Victorian SLE Strategic Plan.

Demand for maternity services is high due to population growth in the Western Metropolitan Region, which is presently the largest in Australia in terms of absolute numbers (Salt 2010). A growth of 620 000 people in the north western catchment is projected between 2007 and 2024. The Local Government Areas of Wyndham and Melton grew by 7.2% and 7.4% respectively. This is five times higher than the national average (ABS 2010).

The current birth numbers at Western Health (WH) are 4300. Growth projections for maternity services outlined in the Western Health Service Plan 2011 estimate that more than 5500 births a year could be expected by 2015/16 and more than 6000 births by 2020/21.

Currently the public hospitals in the Western CPN are not meeting the demand for maternity services. Only 50% of pregnant women living within the catchment area have their maternity care provided locally by either Western Health or Werribee Mercy Hospital. The majority of pregnant women seek maternity services outside their local community. Other health services across metropolitan Melbourne provide maternity care to 65–70% of women within their catchment (data from WH Department of Planning and Development).

Both Western Health and Werribee Mercy Hospital (WMH) aim to increase their maternity services in order to provide care for at least 70% of pregnant women within their catchment and meet the needs of the growing population (WMH and WH Service Plans 2010). WMH is expected to double in size over the next 10 years.

Problems/drivers

The increasing birth-rate at WMH and WH services, also incurred an increase in clinical safety matters and the follow on effect is the need for clinicians to undertake care of an increased clinical load. The need for clinical placements and the ability to ensure clinical hours reflected more complex care requirements of the client lead to the development of the maternity SLE program in the Western CPN. The project aimed to provide professional-entry students of all disciplines the opportunity to manage and care for a patient with serious clinical issues and then reflect on how this care could be better managed or discuss outcomes as required. The result was incorporating SLE-based scenarios for professional-entry students and also staff to work collaboratively on skills and scenarios essential to managing a changing workload.

The timeframes outlined in the submission for execution of scenarios was initially delayed due to purchase, supply and education of new equipment. So for the short-term (initial six months 2012–13 financial year) the team decided to run low fidelity scenarios and work up scenarios in preparation for the arrival of the high-fidelity equipment. The need to commence the simulation education was crucial as outlined with the increasing numbers of births, student hours and project timeframes.

Arriving at a solution

Due to the known and quantifiable delay with the high fidelity equipment, the project managers reviewed other requirements for the project. The project managers worked on writing of scenarios, development of evaluations, networking with partnered users, targeted marketing of planned low fidelity simulation scenarios were planned, advertised and booked to ensure that the objectives to run scenarios remained on target and then when the equipment arrived for the high-fidelity scenarios the calendar for the new year (2013) was set out and prepared with the same groups. Targeted advertising and marketing ensured internal and external stakeholders received advance notice to book and participate.

Implementation process

It was decided that the first six months would be run with low-fidelity simulations towards the end of 2012. The other time was spent booking rooms, buying consumables, preparing reports, writing scenarios, learning how to use new equipment, devising timelines for the new year to run the high-fidelity simulations, development of evaluation tools and engaging stakeholders throughout the process.

The long-term planning and delay in equipment allowed for execution of the high-fidelity scenarios in the new year with better prepared staff and newly orientated professional-entry students introduced on a weekly basis to each scenario, debriefed and then requested to complete an evaluation for each scenario.

Outcomes

For the term of the project twelve maternal and neonatal care modules were researched, written and developed by the project managers. These included Shoulder dystocia, obstetric emergency/maternal collapse, neonatal IV strapping, neonatal hip examinations, premature labour, breastfeeding, breech, post-partum haemorrhage, pre-eclampsia / pregnancy induced hypertension.

Although the delays in supply, preparation and execution were an initial problem for the project, the time allowed for a full calendar of events. All these scenarios were run and fully executed as planned with minimal issue and the scale (or size) of the scenario was well-prepared for as all possible problems were worked through in the six months of downtime prior to the new year.

Professional-entry students (254) passed through one or more of these sessions while the project was commissioned. A further 431 ‘other’ participants were able to participate in these scenarios. The late arrival of equipment allowed for both low and high-fidelity simulations to be executed, evaluated and enhanced and redelivered by the end of the project.

Barriers

Barriers to this project being rolled out in a succinct manner included delayed delivery of high fidelity equipment. To overcome this issue, the project managers developed very good relationships with the suppliers. This allowed for timeframes around set up, education and maintenance for these pieces could be implemented. Then the timely commencement of education scenarios written during the pending arrival time was commenced.

Delivery to multiple sites and the secondary site, had limited storage capacity to accept the equipment arriving initially. Careful discussion and negotiation between sites and suppliers assured timely delivery to meet the objectives. The manager at MHW met with the education unit of the other health care network adjoining the site and initiated a plan to secure an appropriate storage solution that aided both sites and cross educational opportunities.

Future directions

The future directions will be continued simulations to be run across multiple campuses of Mercy Health and our partners.

The aim will be to run these with both professional-entry students and staff from our own site and invite partner sites to review opportunities to host collaborative events.

The intention is also to build on the current library of scenarios and build further relationships with other professional-entry student groups to incorporate a more multidisciplinary approach to future education opportunities where and when possible.

Further information

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