

CONFERENCE REVIEW

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SimTecT 2008 Health Simulation Conference “Simulation – Realising the Potential”
Royal Brisbane & Women’s Hospital Education Centre / Queensland Health Skills
Development Centre, 8-11 September 2008.

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“Simulation is the new PBL”

(Prof Brian Jolly, Health Educators Symposium, September 2008)

This conference was the 4th annual SimTecT simulation conference. The conference was attended by several hundred delegates from around Australia and many international guests specialising in a wide variety of simulation, held at the Royal Brisbane & Women’s Hospital Education Centre / Queensland Health Skills Development Centre.

The conference was convened by a national steering committee offering an excellent cross-section of national simulation specialists. The conference aimed to bring together national and international experts in simulation and patient safety across a range of educational contexts in order to tackle some of the challenges facing simulation in today’s demanding and uncertain health care sector.

Numerous pre-conference and conference-inclusive workshops were offered providing delegates with a wide selection of learning opportunities, and included the following:

- Simulation in a rural context
- Setting up a multidisciplinary simulation centre
- Simulation in nursing
- How to write scenarios for simulation
- Exploring facilitation skills
- How to provide effective communication during simulations
- Developing simulation courses
- Laparoscopic Surgery
- Dealing with the difficult debrief post simulation

The conference ran over four days, integrating presentations with workshops and real-time simulation scenarios provided by METI and Laerdal.

Up to four concurrent sessions were offered to delegates. There were two categories of oral presentations; research papers (full papers) 15 minutes presentation time, and poster

presentations. Additional time was provided for delegate questions during research papers and posters were rotated over three days.

The conference committee invited seven keynote presenters namely, Professor David Gaba (Stanford School of Medicine), Dr Paul Phrampus (WISER Simulation Centre, Pittsburgh) and Dr Kim Leighton (BryanLGH College of Health Services, Nebraska). Delegates were lucky enough to hear from over twenty other invited speakers from national and international experts.

The most notable presentations attended by the author were as follows:

David Gaba

David summarised the history of simulation, outlining the exponential growth of simulation drawn out from the aviation industry in the late 1960's. Presently, simulation is cycling (combining) through didactic seminars, virtual worlds and Sim centres. Whilst growth has been explosive, development is very irregular, particularly in health disciplines, domains, countries and locales. This being the case, progress is/will be slow for some disciplines and domains.

He highlighted the difficulties associated with healthcare systems and evaluating effectiveness given they involve complex care involving personnel from many different units – CCU, ICU, ED etc. He discussed the current background in US health care, acknowledging that whilst medical knowledge and skills were expected to be uniform and guaranteed, they were indeed not in many instances.

He outlined the importance and potential benefits of simulation in the context of patient safety. Medical errors occur frequently as quoted from the Institute of Medicine (<http://www.iom.edu/>). This represents approximately 1% of all hospital admissions involving fatal errors that equals 1 death every 5 minutes in US (incidentally, much greater than aviation – the 2002-2007 period has only seen up to 50 deaths) – which is amplified by the work of clinicians not being regulated in the US.

He also pointed out that small differences in simulation can have a big effect on patient outcomes/safety. Although integration of simulation into healthcare education may not be fully integrated unless forward thinking healthcare policymakers make this happen, David also emphasised that it is hard to measure the impact of simulation definitively from present educational research, as studies tend to use small samples on short time horizons.

In conclusion, David discussed whether simulation can improve safety and suggested that definitive proof for many applications may be impossible due to logistics and cost, pointing out that the real test is centred on the following:

- Long term adoption
- Integrated models
- Long term horizon
- Training assessment
- Career long

His final words ... “The public is the ultimate driver, and how best to engage the public becomes one of the challenges of simulation in health care”.

Dan Raemer

Dan provided an excellent demonstration of the power and utility of videoconferencing in simulation. In his example, he showed the audience a realistic surgical simulation in real-time, despite the audience being in a different geographical location. He outlined the conference facility, format and hard/software required to undertake simulation via videoconferencing. He argued that videoconferencing is an effective tool because:

- Effective for large groups
- Comfortable setting to engage audience to simulation
- Enhance realism using ‘tricks’
- Allows powerful stop-action and redo techniques
- Engage the audience into decision making

He also outlined the potential downsides to such technology:

- Not quite immersive engagement
- Risky technology
- Potentially expensive

Premilla Chinnappa, Stuart Marshall, Brendan Flanagan, Julia Harrison

This session was particularly relevant given the recent findings from Kathryn Eastwood’s Masters project (Monash University) that investigated paramedic’s ability to perform drug calculations. In this presentation Stuart reinforced the background of the study in the context of patient safety. The paper quoted nearly 2% of all hospital admissions in Australia has a medication safety incident leading to patient harm. Possible causes of these errors were identified as organisational, e.g. ineffective monitoring or human i.e. incorrect medication calculation. Stuart outlined the 5-day course offered at Southern Healthcare Simulation Centre for final year medical students that included:

- Why teach safety practice?
- Pharmacology of medications
- Prescribing and administering medications
- Teamwork/communication

Other notable presentations included: John Windsor who suggested that simulation (and its independent fidelity) in some areas is causing a mismatch between teaching core clinical skills. He proposed that virtual simulation is gaining evidence of reliability and validity in the literature and perhaps has the capacity to teach procedural skills whilst also supporting team-based training quoting the work of Grantcharov. Continuing the virtual simulation theme, Keith Ward provided an interesting and engaging presentation of the Penfield Virtual Hospital

(http://www.hud.ac.uk/hhs/departments/nursing/penfield_site/pages/about_penfield.htm)

which provided students with access to virtual (but realistic) patients which, from an observer’s point of view, seemed educationally and pedagogically robust.

The team from the St Vincent’s Simulation Centre provided three excellent sessions of their work establishing a multidisciplinary simulation train-the-trainer and clinical skills in-hospital project. The papers outlined (i) the effective use of the Pendleton Model of feedback and Peyton Model of teaching clinical skills, (ii) that some clinical skills were not taught according to interprofessional learning approaches and (iii) the development of new clinical skills list – perceived to be the common clinical skills.

In closing, the overall organisation and quality of presentations was generally excellent. Many new teaching, communication, and debriefing ideas were offered as were potential collaborative research opportunities. It was refreshing to see a broad range of health care professionals attending and presenting at the conference. Next year, for the first time, Melbourne will host the SimTecT conference (Simulation – Beyond Technical Skills) from 7-10 September 2009. If you have an interest in all things ‘simulation’ then I encourage you to mark this down in your 2009 diary.

Further details can be found at the following URL:
<http://www.siaa.asn.au/simtect/2009health/2009.htm>