INVESTIGATING THE USE OF SIMULATIONS IN ENHANCING CLINICAL JUDGEMENT OF STUDENTS TO PRACTICE AS REGISTERED NURSES

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In fulfillment of the requirement for the degree of

Doctor of Philosophy in Education

PhD

2014
Certificate of Authorship / Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Signature of Candidate
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2013
“Using Simulation as Preparation for Clinical Practice: Pedagogy and Research”,
Korean Society for Simulation in Healthcare, (May, Seoul, South Korea)

“Simulation in nursing programs: an Australian perspective”
ChungAng University, Seoul; Choonhae College, Ulsan; Kyungpook National
University, Daegu, (May, South Korea)

“Beyond CPR! Unique and innovative simulation scenarios to advance clinical practice”,
Laerdal Simulation User Network (SUN) Meeting, (July, Wellington, New Zealand)

2012
Simulation for Nurse Educators: Pre-conference workshop SESAM, (June, Stavanger,
Norway)
International faculty from UK (Aldridge M), Norway (Husebo S,) Australia (Kelly)
and Switzerland (van Gele P).

“Simulation down under: the Australian experience”. 5th Annual WISER
Symposium on Nursing Simulation, (May, Pittsburgh, USA)

2010
“Transformation in simulation reflecting current practice and practice environments”, 8th
International Conference for Emergency Nurses, (October, Canberra, Australia)
# Table of Contents

Certificate of Authorship / Originality ................................................................. i

Acknowledgements .............................................................................................. ii

Publications related to simulation published concurrently to undertaking doctoral research iv

Simulation Related Presentations - invited keynote speaker........................................ iv

Table of Contents .................................................................................................. vi

List of tables ............................................................................................................. xi

List of figures .......................................................................................................... xi

Abstract .................................................................................................................. xii

Terminology ............................................................................................................. xv

Chapter 1: Introduction ......................................................................................... 1

1.1 Renewed learning strategies - the rapid rise of simulation in healthcare ..........1

1.2 The intersection between patient safety, simulation and preparation for practice ....2

  1.2.1 Patient safety and simulation .................................................................3

  1.2.2 Patient safety, simulation and preparation for practice .......................4

1.3 ‘Thinking like a nurse’ – development of clinical judgement ..........................6

1.4 Informing simulation practice through relevant learning theories ..................7

1.5 Government interest and funding in healthcare simulation ............................7

1.6 Introducing the research questions – a deeper perspective on simulation learning ....8

1.7 Organisation of the thesis .................................................................................9

Chapter 2: The Emerging Importance of Simulation in the Preparation of Health Professionals ...................................................................................... 10

2.1 Current Challenges in Healthcare Education .................................................... 10

2.2 Entering nursing practice – the new graduate year .......................................... 12

  2.2.1 Transition to practice – areas of concern voiced by new graduates ........13

  2.2.2 Transition to practice – areas of concern from the service sector ..........25

  2.2.3 A process of ‘becoming’ - the professional role transition ....................28

2.3 Preparation for practice - blending theoretical knowledge with practical know how 32

  2.3.1 Traditional skills practice and role play .............................................33

  2.3.2 Teamwork, effective communication and clinical judgement ...............34
7.3 Emotionally charged yet safe learning experiences ........................................................ 187
  7.3.1 Emotional learning is shaped by students’ characteristics and roles .................. 188
7.4 Reflection on and about practice ............................................................................... 189
  7.4.1 Understanding the roles and responsibilities of registered nurse practice..... 190
  7.4.2 Facilitated debriefing and post-simulation reflection ........................................... 193
  7.4.3 Feeling prepared for the NG role ...................................................................... 195
7.5 How students processed and used simulation experiences ........................................ 196
  7.5.1 A journey .......................................................................................................... 197
  7.5.2 A ‘movie in my mind’ and feeling in control .................................................... 198
  7.5.3 Systematic approaches to care, doing research and making checklists ........... 199
  7.5.4 Beyond the patient .......................................................................................... 199
  7.5.5 Meaningful responses in a job interview ......................................................... 200
7.6 Replicating simulation experiences in practice - improved patient outcomes? ...... 200
7.7 Beyond advanced beginners on entry to practice? .................. ............................. 202
7.8 Strengths and Limitations of the research ................................................................ 203
7.9 Contribution of the research to ongoing simulation practices and research ........... 206

Chapter 8: Conclusions and Implications ....................................................................... 208

8.1 New insights from the research ................................................................................. 208
  8.1.1 Providing meaningful simulation learning experiences – for all student groups 208
  8.1.2 The contribution of simulation for clinical judgement and nursing practice... 209
  8.1.3 Simulation learning – the central pedagogies.................................................. 209

List of Appendices ...................................................................................................... 211
  Appendix A: Tanner’s Model of Clinical Judgment ...................................................... 211
  Appendix B: Pre simulation survey .............................................................................. 212
  Appendix C: Post-simulation survey ........................................................................... 214
  Appendix D: Group interview questions ..................................................................... 215
  Appendix E: Follow-up interview questions ................................................................ 216
  Appendix F: Schedule for follow-up interviews (2010) .............................................. 217
  Appendix G: Information letter and consent (Phase/Study 1) .................................... 218
  Appendix H: Information letter and consent (Phases 2 & 3; Study 2) ....................... 219
  Appendix I: Standard confidentiality and recording agreement .................................. 220
  Appendix J: Types of simulated patient cases, students’ roles and level of academic guidance ................................................................................................................ 221
References ................................................................................................................ 223
List of tables

Table 1: Gaba’s 11 dimensions for healthcare simulations .............................................................. 37
Table 2: Demographic data of the samples (Study 1 and Study 2) ..................................................... 108
Table 3: Details of the deteriorating patient simulation scenario ..................................................... 110
Table 4: Ranking and mean ratings (scale of 1-5) of students’ ratings of the benefit of simulation components to making clinical judgements (N=102) ......................................................... 129
Table 5: Rankings of simulation components for each student subgroup: Mean (SD) ..................... 130
Table 6: Study 2 participants: Study stream and simulation experiences. Each participant is identified by a pseudonym ............................................................................................................. 134

List of figures

Figure 1: Jeffries’ (2005) model representing the ‘Framework for designing, implementing and evaluating simulations’ ............................................................................................................................... 39
Figure 2: Tanner’s Model of Clinical Judgment (2006) ........................................................................ 40
Figure 3: Positions in the learning theoretical tension field (Illeris 2002, Figure 16) ......................... 84
Figure 4: Procedure, processes and products for Study 1 and Study 2 .............................................. 104
Figure 5: Word cloud (Wordle™) representing responses to areas where students perceived to feel least able or lacking in their current knowledge of nursing practice ................................................... 125
Figure 6: Word cloud (Wordle™) representing responses to what students would do differently if they encountered a similar situation again in clinical practice ........................................... 127
Figure 7: Word cloud (Wordle™) representing responses to the question ‘how could simulations help you practice as a Registered Nurse?’ .................................................................................. 128
Figure 8: Illustrations of moulage applied to the manikin for a trauma simulation .......................... 139
Abstract

On entry to the workforce nursing graduates are expected to respond to a range of clinical situations they may not have experienced during their program. The social aspects of practice such as professional behaviours are equally important for transitioning to the registered nurse role. Contemporary simulation strategies can provide students with experiences of how Registered Nurses would respond in a guaranteed range of patient care situations.

The exponential rise of healthcare simulation over the last 15 years is reflected in the prolific number of publications about its use, participant evaluation and satisfaction, or improvements in skills technique. Few of these evaluations capture the impact of the simulation learning experiences beyond the immediate timeframe of the activity. Similarly, there is little research about how simulations may contribute to the ‘thinking’ aspects and holistic nature of professional practice and the pedagogy of simulation practices. This research explored the contribution of simulation for final year nursing students’ learning and clinical judgement capabilities; and the effect of simulations on students’ subsequent practice as new Registered Nurses in the year following graduation.

Methods

A multi-phase mixed methods approach was used in the research which comprised two studies. In Study 1, 108 final year nursing students responded to a pre- post-simulation survey. Opinion was sought about self-rated skills, knowledge and dimensions of practice prior to and following the simulation. The post-survey asked students to rate 11 components of the designated simulation to the application of clinical judgment. Study 2 comprised group interviews with nine students at degree completion, and 1:1 interviews during the first three months of registered nurse practice.
Standard statistical analysis was applied to quantitative data and word clouds were created from the survey free text responses. Data from group and individual interviews produced a number of themes following iterative analyses. Students from three study streams were represented in both studies: 3-year program, 2-year accelerated graduate entry program; and 2-year accelerated enrolled nurse program.

**Key findings**

Prior to the simulation students felt least able about: caring for *patients*, their *knowledge* and *clinical* abilities. Following the simulation there was greater importance on the *patient, communication* and *assessment*. The top three simulation components which assisted students with clinical judgements were: *post-simulation reflection*, *facilitated debriefing* and *guidance by the academic*.

At course completion students reported the simulations provided them with greater insight into the professional traits required for registered nurse practice as the activities presented opportunities to *glue things together*, draw on *tacit knowledge* and appreciate the *holism of practice*. Learning within simulation was *situated, experiential and contextual* but also elicited *affective elements* of learning, that is: emotions, behavioural norms and professional attitudes. Immediate effects on practice were greater attention to noticing patient cues and a willingness to inquire further and respond in meaningful ways.

In the early months of practice, participants recalled the simulation experiences during sequent patient care situations of *similar or contrasting* contexts. Each new graduate nurse cited at least one instance where they were able to anticipate what may happen next in the patient care trajectory and responded by making judgements and decisions relative to the urgency of a situation. Clear connections were made between the simulations and their contributions to clinical practice.
Conclusion

Unlike other educational strategies, simulations provided unique learning opportunities for nursing students which contributed in meaningful ways as preparation for independent practice. In addition to improving confidence for practice, these new graduate nurses were able to make appropriate clinical judgements often within challenging situations, which influenced patient outcomes in positive ways.
## Terminology

<table>
<thead>
<tr>
<th><strong>Bachelor of Nursing (BN)</strong></th>
<th>A university degree of 3 years duration (standard program) which provides students with the qualification to practice as a Registered Nurse in Australia</th>
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</thead>
<tbody>
<tr>
<td><strong>Course</strong></td>
<td>An alternate descriptor of the Bachelor of Nursing and it’s many streams</td>
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<tr>
<td><strong>Debriefing</strong></td>
<td>The defined time set aside after a simulation for facilitated discussion about the events which occurred in the learning activity</td>
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<tr>
<td><strong>Enrolled Nurse (EN)</strong></td>
<td>A healthcare worker who has a minimum Diploma of Nursing qualification usually received through a Vocational Education and Training (VET) sector or private education provider. ENs practice under the supervision of Registered Nurses.</td>
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<tr>
<td><strong>Graduate Entry (GE)</strong></td>
<td>Students within the 2-year GE program possess a Bachelor Degree in another discipline, more latterly a health related field</td>
</tr>
<tr>
<td><strong>New Graduate (NG) nurse</strong></td>
<td>Newly graduated nurses who generally undertake a 12 month employment contract with hospitals or other health services. During the NG year educational and clinical support are provided in the form of orientation and other study days and mentoring in the clinical areas by staff and clinical educators.</td>
</tr>
<tr>
<td><strong>Program</strong></td>
<td>An alternate descriptor of the Bachelor of Nursing and it’s many streams</td>
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<tr>
<td><strong>Rapid Response</strong></td>
<td>A team of experienced doctors and nurses who respond to a call by other clinical staff to assist with acute episodes of patient deterioration</td>
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<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td>Simulation</td>
<td>A learning activity which usually occurs in a dedicated space (simulation laboratory or centre) and replicates clinical practices and situations to rehearse responses and improve performance</td>
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<tr>
<td>Simulation experience</td>
<td>The participant’s personal experience of the simulation learning activity; or a collection of units of ‘simulation’ which together form a total experience</td>
</tr>
<tr>
<td>Simulation learning activity</td>
<td>Activities that are usually planned and scheduled into (undergraduate) curricula; also - simulation</td>
</tr>
<tr>
<td>Subject</td>
<td>A unit of study within a course or program. Comprises 6 credit points towards the required 72 credit points for a university Bachelor degree. Full time students usually undertake 4 subjects per semester</td>
</tr>
<tr>
<td>Team-based simulation</td>
<td>A simulation comprising 2 or more participants who may be present in the simulation ‘space’ or another location but contactable by telephone or other communication device</td>
</tr>
<tr>
<td>Team Leader (TL)</td>
<td>A person taking charge of a shift; usually the most experienced nurse who is employed by the facility (hospital) rather than a casual or temporary employee</td>
</tr>
<tr>
<td>Tutor</td>
<td>Teaching staff who are usually academics of the respective Faculty or School of Nursing. Some tutors may be employed on a contract basis as needed per semester</td>
</tr>
<tr>
<td>Tutorial</td>
<td>A more informal occasion for learning which is either conducted in laboratories or classrooms with a duration of 2-3 hours</td>
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