



An Implementation Framework for the OSCE 'Best Practice Guidelines' designed to improve nurse preparedness for practice

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Final Report

2013

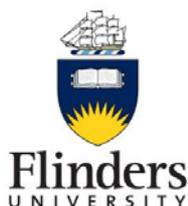
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List of Acronyms

ALTC	Australian Learning and Teaching Council Ltd
BPG/s	Best Practice Guideline/s
CDNM	Council of Deans of Nursing & Midwifery Australia and New Zealand
CRH	Centre for Remote Health Alice Springs
GU	Griffith University
HWA	Health Workforce Australia
FU	Flinders University
JCU	James Cook University
MICRRH	Mt Isa Centre for Rural and Remote Health
NHET-Sim	National Health Education and Training Simulation website
OLT	Australian Government Office for Learning and Teaching
OSCE	Objective Structured Clinical Examination
RANs	Remote Area Nurses
RN	Registered Nurse
SIM	Simulation- use of simulation as an educational tool
SLE	Simulated Learning Environment
SONM	School of Nursing and Midwifery
UOW	University of Wollongong
UK	United Kingdom
UTS	University of Technology Sydney
VSPN	Victorian Simulated Patient Network

Meaning of words/term

Course = unit of study/subject/topic of a semester's duration

Program = entire degree, for example Bachelor or Nursing

Course convenor = academic staff member responsible for the overall management of the course

Executive Summary

Objective Structured Clinical Examinations (OSCEs) are clinical assessments designed to evaluate a range of professional skills and knowledge related to clinical practice. They are well planned assessments of clinical competence where the components of competence are well structured to achieve objectivity. OSCEs are widely used in health professional education to better prepare students for practice. Seven integrated Best Practice Guidelines (BPGs) were developed to inform their judicious use in OSCEs within educational programs by the project team of eight academics from six higher education institutions around Australia. OSCE pre-considerations were described and act as a precursor for academics to explore further prior to embedding OSCEs within courses and programs.

This project implemented and evaluated seven BPGs in four diverse metropolitan and remote settings with undergraduate and post-graduate students of nursing and midwifery. These sites were at Griffith University (Brisbane), University of Technology, Sydney, Flinders University (Adelaide) and Centre for Remote Health (Flinders University, Alice Springs), thus providing a nation-wide evaluation. Two sites used the OSCEs for formative student assessment and two for summative student assessment. One site had a high-fidelity simulation setting, two others used student peers as 'the patient' and the last had actors as 'the patient', representing a number of different styles of OSCE format.

Across the four sites, 691 students participated in revised OSCEs. Post-OSCE experience surveys were completed by 557 students (response rate 80 per cent); with 91 students providing further feedback through focus groups. Academics provided feedback by way of interviews.

Students indicated OSCEs strongly supported their learning and preparation for practice by providing meaningful, authentic activities in an integrated manner. Academics readily adapted and embraced the BPGs within their OSCEs' development, delivery and student assessment. They recognised and welcomed the theoretical components of the pedagogy underpinning each BPG as it supported their practice and the students as learners.

The OSCEs that were revised according to the BPGs resulted in quality student preparation for workplace situations – thus achieving a key aim of the study. Another key project outcome was the Implementation Framework, developed to provide additional guidance to academic colleagues in how the BPGs improve student learning and how each guideline can be implemented by way of the **Four Os**. These include enhanced **O**ppportunity, **O**rganisation considerations, the required **O**versight and important **O**utcome measures (see Appendix A).

The high participation rate from such varied learning and teaching environments supports the project team's claim regarding the value of this transferable set of robust strategies and resources in the form of BPGs for OSCEs. Universally, the BPGs were shown to demonstrate success across the diverse tertiary nursing and midwifery student groups and programs.

This project has successfully trialled and, as a consequence, re-developed a set of eight BPGs to guide the development, teaching and assessment of OSCEs to increase student preparedness for practice. The project has formulated an overall Implementation Framework to guide future use of the BPGs in other settings. A program of dissemination of the project strategies and resources has commenced and includes workshops and seminars, specialist and general nursing and midwifery conference presentation and peer reviewed journal articles. Distribution of the materials via the Deans of Nursing and Midwifery in Australia and New Zealand together with the Victorian Simulated Patient Network and the National Health Education and Training in Simulation website will further enhance the translation across the sector.

In conclusion, the OSCEs assessed in this research (by evaluating student learning and academic input), were enhanced by utilising the BPGs. They provided both a theoretical and practical guide to increase the validity and reliability of student learning across a diverse set of four sites. OSCEs developed using the BPGs should be incorporated into nursing and midwifery curricula to enhance safe authentic clinical practice.

Recommendations for education: This project has successfully shown the wide and varied use of OSCEs within both nursing and midwifery education. The additional value of having OSCEs for summative assessment needs to be weighed up against the educational purpose they serve. The emphasis of designing OSCEs that are relevant to clinical practice with a focus on safe delivery of care provided a sound foundation for curriculum design and gave students effective learning opportunities not available in the real world.

The pedagogical underpinnings of the Implementation Framework and the BPGs provide educators/academics with theoretical educational support to change current practice and initiate better OSCEs for student learning. This momentum needs to continue.

Recommendations for practice: The OSCEs developed, taught and assessed using the BPGs have been shown to provide effective learning opportunities from both the educator and student perspective. Consequently, their introduction for on-going learning for clinicians within clinical agencies is recommended. Already, OSCEs (using the BPGs) are being used in one large hospital as a tool to assess candidates applying for senior clinical roles in the Intensive Care Unit. This safe, valid, reliable and fair method of assessment of clinical ability has been positively received by both applicants and interview panel members. A peer-reviewed publication has been accepted for publication in the *Journal of Nursing Administration* in regards to this innovative application of OSCEs for position selection.

Recommendations for research: One reference has been made above to a broader utilisation of the OSCEs within the clinical area. This could be further expanded to core and advanced professional competencies so valued by the profession and professional accrediting bodies to ensure clinical practice is advanced. This broader application requires diligent and sound research methods to adequately evaluate the efficacy of such practice interventions.

The issue of student feedback and how it is managed with summative OSCEs (in particular) was unresolved. This is an important area for further research as poor quality and inconsistent feedback will undermine the learning process.

This project has been limited to the areas of nursing and midwifery; however, a number of other health professions similarly need safe, valid, reliable and fair methods of clinical experience and assessment of clinical ability. It is therefore recommended that further research with OSCEs developed, taught and assessed using the BPGs occurs with other health professions such as medicine, physiotherapy, dentistry and pharmacy.

The key outcomes: These centre on the capacity to add to the knowledge, understanding and development of best practice in teaching, learning and feedback techniques related to clinical practice. This was and will continue to be achieved through dissemination strategies such as: web site resources; workshops at four participating trial sites; relevant conferences; and journal publications. This knowledge will be specifically beneficial to enhancing nursing and midwifery curricula using OSCEs. Specifically, this will be achieved through the following:

1. A sustainable and flexible Implementation Framework for OSCEs Best Practice Guidelines that support students' preparation for practice – see section 6.2 (Table 10 and Appendix A) of this report.
2. Enhanced capacity of tertiary educators in nursing and midwifery courses and clinical supervisors in healthcare services to promote preparedness for practice – see section 5.2.

3. A strategic change within the systems of tertiary nurse education and clinical supervision in healthcare organisations, as well as greater recognition of their potential contributions – see dissemination strategies as outlined in 7.4.
4. A transferable set of strategies and resources for the development and embedding of the BPGs to a diversity of tertiary education providers with undergraduate nursing and midwifery courses – see Appendix A. In addition, project publications within both general and context-specific journals provide further exemplars for nursing and midwifery colleagues.

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1. Introduction

1.1 Purpose

Patient assessment is increasingly recognised as a critical task in need of improvement across the tertiary education sector. An Objective Structured Clinical Examination (OSCE) is a type of examination used across the health sciences to test clinical performance and competence across the necessary skill sets. OSCEs may be used to increase the rigour of assessment and assure student learning and competence. To achieve this OSCEs must be informed by educationally sound principles. However, there is a gap in the literature to provide such direction to inform the development of OSCEs. A framework which describes and explains the use of OSCE Best Practice Guidelines (BPGs) in a range of contexts with appropriate teaching, learning and feedback strategies is needed to effectively implement OSCE assessment and utilisation in nursing and midwifery.

The purpose of this project was to develop an implementation framework to guide the integration of BPGs (Nulty, Mitchell, Jeffrey, Henderson & Groves, 2011) into nursing curricula and in tertiary education programs.

1.2 Background

The project was based on work completed at Griffith University which successfully developed, trialled and evaluated a set of seven OSCE BPGs (Appendix B) aimed to improve the effectiveness of OSCE learning and assessment practices (Nulty et al., 2011). This earlier project was limited as it was trialled in only one site with Bachelor of Nursing students. The current project explored how these BPGs could be integrated into different curricula across the country. The project aligned with the objective of the then Australian Learning and Teaching Council (ALTC): To promote and support strategic change in higher education institutions for the enhancement of learning and teaching.

OSCEs are widely used throughout health education in Australia and overseas to assess students' ability to perform practical skills in a controlled environment where there is no threat to patient safety but there is little structured guidance of their design and implementation (Nulty et al., 2011; Ward & Barrat, 2005; Wessel, Williams, Finch & Gemus, 2003). The OSCE requires each student to demonstrate specific skills and behaviours in a simulated clinical environment with standardised patients or manikins. It may consist of a whole patient assessment or a series of short assessment tasks (stations) each of which is assessed by an examiner using a pre-determined marking criteria (Ward & Barrat, 2005).

Research has shown OSCEs to be an effective method of assessing safe practice in undergraduate nursing and midwifery curricula in terms of performance in psychomotor skills as well as the declarative and schematic knowledge associated with their application (Nulty et al., 2011; Mitchell, Henderson, Groves, Dalton & Nulty, 2009). Successful performance in an OSCE ensures that key practical components of professional practice have been demonstrated (Good, 2003; Klein, 2006). As with all types of assessments OSCEs need to be designed within the context of the curriculum and be rigorous with standardisation and objectivity being principal elements (Ebbert & Connors, 2004). The OSCE allows for consistent and equitable methods of examination as all students can be exposed to the same clinical situation which is not possible on clinical placement (Becker, Rose, Berg, Park & Shatzer, 2006).

1.3 Rationale

The demands on tertiary education by industry are for work-ready and safe graduates. Therefore it is important that graduates are 'fit to practice' and equipped with skills for life-long learning and professional development (Bartfay, Rombough, Howse & LeBlance, 2004). Effective clinical learning is imperative for quality preparation for practice. However clinical placements which are fundamental to nursing and midwifery programs can be difficult to sustain with the following interacting reasons (Beattie, 2009):

- a) A growing number of government funded university student nursing and midwifery places have resulted in a dramatic increase in student numbers requiring clinical placements.
- b) A reduction in the length of stay of patients in acute hospitals making the majority of in-patients requiring high levels of care therefore student supervision becomes less of a priority (Major, 2005).
- c) Workforce shortages often place junior or temporary staff in in-charge positions therefore the added role of student supervision is problematic for these staff (Rischbieth, 2006).
- d) The financial cost of supervision of nursing and midwifery students in the clinical setting impacts on the quality of feedback provided to students (Kerr, 1997).

Universities need to respond to these challenges in ways that are acceptable to both health professions and other stakeholders. The significant reduction in the availability of clinical placements for nursing and midwifery students has increased the imperative for universities to provide learning and assessment strategies on-campus to maximise competence prior to clinical placement so the student can make the most of opportunities presented. The effective use of OSCEs has the ability to provide this process.

Student assessment is regarded as the single most important aspect of curriculum design in determining how students engage in learning (Biggs, 2003). Clarity and authenticity in assessment purposes are imperative as they relate directly to the students' patterns of engagement and the quality of their learning outcomes. Providing clear and constructive feedback on a students' performance is the most effective way of reinforcing student learning (Childs & Sepples, 2006). The use of OSCEs as formative and summative assessment tasks can clearly communicate to students' relevant and authentic learning needs and provide feedback in a timely manner. Better use of simulation learning experiences improves the preparedness of students as controlled learning can expose students to quality clinical exposure not always available on the clinical placement (Tanner, 2006).

The appropriate use of OSCEs can be seen to address the above educational concerns by directing what students learn, integrating the task with relevant theoretical knowledge and providing students with real-time feedback on their performance. OSCEs which are grounded on sound pedagogical principles are a valuable strategy to teach and assess clinical skills acquisition and 'fitness to practice' as applied to the students' current context. OSCEs can be used effectively as an educational strategy for meeting some of the challenges from restricted clinical placements (Tanner, 2006). A framework for implementing OSCEs in nursing and midwifery curricula would contribute to a long term, positive change in health education.

1.4 The Project Team

The project was led by the School of Nursing and Midwifery (SONM) Griffith University (GU) in collaboration with three diverse practice sites: Flinders University Adelaide (FU); University of Technology (UTS); and Centre for Remote Health Alice Springs (CRH) (a joint centre of Flinders University & Charles Darwin University). These partner sites were specially selected for their ability to add diversity and institutional differences in locations around Australia, locations within state/territory (metropolitan and rural); educational programs (both under-graduate Bachelor of Nursing and Bachelor of Midwifery and a post-graduate Nursing speciality program); use of high fidelity simulation environments versus the use of peers and manikins; student demographics (e.g. socio-economic, age and type of student) to support a varied context for the OSCE assessment and ability to promote dissemination to the broader health education sector.

1.4.1 Project Team Members

Project leader:	Associate Professor Marion Mitchell (GU)
Project team:	Associate Professor Pauline Glover (FU) Associate Professor Michele Groves (GU) Professor Amanda Henderson (GU) Ms Carol Jeffrey (GU Project Officer) Ms Michelle Kelly (UTS) Professor Sabina Knight (MICRRH JCU) Associate Professor Duncan Nulty (GU)
Reference group:	Professor Patrick Crookes (UOW) Professor Deborah Murdoch-Eaton (Leeds U. UK) Professor Debra Nestel (Monash University)
External evaluator:	Professor Brian Jolly (University of Newcastle)

Qualifications and background of the researchers, reference group and external evaluator appear in Appendix C.

1.5 Aims of the Project

1.5.1 Overall Aim of the Project

The aim of this project was to develop a framework to guide the implementation of the Best Practice Guidelines within OSCEs to support their broad utilisation within nursing and midwifery studies.

1.5.2 Specific Aims

1. Develop an implementation framework to integrate Best Practice Guidelines in nursing and midwifery curricula.
2. Trial and evaluate the Best Practice Guidelines across a broad range of diverse educational settings.
3. Develop a learning, teaching and feedback resource to use in conjunction with the framework.

1.6 The Significance of the Project

There is little evidence available on how OSCEs are integrated with clinical nursing and midwifery courses and how they can be used as feedback to direct learning. Successful completion of this project supports the significant potential for wide spread and long term change in the use of OSCEs to enhance student learning. As the project was conducted Australia-wide it has provided guidance to project site academics on how they can incorporate OSCE BPGs into their curricula to benefit student outcomes. The diverse and structured project dissemination strategies will further support broad utilisation of the BPGs for OSCEs. In Australia there are 36 institutions delivering nursing and/or midwifery programs. As a practice profession, nursing and midwifery requires valid and reliable assessment of students' clinical skills that ensures safe clinical practice. There is an ongoing need for sound clinical assessment of fundamental nursing and midwifery skills to maximise clinical practice opportunities.

2. Considerations prior to evaluation of OSCEs by the BPGs

As part of the process of evaluating the BPGs in each of the four sites, it was evident that assumptions underlie understanding and interpretation of the concept of OSCEs. These assumptions are described by the five OSCE pre-considerations listed below. These five pre-considerations acknowledge that OSCEs do not exist in isolation and are embedded in each curriculum and as such need to be considered prior to implementation.

2.1 Five OSCE pre-considerations

These include the design of the course; preparation of staff; engagement of students; student performance and feedback; and ongoing OSCE review and refinement.

2.1.1 Course Design

Multiple aspects of the design of the course require consideration. These include the following six points:

- The placement of OSCEs within courses and their coherence within the curriculum,
- Clear learning objectives for OSCE,
- Study guide (or similar) tailored to the objectives of the OSCE,
- Assessment consistent with teaching method,
- Learning outcomes and assessment to be achievable for year level, and
- Adequate Academic and teaching resources (including physical surroundings and equipment).

2.1.2 Staff Preparation

The OSCE process requires staff to be engaged to promote active student participation in their learning. Components of this process are:

- Staff well prepared with teaching and assessor team 'on the same page',
- Clear instructions and understanding by the team on the OSCE teaching and assessment processes,
- Good Teacher/student/clinician relationships, and
- Clear instruction to students.

2.1.3. Student Engagement

This consideration details how evaluation needs to be built into the entire process of the OSCE. Evaluation of the OSCE and its processes may include some or all of the following:

- Satisfaction (students and staff),
- Staff perceptions of relevance, usefulness, students' competence, confidence and ability,
- Students' perceptions of OSCE (relevance, usefulness, self-efficacy, ability and confidence), and
- Characteristics of students' learning outcomes that note changes/improvements.

2.1.4. Performance and Feedback

Student performance in preparing for and enacting an OSCE is dependent on the following aspects of a well constructed OSCE that:

- Provides meaningful clinical interaction,
- Allows for students to engage in teamwork as demonstrated in laboratories/simulation setting,
- Promotes changes in student's study behaviour and learning outcomes as it engages students in relevant, contemporary clinical experiences that support their delivery of safe practice.

2.1.5. Ongoing OSCE Review and Refinement

It is essential that there is review of feedback to strive for engaging students to achieve best practice in this simulated environment.

This can be achieved by regular (yearly) refinement and review of the OSCE process and content to keep pace with changes in the health care system by:

- Critical OSCE review,
- Aligning with best clinical and teaching practices, and
- Engaging students in their learning.

3. Development of the BPG OSCE Evaluation Process

3.1 Overall Design of the Project

The project team consisted of a group of academics who utilised previously developed BPGs within four diverse sites. OSCEs were adapted to the students' learning needs at each site. The key activity of the project was the collaboration across the four sites and the application and evaluation of the BPGs at each site. Both collective and individual site's feedback and evaluations informed the processes, activities and strategies that comprise the implementation framework. The implementation framework guides the operation of the BPGs within OSCEs to a broad group of nursing and midwifery students.

Ethical approval was obtained at each of the sites prior to commencing the project (Appendix D).

3.2 Methodology

As mentioned above, the implementation framework was developed from the evaluation of the utilisation of the OSCE (based on the BPGs) in each of the four sites. The following considerations (Rushforth, 2007) were incorporated into the assessment of the utility of the BPGs in the diverse setting:

1. Context-reliant competence – measuring the student's knowledge, skills, attitudes and values in a context specific situation;
2. Competence versus performance – measuring the student's social, cultural, and professional skills in tandem with the undertaking of tasks;
3. Professional behaviour – measuring the student's professional behaviours including caring, empathy, and other interpersonal skills; and
4. Integration of skills – measuring the student's ability to integrate a range of knowledge and skills and to demonstrate these through planning, implementing and evaluating the care they give.

The data collection methods used to elicit the necessary feedback and evaluation of the BPGs was broad and included student surveys and focus groups, and staff semi-structured interviews at all four sites. A summary of the evaluation table appears in Appendix E. Further important areas of interest to clinical practice and safe patient care that were relevant to the OSCEs were in relation to students' perceived confidence and/or preparedness for clinical practice. This was incorporated into the students' feedback in relation to their particular OSCE learning and teaching process and its effect on their clinical practice.

3.3 Evaluation Strategy

Project evaluation occurred throughout the project and was tied closely to the above project methodology. The evaluation provided a range of inter-locking components, some designed to impact directly on project management, while others more specifically to elicit evaluative information. The following two phase design was employed to effectively compile the data and ensure that the project maintained momentum and the stated aims were achieved. This is also outlined as a timeline for the two year project in Appendix F.

Phase 1- Pre-implementation visit

There were four sites:

1. Flinders University, Adelaide
2. Centre for Remote Health (Alice Springs)
3. University of Technology, Sydney
4. Griffith University, Brisbane

The project leader and the project officer went to each site that constituted a pre-implementation visit (see Table 1 below). These visits included meetings with the site leader and key members of the teaching/academic staff conducting or teaching/assessing the content for the OSCE.

Table 1- Site Pre-implementation Visits, Courses, and Key Site Members

Site	Program & Course	Pre-implementation Visit	Key Site Members
Flinders University	<ul style="list-style-type: none"> • Under-grad - Bachelor or Midwifery • 1st year, 1st semester course 	June 2011	Associate Prof Pauline Glover Kristin Graham Sharon Rance
Centre for Remote Health	<ul style="list-style-type: none"> • Post-grad -Grad Dip Remote Area Nursing 	November 2011 & February 2012	Sue Lenthall Dr Robyn Aitken
University of Technology, Sydney	<ul style="list-style-type: none"> • Under-grad - Bachelor or Nursing • 1st year, 2nd semester course 	November 2011	Michelle Kelly Rebecca Disler
Griffith University	<ul style="list-style-type: none"> • Under-grad - Bachelor or Nursing • 1st year, 1st semester course 	September 2011	Bernadette Watson

This pre-implementation phase involved firstly the redesign of the course teaching methods and preparation for the OSCE. Secondly, the actual OSCE was altered in line with the BPGs. Thirdly, the student surveys, focus group and semi-structured interviews (conducted at each site) were individualised and made context-specific to be meaningful to the site teaching team and students. That is, some of the survey and focus group questions were varied to encompass the particular context and student groups (e.g. high fidelity simulation occurred at UTS versus peers as 'patients' at GU & Flinders, post-graduate remote area nurses versus undergraduate nursing and midwifery students). The intention of these questions was to elicit examples of demonstrated behaviours and perceptions from the students and teaching staff which evaluated each of the BPGs in specific contexts and varied situations. See Appendices F and G for samples of the student survey, student focus group questions and staff semi-structured interview questions. Appendix I outlines the consent process including the information sheets and consent forms used for both academic staff and students prior to data collection feedback.

Phase 2- Data collection

Following completion of Phase 1, the students and academics experienced the revised OSCE as part of their educational processes within the four courses. Upon completion of the OSCE, data collection commenced at each site according to their schedule. Those involved in teaching and assessing the OSCE had no part in any data collection to reduce researcher bias. Table 2 outlines the data collection timing.

Table 2-Site Data Collection

Site	Data Collection
Flinders University	December 2011
Centre for Remote Health	March/April 2012
University of Technology Sydney	May 2012
Griffith University	June/July 2012

Phase 1 and Phase 2 in particular, progressed according to the timeline and were well managed by having effective project member communication strategies. These were imperative to the ongoing management and delivery of project outcomes which were reliant on semester timings of the OSCEs within each course. If the team was not fully prepared for the OSCE period, data would not have been able to be collected as planned.

3.4 Communication Strategy

3.4.1 Project Team Communication

The communication strategy for the project was multifaceted and included regular emails, meetings (teleconferences and face-to-face meetings) and a central website developed at the host university (GU). This website was accessible to all eight project team members irrespective of their location and affiliation. It acted as a central repository for all project information and was managed by the project officer. All meeting agendas, minutes and project documents were stored on this website. Team communication was facilitated by the regularly scheduled meetings as detailed in Table 3 which were quickly followed by distributed written meeting minutes and action lists. Ad hoc email and telephone communication occurred regularly between these meetings and important information was subsequently disseminated to the entire team. In addition to Project Team meetings there were meetings with the reference group members.

Table 3-Project Team Meetings

Type of Meeting	Date of Meeting
Teleconference	26 th November 2010
Face to Face	22 nd February 2011
Teleconference	31 st March 2011
Teleconference	11 th May 2011
Teleconference	7 th June 2011
Teleconference	26 th August 2011

Teleconference	6 th September 2011
Teleconference	8 th December 2011
Face to Face	2 nd February 2012
Face to Face	23 rd -24 th August 2012
Teleconference	15 th October 2012
Face to Face	23 rd November 2012

3.4.2 Reference Group Communication

Regular communication with the reference group was paramount to ensure the project was developed and conducted in the best way possible to deliver outcomes commensurate with the aims of the overall project. These meetings occurred at important and strategic times in the project development. Generally, teleconferences were used with each Reference Group member with the project leader and project officer. Summaries were made of these communications and were collated into single feedback documents which were shared with all (Reference Group and Project Team members). Table 4 lists the specific meeting times – ad hoc emails were used between these dates.

Table 4- Reference Group Meetings

Type of Meeting	Date of Meeting
Teleconference- Individual Reference Group members	August 2011
Teleconference- Individual Reference Group members	February/March 2012
Teleconference or Face- to- Face Individual Reference Group members	August/September 2012

3.4.3 External Evaluator Communication

In addition to the Reference Group support and feedback, professional external evaluation was provided to the project team. Ellen Vasiliauskas (educational psychologist) was employed at the beginning of the project. Ms. Vasiliauskas provided direction in an early mapping of the project exercise (February 2011, face- to-face day meeting with the entire Project Team). This exercise provide immediate and substantial discussion as it drew out the many facets of OSCEs in regards to the various project members' individual contexts and was thus useful as a 'whole of team' activity. The brainstorming exercise successfully highlighted the various components of OSCEs and subsequent analysis assisted with identifying components that required exploration and assessment to ascertain the utility of our OSCE project.

As the project developed the team re-evaluated the requirements of the external evaluator. It was decided to engage a different external evaluator for the subsequent evaluation side of the project. This decision was made for the purpose to better meet the needs of the project as it moved forward. The new external evaluator is a specialist in teaching and learning and is better placed to provide specific input to the project. Professor Brian Jolly is eminent both nationally and internationally in teaching and learning in medical and nursing education. His evaluation plan is comprehensive and he is collecting data from a broad number of key stakeholders. His report and evaluation of the project is available at Appendix K.

4. Results and Discussion

4.1 Data Analysis

The mixed method provided both survey and interview data for analysis and a broad understanding of this complex teaching and learning strategy. Student survey data at each site were collected and analysed using the Statistical Package for the Social Sciences (Version 20). For student focus groups and academic interviews, field notes were made by a second team member. These notes were checked for accuracy at the time with the student cohorts and emailed to the academic/teaching staff to ensure data verification. Themes were generated from the focus groups and interview data, initially for each site, then across all sites. To better understand this qualitative data and to further verify the accuracy of the themes, they were contextualised in association with the site academic.

4.2 Site 1 - Flinders University- First Year Undergraduate Midwifery Students (n=36)

The purpose of this OSCE was as a summative assessment to evaluate the students' ability to perform the required patient care in a safe manner prior to students' first clinical practicum. The OSCE was at the end of semester in the examination period in the first semester of the first year of the Bachelor of Midwifery before clinical midwifery experience.

Data were collected in November and December in 2011 by the project leader, project officer and site project team member who was not involved in teaching or assessing for the course or OSCE.

The response rate for the student surveys was 94 percent (34 out of a possible 36). Thirteen students participated across three focus groups. Both staff involved in the teaching and evaluation of this course and OSCE were interviewed.

The students ranged from 18 to 42 years of age (median age=23.5 yrs) and all were female. Most of the students described themselves as mature age (n=17) with limited or no previous nursing experience in midwifery.

The following table outlines the themes that were developed from the open-ended question in the student survey, the three student focus groups and the OSCE staff interviews (course convenor and tutor). Each row in the table demonstrates a similar concept that has emerged from each data set.

Table 5 - Themes from Flinders University Staff & Students

Student Survey Question	Student Focus Group	Staff Semi-Structured Interview
<ul style="list-style-type: none"> • Good learning experience 	<ul style="list-style-type: none"> • Better way of learning with an OSCE • Makes sense to do an OSCE 	<ul style="list-style-type: none"> • Learning equals clinical outcomes
<ul style="list-style-type: none"> • Good assessment experience 	<ul style="list-style-type: none"> • Knowledge foundation • The iterative process of the OSCE • Clinical preparation 	<ul style="list-style-type: none"> • Combination marking guide for OSCE for novices • Assessment key to clinical outcomes
<ul style="list-style-type: none"> • Insufficient time for preparation 	<ul style="list-style-type: none"> • Preparation & anxiety • Extra preparation needed for OSCE process • Students own responsibility to practice 	<ul style="list-style-type: none"> • Preparation & practice is a student responsibility

<ul style="list-style-type: none"> • Inconsistency of process 	<ul style="list-style-type: none"> • Student acting out roles makes it less real-life & more difficult • Scenarios unequal – one harder than the other 	
<ul style="list-style-type: none"> • Inconsistency of Feedback 	<ul style="list-style-type: none"> • Important to have fairer feedback during & after OSCE 	<ul style="list-style-type: none"> • Feedback timing incongruent with students’ needs

The OSCE as it was utilised at Flinders for undergraduate students produced positive student and academic feedback. They considered that the particular scenarios were extremely relevant to their clinical practice and that they were well prepared for their imminent period in the maternity hospital.

4.3 Site 2 - Centre for Remote Health- Postgraduate Remote Area Nurse Students (RANs) (n=15)

The purpose of this OSCE was for formative assessment and learning in a small postgraduate cohort to increase their skills and confidence prior to remote clinical placement. The OSCE occurred in the middle (week 6 of 13) of a semester long course at the end of a two week residential intensive block. Much of the course content had been delivered by this time.

Data were collected in April 2012 by the project leader and project officer. All students completed the survey (n=15). Thirteen of these participated in two focus groups. All five staff involved in evaluating the students’ OSCE were interviewed.

The students were older than seen in the Flinders BM course. These post-graduate RAN students were from 23 to 60 years of age (median age = 35yrs) with four males and 11 females. There was a broad range of experience working as a remote area nurse with three students currently practising as RANs and two having experience that ranged from 2.5 years to 7.25 years. The remaining students worked in a range of other nursing roles from around Australia including emergency departments, acute sector hospitals and community health.

The following table outlines the themes that were developed from the open-ended question in the student survey, the three student focus groups and interviews with all possible staff (five). Each row in the table demonstrates a similar concept that has emerged from each data set.

Table 6 -Themes from Centre for Remote Health Staff & Students

Student Survey Question	Student Focus Group	Staff Semi-Structured Interview
<ul style="list-style-type: none"> • Good learning experience 	<ul style="list-style-type: none"> • Logical sequence for learning • Valuable learning tool 	<ul style="list-style-type: none"> • Variability of role playing changes the experience • Integration at the right time • Required to integrate new knowledge quickly
<ul style="list-style-type: none"> • Feedback is important 	<ul style="list-style-type: none"> • Consistent amounts of feedback important 	<ul style="list-style-type: none"> • Feedback structure & timing important
<ul style="list-style-type: none"> • Transition from RN to RAN is difficult 	<ul style="list-style-type: none"> • Principle underpinning OSCE is “gold standard for RAN” • Current skills may not match RAN skills 	<ul style="list-style-type: none"> • Assessment of principle underpinning OSCE may be premature for stage of learning • Varied student capability

Even though the OSCE at this site was formative in nature the students indicated that it stimulated their learning and sense of achievement. Tutors were receptive to the OSCE changes and inclusion of additional educational considerations that resulted in improved OSCE development.

4.4 Site 3 - University of Technology Sydney- First Year Undergraduate Nursing Students (n=457)

The purpose of this OSCE was formative to consolidate learning in a group/team high fidelity simulation environment. The OSCE occurred half way through a semester long course, in a week deemed 'Simulation week' in the first semester of the first year of a Bachelor of Nursing prior to any clinical nursing experience.

Data were collected in May 2012 by the project leader, project officer and the site project team member who was not involved with the course or OSCE. At this site the student survey was conducted by Survey Monkey™ due to the large student numbers (n=457) and the ability for students to access computers. Eighty percent of students (n=367) returned the surveys. Of these 47 students participated across four focus groups at both of the UTS campuses. Four staff interviews were conducted and included the course convenor and three teaching staff.

The students' ages ranged from 17 to 50 years of age (median age=21 years) with 14 percent identifying as male and 86 percent as female. A large proportion of these students were international students (37 percent), and recent 32 percent school-leavers.

The following table outlines the themes that were developed from the open-ended question in the student survey, the three student focus groups and four staff interviews. Each row in the table demonstrates a similar concept that has emerged from each data set.

Table 7- Themes from UTS Staff & Students

Student Survey Question	Student Focus Group	Staff Semi-Structured Interview
<ul style="list-style-type: none"> Supportive and responsive 	<ul style="list-style-type: none"> Teamwork Knowing what to do and say Knowing OSCE (simulation) 	<ul style="list-style-type: none"> Authentic practice
<ul style="list-style-type: none"> Preparation for practice 	<ul style="list-style-type: none"> Skill capability and knowledge level 	<ul style="list-style-type: none"> Students piece the process together Performance level equalled student cohort/background
<ul style="list-style-type: none"> Positive learning strategy 	<ul style="list-style-type: none"> OSCE (simulation) placement was well designed Commensurate with program design Built on other information so it reduced stress Reflecting for future practice-ways to communicate 	<ul style="list-style-type: none"> Mistakes were learning experiences Undecided assessment Informed by this performance
<ul style="list-style-type: none"> Assessable nature of OSCE (simulation) 	<ul style="list-style-type: none"> Variable feedback (for/against) 	<ul style="list-style-type: none"> Debriefing where the learning is solidified
<ul style="list-style-type: none"> Need more practice 	<ul style="list-style-type: none"> Commencing encounters (Key points of focus- start and stop points and communication) 	<ul style="list-style-type: none"> Motivation closer to OSCE

This OSCE was a formative assessment which allowed for a process whereby each student did not experience 'playing' the role of the nurse. This was a fundamental limitation on the OSCE process independent of the BPGs. Students were very positive regarding the benefit of OSCEs within their program.

4.5 Site 4- Griffith University- First Year Undergraduate Nursing Students (n= 183)

The purpose of the OSCE was a summative assessment to assess if the students were able to adequately perform a head to toe systematic assessment of a healthy adult in a safe and confident manner. The course is in the first semester of the first year of the Bachelor of Nursing, prior to any clinical practice.

Data were collected in June/July 2012 by the project leader and project officer. There were 183 students enrolled in the course and of this 141 students completed the survey (77 percent response rate). There were three focus groups conducted with 18 students. Three staff interviews were conducted including the course convenor and two teaching staff.

This student cohort had a similar median age as seen in the other sites involving undergraduate students (UTS and Flinders BM). The students' ages ranged from 17 to 58 years of age (median age = 20yrs). Eleven percent was male and 89 percent were female. There were a similar number of students in the mature-age (43 percent) and recent school-leaver (41 percent) groups.

The following table outlines the themes that were developed from the open-ended question in the student survey, the three student focus groups and three staff interviews. Each row in the table demonstrates a similar concept that has emerged from each data set.

Table 8- Themes from Griffith University Staff & Students

Student Survey Question	Student Focus Group	Staff Semi-Structured Interview
<ul style="list-style-type: none"> Feedback important 	<ul style="list-style-type: none"> Feedback varied & students' perceptions of feedback varied 	<ul style="list-style-type: none"> Multiple feedback avenues
	<ul style="list-style-type: none"> No shock from OSCE Holistic OSCE OSCE ties it together 	<ul style="list-style-type: none"> Scripted OSCE work well
<ul style="list-style-type: none"> Time of Assessment 	<ul style="list-style-type: none"> Focus on what was to be examined 	<ul style="list-style-type: none"> Timing of release
<ul style="list-style-type: none"> Real-life 	<ul style="list-style-type: none"> Good for real-life nursing Need to perform in the OSCE Preparation for Practice 	<ul style="list-style-type: none"> OSCE good and authentic High pressure situation Implications for clinical practice
<ul style="list-style-type: none"> Positive Teaching 		<ul style="list-style-type: none"> Marking guide helpful/meaningful

This site had been using the BPGs for some time; consequently, minimal changes were required. They remained relevant and an acknowledged asset to student learning in preparation for practice.

In summary, the research team achieved high participation levels across all four sites. In total, 691 students participated in the revised OSCEs. Of these students 557 (80 percent) completed the OSCE survey. There were 91 students who participated in focus groups (across the four sites) and 14 staff were interviewed. The academics actively engaged with the BPGs and were responsive to their intent. There was overall agreement and understanding of the contribution each site made to further develop their original OSCE.

The participation of a very high percentage of the key stakeholders (students, academics and teaching staff) in the OSCEs and their evaluation, allows the research team to confidently state that the project outcomes can be generalised to the broader perspective of nursing and midwifery students.

5. Re-development of the BPGs

5.1 The Process of the BPGs' re-development

As the project evolved so did the BPGs. The BPGs had previously been trialled at one site – the host university, GU SONM. As project team members reflected on the OSCEs with the application of the BPGs in the diverse settings with different student cohorts, the BPGs began to evolve. Section 5.2 outlines the evolution of the BPGs.

5.2 Re-development of the BPGs

The following table displays the redevelopment of the BPGs throughout this project.

Table 9- The process of BPG re-development in this Project

Original BPGs as published in Nulty et al., 2011	Modified and Tested BPGs in this project	Final BPGs December, 2012
1. Practice related directly to the delivery of safe client/patient care.	1. Practice related directly to the delivery of <u>safe client/patient centred care.</u>	1. Practices which are most likely to be commonly and/or significantly encountered.
2. Practices which are most relevant to OSCE learning and assessment and likely to be commonly encountered in clinical practice.	2. Practices which are most relevant to OSCE learning and assessment and likely to be <u>commonly and/or significantly</u> encountered in practice.	2. Knowledge, attitudes and skills which are most appropriately learned and assessed through OSCEs.
3. Be judged via a holistic marking guide to enhance both the rigor of assessment and reliability. (This allows judgements of students' performance to be related to clinical practice as a whole, rather than as a collection of discrete independent actions.)	3. Be judged via a holistic marking guide to enhance both the rigor of assessment and reliability. (This allows judgements of students' performance to be related to clinical practice as a whole, rather than as a collection of discrete independent actions.)	3. Be structured and delivered in a manner which aligns directly with mastery of desired knowledge, attitudes and skills.
4. Require students to perform tasks in an integrated rather than piecemeal fashion by combining assessments of discrete skills in an authentic manner	4. Require students to perform tasks in an integrated rather than piecemeal fashion by combining assessments of discrete skills in an authentic manner	4. Be appropriately timed in the sequence of students' learning to maximise assimilation and synthesis of disparate course content and to minimise the possibility that students adopt a piecemeal, superficial learning approach.
5. Be structured and delivered in a manner which aligns directly with mastery of desired knowledge and skill. This alignment should be both internal to the course and (in keeping with #2) aligned prospectively with clinical tasks likely to be encountered.	5. Be structured and delivered in a manner which aligns directly with mastery of desired knowledge and skill. This alignment should be both internal to the course and (in keeping with #2) aligned prospectively with clinical tasks likely to be <u>commonly and/or significantly</u> encountered in practice.	5. Be judged via a holistic marking guide to enhance both the rigour and reliability of assessment.

6. Be appropriately timed in the sequence of students' learning to maximise assimilation and synthesis of disparate course content and to minimise the potential for students to adopt a piecemeal, superficial learning approach.	6. Be appropriately timed in the sequence of students' learning to maximise assimilation and synthesis of disparate course content and to minimise the potential for students to adopt a piecemeal, superficial learning approach.	6. Require students to perform tasks in an integrated rather than piecemeal fashion by combining assessments of discrete skills in an authentic manner.
7. Allow for ongoing practice of integrated clinical assessment and intervention skills, thereby also ensuring the appropriate and timely use of feedback to guide students' development.	7. Allow for ongoing practice of integrated clinical assessment and intervention skills <i>in a safe supportive environment</i> , thereby ensuring the appropriate and timely use of feedback to guide students' development and ongoing reflection.	7. Knowledge, attitudes and skills related directly to the delivery of safe patient-centred care.
		8. Allow for ongoing practice/learning of integrated clinical assessment and intervention skills in a secure supportive environment, with appropriate and timely feedback to guide students' development and ongoing reflection.

The next section, 5.3 details the subsequent and newly developed BPGs with their educational and practical underpinnings developed during this two year project.

5.3 Educational principles and practical outcomes for BPGs in the development of OSCEs

BPG 1. Practices which are most likely to be commonly and/or significantly encountered

Educational principles: Promote the *authenticity* (Biggs & Tang, 2011) of assessment and the *alignment* (Biggs & Tang, 2011) between assessment method and desired learning outcomes.

Practical outcomes: Avoids the use of OSCEs for the assessment of practices that are rarely encountered. Improves students' 'sense of purpose' and therefore also their motivation and engagement in learning the most common and significant practices. Axiomatically, this leads to improved learning outcomes.

BPG 2. Knowledge, attitudes and skills which are most appropriately learned and assessed through OSCEs

Educational principles: Promote the *authenticity* and *validity* of assessment (Biggs & Tang, 2011; Newstead, 1992).

Practical outcomes: The use of OSCEs is reserved for assessing learning outcomes that can only be assessed, or are best assessed, by OSCEs. Overall efficiency of assessment is improved by ensuring that learning outcomes that can be assessed with other methods of assessment are assessed with those methods. This avoids wasting time and resources that are required for assessments including OSCEs. Assessment of skills is enhanced by using superior methods of assessment.

BPG 3. Be structured and delivered in a manner which aligns directly with mastery of desired knowledge, attitudes and skills

Educational principles: Ensure the OSCE has a *constructive, and sequenced* (Biggs & Tang, 2011; Stefani, 2003; Joseph & Juwah, 2012; Meyers & Nulty, 2009), pedagogical intent consistent with the application of learning theory (Marton, Hounsell & Entwistle, 1984; Piaget, 1950).

Practical outcomes: Students' learning is supported in a logical, progressive, developmental sequence that scaffolds learning in a manner that is consistent with the way students learn.

BPG 4. Be appropriately timed in the sequence of students' learning to maximise assimilation and synthesis of seemingly disparate course content and to minimise the possibility that students adopt a piecemeal, superficial learning approach

Educational principles: As for BPG3: but in addition, ensure that the OSCE is placed within a course-long learning strategy in a way that recognises (and mitigates) the potential for students (and teaching staff) to engage in *strategic* approaches to learning (instead of deep approaches) (Nulty et al., 2011).

Practical outcomes: Students' learning is supported in a logical, progressive, developmental sequence that scaffolds learning in a manner that is consistent with the way they learn – and which specifically demands students and staff engage in learning and teaching behaviours that promote the achievement of deep learning outcomes. Avoids teaching behaviours that might be regarded as 'coaching for the test' – which would clearly lead to learning outcomes of a lower value.

BPG 5. Be judged via a holistic marking guide to enhance both the rigour and reliability of assessment

Educational principles: Promote *fidelity* (Sadler, 2010), *integrity* (Sadler, 2009a) and (consequently) *validity* of marking and grading outcomes. Avoid problems of *indeterminacy* (Sadler, 2009b) in assessment.

Practical outcomes: Improvements will be seen in the rigor and reliability of assessment. It legitimises the use of academics' expert judgements as an appropriate way to evaluate the integrated performance of students' multiple skills used in OSCEs (as approximations to real scenarios). It helps to promote the development of more sophisticated judgements by students themselves in the shared quest to help them become expert judges of their own performances in keeping with self-managed professional practice.

BPG 6. Require students to perform tasks in an integrated rather than piecemeal fashion by combining assessments of discrete skills in an authentic manner.

Educational principles: Enhance *authenticity* and *validity* of assessment. It *scaffolds* (Biggs & Tang, 2011) learning achievements by the use of tasks that more closely mimic skill-sets that will be used in actual practice (Mitchell et al., 2009). Combining patient assessments promotes a teaching strategy that develops authentic skills (Biggs & Tang, 2011), and *student engagement* (Chickering & Gamson, 1987).

Practical outcomes: The nature of students' study behaviours and teachers' teaching behaviours focuses more purposefully upon the development of skills that graduates will actually require, in the *integrated* form actual practice entails. This is done in a progressive manner that supports and engages students, and helps to bring valued and appropriate learning outcomes of a sophisticated and professional kind.

BPG 7. Knowledge, attitudes and skills related directly to the delivery of safe patient-centred care

Educational principles: Enhance *authenticity* and *validity* of assessment. Ensure that the assessment regime as a whole includes assessment that relates to the evaluation of those aspects of learning that are most important and most valued, and is appropriately weighted to recognise and reward those aspects. Use assessment *for* learning, as well as *of* learning (Norton, 2003).

Practical outcomes: This ensures this vital aspect of practice (safe patient-centred care) is explicitly included in students' learning and assessment – and is not inadvertently 'taken for granted'. Students learn that the delivery of safe patient-centred care is not only about the more obvious need to ensure the *patients'* safety (and the skills needed to deliver this), but also the need to protect *their own* safety in the interests of sustaining their capacity to provide care.

BPG 8. Allow for ongoing practice/learning of integrated clinical assessment and intervention skills in a secure supportive environment, with appropriate and timely feedback to guide students' development and ongoing reflection

Educational principles: There is a need to space skills learning over time, in a manner that is repeated, and properly sequenced to advance from low to high levels of learning (Romiszowski, 1999). By *scaffolding* learning in a *progressive* and *constructively aligned* manner it matches the most appropriate sequence of students' learning (Biggs & Tang, 2011).

Practical outcomes: Teaching is organised according to the most appropriate progression of students' learning. Student learning experience is improved and appropriately supported. Students learn more easily, faster, and achieve better outcomes.

6. Implementation Framework for the BPGs:

The Four Os - **O**ptimism, **O**rganisation, **O**versight and **O**utcomes

6.1 Discussion of Implementation Framework

The following Table 10 in 6.2 outlines the framework used to guide the integration of the now re-developed BPGs within nursing and midwifery curricula. This framework outlines the stages needed to implement the BPGs into an OSCE that has taken into account all of the aforementioned pre-considerations. The table lists the BPGs, the importance each hold for student learning and the stages of implementation. These stages we have termed the Four Os include; **O**ptimism, **O**rganisation, **O**versight and **O**utcomes. The framework provides the linkage between the BPGs and the importance for student learning.

6.2 BPGs Implementation Framework for OSCEs: The Four Os

Table 10 – BPG Implementation Framework for OSCEs – the Four Os

Best Practice Guideline	Importance for student learning	Implementation – Using the Four Os
1. Practices which are most likely to be commonly and/or significantly encountered.	Students are motivated to engage because the OSCE is based on practical situations in the clinical setting.	<u>OPPORTUNITY</u> Staff welcome the opportunity to provide students with structured learning and assessment that mimics the real world.
2. Knowledge, attitudes and skills which are most appropriately learned and assessed through OSCEs.	Through participating in the OSCE students are exercising cognition; they are not merely performing rituals.	Students are better able to reach the requisite outcomes through participating in clinically relevant learning and assessment activities.
3. Be structured and delivered in a manner which aligns directly with mastery of desired knowledge, attitudes and skills.	When students are presented with information and tasks in an ordered fashion they are less likely to be bewildered but rather more readily make the intended connections of knowledge with practice.	<u>ORGANISATION</u> There are conceptual challenges in structuring the stages needed to guide students learning proposed in the OSCE. The concepts inherent in the OSCE need to align with the curriculum.
4. Be appropriately timed in the sequence of students' learning to maximise assimilation and synthesis of seemingly disparate course content and to minimise the possibility that students adopt a piecemeal, superficial learning approach.	The appropriate timing further assists the student to integrate knowledge. The timing, particularly informing them of what is expected during the OSCE can assist with synthesis. The student is less likely to feel overwhelmed.	Further to the challenge of curriculum alignment many organisational hurdles need to be overcome for example, time-tabling of learning sequence, extra staffing, scheduling of the OSCE in relation to other relevant courses/unit/subject and clinical experiences.

Best Practice Guideline	Importance for student learning	Implementation – Using the Four Os
5. Be judged via a holistic marking guide to enhance both the rigour and reliability of assessment.	A marking guide that is not overly prescriptive but rather provides cues for the assessor can positively influence students approach; students are not pre-occupied with learning procedures <i>per se</i> but rather demonstrating evidence of thinking.	<u>OVERSIGHT</u> Provision of academic assistance in criteria for assessment, and the organisation and guidance to the assessment team (for both formative & summative assessment) are essential for a comprehensive and valid evaluation of performance.
6. Require students to perform tasks in an integrated rather than piecemeal fashion by combining assessments of discrete skills in an authentic manner.	Students approach the OSCE as an actual scenario that requires demonstration of their understanding through their composite actions, that is, not determined by 'one specific act'.	Professional support, possibly in the form of focused discussion, can improve grade integrity, that is, greater transparency in the marking that takes into account more nuanced practices such as professional behaviours.
7. Knowledge, attitudes and skills related directly to the delivery of safe patient-centred care.	Such highly relevant content motivates students and enhances the quality of their learning.	<u>OUTCOMES</u> Through this practice students gain confidence as they are able to both feel safe and provide 'safe' care in subsequent clinical encounters.
8. Allow for ongoing practice/learning of integrated clinical assessment and intervention skills in a secure supportive environment, with appropriate and timely feedback to guide students' development and ongoing reflection.	On-going practice and reflection contributes to students increased awareness and insight into their own practice, self-reflection on their own ability, and improvement in their self assessment (of particular significance for safety issues).	Improved ability to perform nursing practice and to self assess performance enhances student provision of care as they continually re-evaluate their practice.

7. Summary of Achieved Project Outcomes

7.1 Factors critical to success of the Project

One factor critical to the success of this project was the ability to regularly engage with all project members as they come from a wide geographical area including three states and one territory. All members frequently stated they felt engaged with the project and had equal opportunities for input. This has been achieved through regular meetings, with achievable agendas and precise minutes with action points. Follow-up on action lists was an important factor as all team members lead very busy lives that demand balancing priorities, one of which was the successful progression of this project.

Another factor was the early organisational procedures put in place. These have assisted with progressing and successfully completing the project on time. This has included utilisation of a website ('Teampplaces') provided by the host institution, GU, which enabled the project to have a repository of all necessary documents in one place for the entire team to access.

One other critical success factor was how data collection was tightly planned and co-ordinated. This was imperative as the project had to fit with teaching semesters and the timing of the OSCEs at each of the four sites. The multifaceted data collection with evaluations from both students and staff meant timing was crucial. This was particularly relevant for the Centre for Remote Health, Alice Springs as the postgraduate students who were to be part of the project were only available for a short time during their two week intensive teaching period. These students were from all different parts of Australia; therefore, the timing for the survey and focus groups was imperative. Scheduling of the semi-structured interviews with the teaching/academic staff also had to be conducted at this time as the staff were not all based in Alice Springs. As a consequence of rigorous pre-planning, all data collection occurred as scheduled. In addition the high response rate for feedback is testament to the project team's commitment and positive data collecting strategies.

7.2 Factors that impeded success of the Project

7.2.1 First Year of the Project

Communication strategies required refining in the first year of the project due to the geographical locations of the project team. Initially an online computer based meeting manager was trialled, however, it was found to be more successful to agree on the next meeting as part of the agenda at each meeting. Some members' workplaces had firewalls that did not permit access to the web based meeting manager system, thus making the ability to respond difficult.

One of the original reference group members (Professor David Price) resigned from his position due to ill health. A new reference group member was recruited - Professor Debra Nestel who has brought a wealth of experience in the project with her extensive knowledge in the OSCE field.

Data collection at site 2, 3 and 4 was more tightly co-ordinated than was the case at site 1 as a result of a better understanding of the needs to prioritise the focus group timing to ensure student availability. Whilst the overall number of student participants in the focus groups at site 1 (FU) was acceptable (n =13 out of a possible 35), more planning was needed at the next three sites to capture the student cohort. This additional planning proved successful and adequate student numbers were maintained at all sites with focus groups scheduled around students' attendances at other program activities.

7.2.2 Second Year of the Project

It became apparent during the survey data collection that items 2 to 6 in the survey (Appendix G) may have confused students. However, it was decided to retain the survey items for consistency and question students in the focus group to ascertain their thoughts.

The project team at the February 2012 face to face meeting decided to appoint a different external evaluator for the second half of the project. The decision was made for the purpose to better meet the needs of the project as it moved forward. The new external evaluator was a specialist in teaching and learning and was better placed to provide specific input into the project. It was very pleasing that he immediately agreed to act as the project evaluator.

Professor Brian Jolly is eminent both nationally and internationally in teaching and learning in medical and nursing education. One of the project aims was to produce a framework useful to learning and teaching and Professor Jolly was well placed to give specific feedback in this area.

Coordinating a large geographically diverse and busy project team has presented challenges. However, project team members have shown their commitment to the project and prioritise where able, the needs of the project.

7.3 Project Team's Self-evaluation against stated outcomes

7.3.1 Project Team's Self-evaluation

The project team believes that the outcomes are yet to be fully realised as dissemination to a wider audience has begun with further dissemination planned for 2013. In relation to the key outcomes as stated below the italicised description under each outcome provides the project team's self - evaluation.

7.3.2 Project's Stated outcomes

The key outcomes centred on the capacity to add to the knowledge, understanding and development of best practice in teaching, learning and feedback techniques related to clinical practice. This was and will continue to be achieved through dissemination strategies such as: web site resources; workshops at four participating trial sites; relevant conferences; and journal publications. This knowledge will be specifically beneficial to enhancing nursing and midwifery curricula and may be applicable more broadly to other health professions using OSCEs. Specifically, this will be achieved through the following key outcomes:

1. A sustainable and flexible implementation framework for OSCEs Best Practice Guidelines that support students' preparation for practice.
Yes, this has been achieved see section 6.2 (Table 10) of this report. It is believed 'The Four Os' framework is adaptable to a wide range of academics and students preparing for practice.
2. Enhanced capacity of tertiary educators in nursing and midwifery courses and clinical supervisors in healthcare services to promote preparedness for practice.
Yes, the re-developed BPGs (see section 5.2) provide sustainable direction to the development and conduct of OSCEs to enhance students' preparedness for practice.
3. A strategic change within the systems of tertiary nurse education and clinical supervision in healthcare organisations, as well as greater recognition of their potential contributions.
This outcome is achievable but yet to be fully realised as dissemination of the BPGs implementation framework nationally continues. This will be achieved through further dissemination strategies as outlined in 7.4. Importantly, all trial sites are committed to

continuing with OSCEs in their new form and reference group members are actively contributing to the dissemination plans.

4. A transferable set of strategies and resources for the development and embedding of the Best Practice Guidelines to a diversity of tertiary education providers with undergraduate nursing and midwifery courses.

Yes, 'The Four Os' framework and re-developed BPGs is provided in a 'user friendly' resource – see Flyer for Dissemination in Appendix A (This flyer will be presented in a folded format for ease of use). In addition, project publications within both general and context specific journals provide further exemplars for nursing and midwifery colleagues.

7.4 Dissemination and communication of project outcomes

The following sections discuss the myriad of dissemination strategies that the project team is employing to achieve widespread communication of the achievements of this project to enhance OSCE development and implementation.

7.4.1 Local Site Workshops

Each site had a local dissemination workshop, Table 11 below lists the workshops, when they occurred, who presented and the number and description of attendees. Some of these were stand alone workshops and others were part of a day-long learning and teaching seminar day. The Workshop flyers are attached in Appendix J.

Table 11- Workshop Dates & Participants

Workshop Site	Date of Workshop	Presenters	Description of attendees
CRH Alice Springs	2 nd Oct 2012	Marion Mitchell Carol Jeffrey	n=24 - including nursing, midwifery, dentistry, remote practitioners, and psychologists
FU Adelaide	9 th Nov 2012	Pauline Glover	n=22- including a range of participants from the health faculty and clinical areas
UTS Sydney	14 th Nov 2012	Michelle Kelly	n=20 - including a range of participants from the health faculty and clinical areas
GU Gold Coast campus	28 th Nov 2012	Marion Mitchell Duncan Nulty Amanda Henderson Carol Jeffrey	n=27- including nursing, midwifery, dentistry, physiotherapy, exercise physiology, and psychologists

7.4.2 Dissemination by the Council of Deans of Nursing and Midwifery

This strategy was devised from a suggestion of a reference group member and will involve a project summary and the flyer depicting the Implementation Framework and re-developed BPGs (Appendix A) presented at the next meeting of the Council of Deans of Nursing and Midwifery Australia and New Zealand (CDNM) in March 2013. The CDNM represents the Deans and Heads of the Schools of Nursing and Midwifery throughout Australia and New Zealand. The aim of the CDNM is to ensure the maintenance of quality standards of university education for nurses and midwives. This process of dissemination will be facilitated by the Head of School of Nursing and Midwifery, GU, Professor Elaine Duffy. It is hoped that each dean will support the broader dissemination of the Implementation Framework to the appropriate academic staff within each university.

7.4.3 Incorporation into a National Teaching Module for Simulated Patients

The work of the project has been incorporated into the Victorian Simulated Patient Network (VSPN) module- "The Role of Simulated Patients in Assessments". The VSPN offers an online network for people interested in simulated patient teaching methodology. The website, to be launched in December 2012, will provide a repository of e-learning modules on simulated patient teaching methodology targeted at teachers, clinicians, program administrators and simulated patients. Registration on the site is free and open to all. The VSPN, funded through Health Workforce Australia (HWA), and led by Professor of Simulation Education in Healthcare, Debra Nestel (Project Reference Group Member), will be promoting the resources across Victoria and showcase the e-learning modules including reference to the project team's work on BPGs.

7.4.4 Distribution of BPG Implementation Framework through NHET-Sim website

The National Health Education and Training Simulation (NHET-Sim) website is funded as part of the Simulated Learning Environments Programs that Health Workforce Australia is undertaking as part of Hospital and Health workforce reform. NHET-Sim is designed to be accessed by anyone who currently or intends to use simulation (OSCEs) as an educational method to support the development of healthcare students and professionals.

Professor Debra Nestel recognises the worth of the project's BPGs and Implementation Framework as a resource and has offered to add to their dissemination via this website. It is envisaged that this website will reach over 6,000 clinicians from all healthcare disciplines and across both metropolitan and rural locations.

Website address: <http://www.nhet-sim.edu.au/>

7.4.5 Conferences

Table 11 outlines progress to date with abstract submission and acceptance for national and international conferences.

Table 12 - Conference Abstract Submissions

Conference Title	Date of Conference & Location	Abstract
Fifth International Clinical Skills Conference	Prato, Italy 19-22 May, 2013	Accepted- 20 minute oral presentation
International Council of Nurses: 25 th Quadrennial Congress	Melbourne, Australia 18-23 May, 2013	Accepted – 30 minute oral presentation
Sim Health 2013 "Crossing Boundaries"	Brisbane, Australia 16-19 September, 2013	Abstracts called for in February 2013
American Nurse Credentialing Centre- National Magnet Conference	Orlando, USA 2-4 October 2013	Abstract submission date to be advised
International Confederation of Midwives	Prague, Czech Republic 1-5 June 2014	Abstract submission date to be advised

7.4.6 Publication Plan

The table below outlines the publication plan for the project and the current state of each planned paper.

Table 13- Publication Plan for Project Outcomes

Publication Title	Targeted Journal	Current State of each Publication
1. "An implementation framework for using OSCEs in nursing & midwifery curricula".	Nurse Education Today	Paper submitted 17 th December 2012.
2. "The value of BPGs for OSCEs in a postgraduate program in a remote area setting".	Journal of Rural and Remote Health	Paper submitted 18 th December 2012.
3. "The value of Objective Structured Clinical Examination (OSCE) for Midwifery students' preparation for practice".	Women and Birth	Draft in progress
4. "At the crossroads: the intersection of OSCEs and simulations".	Simulation in Health Care	Draft in progress
5. "Best Practice Guidelines for OSCEs – an Australian national evaluation".	Nurse Education Today	Draft in progress
6. "Feedback for learning clinical skills: quality, quantity and timing".	Medical Teacher	Draft in progress
7. "The use of Good Practice Guidelines for setting, achieving and maintaining appropriate and consistent academic standards in Objective Structured Clinical Examinations".	Assessment and Evaluation in Higher Education	Draft in progress

Conclusions and Recommendations

8.1 Conclusions

Seven integrated Best Practice Guidelines (BPGs) were developed to inform their judicious use in OSCEs within educational programs by the project team of eight academics across four higher education institutions around Australia. OSCE pre-considerations were described and act as a pre-cursor for academics to explore further prior to embedding OSCEs within courses and programs.

This project implemented and evaluated these BPGs in four diverse metropolitan and remote settings with under-graduate and post-graduate students of nursing and midwifery. These sites were in Brisbane, Sydney, Adelaide and Alice Springs, thus providing a nationwide evaluation. Two sites used the OSCEs for formative student assessment and two for summative student assessment. One site had a high fidelity simulation setting, two others used student peers at 'the patient' and the last had actors as 'the patient'.

Across the four sites, 691 students participated in revised OSCEs. Post-experience surveys were completed by 557 students (response rate 80 percent); with 91 students providing further feedback through focus groups. Academics provided feedback via interviews.

Students' indicated OSCEs strongly supported their learning and preparation for clinical practice by providing authentic activities in an integrated manner. Teaching staff readily adapted and embraced the BPGs within their OSCEs' development, delivery and student assessment. They recognised and welcomed the theoretical components of the pedagogy underpinning each BPG as it supported their practice as teachers and students as learners.

The OSCEs that were revised according to the BPGs resulted in quality student preparation for workplace situations – thus achieving a key aim of the study. Another key project outcome was the Implementation Framework, developed to provide additional guidance to academic colleagues in how the BPGs improve student learning and how each guideline can be implemented by way of the **Four Os**. These include enhanced **O**pportunity, **O**rganisation considerations, the required **O**versight and important **O**utcome measures (see Appendix A).

The high participation rate from such varied learning and teaching environments supports the project team's claim regarding the transferable set of robust strategies and resources in the form of BPGs for OSCEs. Universally, the BPGs were shown to demonstrate success across the diverse tertiary nursing and midwifery student groups and programs.

This project has successfully trialled and as a consequence re-developed a set of eight BPGs to guide the development, teaching and assessment of OSCEs. The project has formulated an overall Implementation Framework to guide future use of the BPGs in other settings. A program of dissemination of the project strategies and resources has commenced and includes workshops and seminars, specialist and general nursing and midwifery conference presentation and peer reviewed journal articles.

The OSCEs assessed in this research (by evaluating student learning and academic input), were enhanced by utilising the BPGs. They provided both a theoretical and practical guide to increase the validity and reliability of student learning across a diverse set of four sites. OSCEs developed using the BPGs should be incorporated into nursing and midwifery curricula to enhance safe authentic clinical practice.

8.2 Recommendations

The recommendations fall into three distinct yet overlapping areas – education, practice and research.

8.2.1 Recommendations for education

This project has successfully shown the wide and varied use of OSCEs within both nursing and midwifery education. This included both under-graduate and post-graduate levels of attainment. It is therefore recommended that OSCEs with the BPGs and pre-considerations are introduced Australia wide throughout nursing and midwifery curricula where it is assessed to be of most value to student learning.

The additional value of having OSCEs for summative assessment needs to be weighed up against the educational purpose they serve. The emphasis of designing OSCEs that are relevant to clinical practice with a focus on safe delivery of care provided a sound foundation for curriculum design and gave students effective learning opportunities not available in the real world.

The pedagogical underpinnings of the Implementation Framework and the BPGs provides educators/academics with theoretical educational support to change current practice and initiate better OSCEs for student learning. This momentum needs to continue.

8.2.2 Recommendations for practice

The OSCEs developed, taught and assessed using the BPGs have been shown to provide effective learning opportunities from both the educator and student perspective. Consequently, their introduction for on-going learning for clinicians within clinical agencies is recommended. Already, OSCEs (using the BPGs) are being used in one large hospital as a tool to assess candidates applying for senior clinical roles in the Intensive Care Unit. This safe, valid, reliable and fair method of assessment of clinical ability has been positively received by both applicants and interview panel members. A peer-review publication has been accepted for publication in the Journal of Nursing Administration in regards to this innovative application of OSCEs for position selection.

8.2.3 Recommendations for research

One reference has been made above (see 8.2.2) to a broader utilisation of the OSCEs within the clinical area. This could be further expanded to core and advanced professional competencies so valued by the profession and professional accrediting bodies to ensure real-world important and strategic clinical practice is advanced. This broader application requires diligent and sound research methods to adequately evaluate the efficacy of such practice interventions.

The issue of student feedback and how it is managed with summative OSCEs (in particular) was an unresolved issue. This is an important area for further research as poor quality and inconsistent feedback will undermine the learning process.

This project has been limited to the areas of nursing and midwifery; however, a number of other health professions similarly need safe, valid, reliable and fair methods of clinical experience and assessment of clinical ability. It is therefore recommended that further research with OSCEs developed, taught and assessed using the BPGs occurs with other health professionals such as medicine, physiotherapy, dentistry and pharmacy.

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Appendix A – Flyer for Dissemination

Optimise your OSCE Use the Four Os



The Four Os brought to you by:

Associate Professor Marion Mitchell
 Professor Amanda Henderson
 Ms Carol Jeffrey
 Associate Professor Duncan Nulty
 Ms Michelle Kelly
 Associate Professor Pauline Glover
 Associate Professor Michele Groves
 Professor Sabina Knight



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The final report for this project is on the
 OLT website www.olt.gov.au

December 2012 ©

Optimise your OSCE

(Objective Structured Clinical Examination)

Use the Four Os



The Four Os utilise 8 Best Practice Guidelines trialed and developed as part of a national project funded by Office of Learning and Teaching (OLT) PP10-1786.

Best Practice Guideline	Importance for student learning	Implementation - Using the Four Os
1. Practices which are most likely to be commonly and/or significantly encountered.	Students are motivated to engage because the OSCE is based on practical situations in the clinical setting.	OPPORTUNITY Staff welcome the opportunity to provide students with structured learning and assessment that mimics the real world.
2. Knowledge, attitudes and skills which are most appropriately learned and assessed through OSCEs.	Through participating in the OSCE students are exercising cognition; they are not merely performing rituals.	Students are better able to reach the requisite outcomes through participating in clinically relevant learning and assessment activities.
3. Be structured and delivered in a manner which aligns directly with mastery of desired knowledge, attitudes and skills.	When students are presented with information and tasks in an ordered fashion they are less likely to be bewildered but rather more readily make the intended connections of knowledge with practice.	ORGANISATION There are conceptual challenges in structuring the stages needed to guide students learning proposed in the OSCE. The concepts inherent in the OSCE need to align with the curriculum.
4. Be appropriately timed in the sequence of students' learning to maximise assimilation and synthesis of seemingly disparate course content and to minimise the possibility that students adopt a piecemeal, superficial learning approach.	The appropriate timing further assists the student to integrate knowledge. The timing, particularly informing them of what is expected during the OSCE can assist with synthesis. The student is less likely to feel overwhelmed.	Further to the challenge of curriculum alignment many organisational hurdles need to be overcome for example, time-tabling of learning sequence, extra staffing, scheduling of the OSCE in relation to other relevant courses/unit/subject and clinical experiences.
5. Be judged via a holistic marking guide to enhance both the rigour and reliability of assessment.	A marking guide that is not overly prescriptive but rather provides cues for the assessor can positively influence students approach; students are not pre-occupied with learning procedures per se but rather demonstrating evidence of thinking.	OVERSIGHT Provision of academic assistance in criteria for assessment, and the organisation and guidance to the assessment team (for both formative & summative assessment) are essential for a comprehensive and valid evaluation of performance.
6. Require students to perform tasks in an integrated rather than piecemeal fashion by combining assessments of discrete skills in an authentic manner.	Students approach the OSCE as an actual scenario that requires demonstration of their understanding through their composite actions, that is, not determined by 'one specific act'.	Professional support, possibly in the form of focused discussion, can improve grade integrity, that is, greater transparency in the marking that takes into account more nuanced practices such as professional behaviours.
7. Knowledge, attitudes and skills related directly to the delivery of safe patient-centred care.	Such highly relevant content motivates students and enhances the quality of their learning.	OUTCOMES Through this practice students gain confidence as they are able to both feel safe and provide 'safe' care in subsequent clinical encounters.
8. Allow for ongoing practice/learning of integrated clinical assessment and intervention skills in a secure supportive environment, with appropriate and timely feedback to guide students' development and ongoing reflection.	On-going practice and reflection contributes to students increased awareness and insight into their own practice, self-reflection on their own ability, and improvement in their self assessment (of particular significance for safety issues).	Improved ability to perform nursing practice and to self assess performance enhances student provision of care as they continually re-evaluate their practice.

Appendix B – Original Seven Best Practice Guidelines

1. Practice related directly to the delivery of safe client/patient care.

The team needs to examine the OSCE, in particular the aspects of practice for patient care. The activity of the OSCE, rather than being focussed on a single body system, or clinical activity, should reflect the real clinical work when interacting with a client.

2. Practices which are most relevant to OSCE learning and assessment and likely to be commonly encountered in a clinical setting.

Activities that represent the work that nurses and midwives undertake regularly during normal practice are most appropriate for the subject of OSCEs. For example, patient assessment is increasingly being recognised as the task that is most poorly performed. This subsequently affects the quality of information communicated in accordance with professional practice, thereby increasing risks to patients.

3. A holistic marking guide to enhance both the rigor and reliability of the assessment.

This allows judgements of students' performance to be related to clinical practice as a whole, rather than as a collection of discrete independent actions. The marking guide should consist of a number of sub-scales which allocate marks to each area or component, while also allowing for a global judgement for the overall task; thereby improving both construct and concurrent validity. Inter-rater reliability is supported by organising discussions among assessors prior to, throughout and on completion of the OSCE examination period.

4. A Requirement that students to perform tasks in an integrated rather than piecemeal fashion by combining assessments of discrete skills in an authentic manner.

The OSCE should be structured to encourage students to focus on integrated rather than isolated assessment tasks, in order to give them the opportunity to view the patient in context, thus more accurately reflecting a real-life clinical setting (Rischbieth, 2006). This can be achieved through careful attention to the nature of the selected learning and assessment, through the marking guide, and through preparation of the examiners. Combined, these factors ensure that the task is approached and marked in an integrative fashion.

5. Delivery in a manner which aligns directly with mastery of desired knowledge and skill.

This alignment should be both internal to the course and aligned prospectively with clinical tasks likely to be encountered (in keeping with #2). Release of information to students about possible topics for assessment should occur further into the semester, in preference to the beginning of the course. This strategy allows students to develop a sound understanding of the discipline content prior to the release of possible topics designed to encourage them to integrate and synthesise their learning. Students should also be encouraged to practice the OSCE in the remaining weeks of semester.

6. Appropriate timing in the sequence of students' learning to maximise assimilation and synthesis of disparate course content and to minimise the potential for students to adopt a piecemeal, superficial learning approach.

The early release of information about the OSCE may detract from what would otherwise be an integrated sequence of constructing meaning for students one 'piece' at a time. An approach that ensures timely release of information facilitates *integration* and *synthesis* by students as they are provided with the 'big picture' and able to see how the information fits with this.

7. Allowance for practice of integrated clinical assessment and intervention skills, thereby also ensuring the appropriate and timely use of feedback to guide students' development.

The availability of extra guided sessions during the course is good education practice that supports students' learning through engagement with the learning outcomes of the course throughout the semester. Informal feedback during these sessions provides students with information about their strengths and weaknesses and areas for improvement.

Appendix C – Project Team

(1) Associate Professor Marion Mitchell (R.N., Grad. Cert. in Ed. (Higher Ed.), B.N. (Hon.), Ph.D.)

Position: Joint appointment – Principal Research Fellow - Griffith University and Princess Alexandra Hospital, Brisbane, Australia. Mitchell holds a joint appointment as a Principal Research Fellow with Griffith University (GU), School of Nursing and Midwifery and the Princess Alexandra Hospital, Brisbane, Australia. She has a background in health education and clinical critical care intervention research. She has successfully attracted over \$400,000 in learning and teaching projects. Mitchell led the pilot project with current GU team members that formed the foundation for this current project. Mitchell has collaborated on projects designed to improve on-line student learning; student retention; enhancing student involvement of curriculum evaluation; developing agentic learners through a clinical progression portfolio; and a project to promote graduate transition and lifelong learning for nurses. She has supervised research higher degree students in educational intervention studies. Mitchell has led curriculum development and is an assessor of university programs leading to registration for the Australian Nursing and Midwifery Accreditation Council.

(2) Professor Amanda Henderson has an extensive career in nursing education, research and leadership in both academic and clinical settings. She is a clinical academic title holder at Griffith University and Nursing Director, Education at the Princess Alexandra Hospital where she supervises education initiatives and directives across Metro South District comprising more than 5,000 nursing staff.

During 2010 she was appointed Discipline Scholar (Health) by the Australian Learning and Teaching Council. This work focused on the development of learning outcomes across 26 health disciplines. She is presently a Queensland Health Research Fellow. Her scholarship is focused on the establishment of clinical settings that promote learning in practice, including the development and utilisation of health care knowledge. She has 90 publications in international refereed journals, 10 book chapters and co-edited two books.

(3) Ms Carol Jeffrey is an early career nurse academic with extensive clinical experience and has recency of clinical practice and an understanding of the demands on the newly graduated registered nurse in the current health care climate. She brings experience of being part of the team for the pilot project and helped with the development and implementing of the OSCE as an assessment item. Jeffrey's experience with the OSCE will be invaluable in the support of our partner organisations as they develop and implement the Guidelines for their context.

(4) Associate Professor Duncan Nulty is an Associate Professor in the Griffith Institute for Higher Education at Griffith University. He has been a member of the pilot project team from the project's inception. His role has been in two primary domains. First, to provide expert input in relation to assessment practice, pedagogy and curriculum design. Second, to help design and manage the project evaluation strategy. He has a track record of successfully managing and completing large-scale university wide development projects and is nationally and internationally recognised for his expertise on institutional policy and practice in the assessment of student learning, and academic standards. He also has expertise in curriculum design, and the evaluation of educational programs including student evaluation of teaching. Currently he is providing strategic leadership on these matters through three large projects (two national). These focus on assessment practice and policy, and the development of consensus moderation practices which support comprehensive quality assurance of assessment standards.

The key characteristic of Duncan's work is that it is focused on leadership and institutional change in relation to strategic issues of institution-wide impact and significance. A core theme of his work is that it focuses on the development and achievement of high academic standards and outcomes – that is: educational quality enhancement. To do this, he provides leadership that builds capacity in the university's staff (academic and professional) and helps bring systemic change to practice that enhances the quality of students' experience and academic achievement.

(5) Associate Professor Michele Groves has held senior roles in faculties of medicine and health sciences education, including Director of Medical Studies and Deputy Head of Medicine at Griffith University and Associate Dean (Academic) for the Faculty of Health Sciences at the University of Queensland. She has a BSc in microbiology and biochemistry and worked for several years in a number of private and public healthcare settings before moving into academia and gaining a PhD in medical education. She has extensive experience in teaching and assessment of undergraduate medical students and in the development, implementation and assessment of integrated medical curricula. More recently, she has broadened this focus to embrace health sciences education in general. Her research interests are diverse and she has published in a number of areas including clinical reasoning, problem-based learning, medical student selection, clinical skills assessment and inter-professional education.

(6) Ms Michelle Kelly is a Senior Lecturer and the Director of Simulation and Technologies, Faculty of Health UTS. Kelly has varied experience in medical- surgical nursing and critical care nursing across clinical and educational roles. Over the last six years, teaching and learning focus has moved to the use of a wide array of simulation learning strategies for health care education. She is currently leading the integration of simulation and technologies across health curricula at UTS. Kelly has been involved in simulation development, course delivery and consultancy for simulation related government and higher education organisations across Australia, USA, New Zealand, Oman and the United Arab Emirates.

(7) Associate Professor Pauline Glover is the Course Coordinator (Midwifery Programs) in the School of Nursing and Midwifery, at Flinders University in Adelaide. Her research and teaching interests include Midwifery education, practice and competency development; clinical teaching and support.

(8) Professor Sabina Knight is the head of the Mount Isa Centre for Rural and Remote Health (MICRRH) with broad experience in health professional education and undergraduate and postgraduate levels, particularly in the context of remote and Indigenous health. She draws on a lifetime career of remote area nursing and advocate for remote and rural health; she is a recognised leader in remote health and health professional education and has a keen interest health and social justice issues and health system reform.

Reference Group

(1) Professor Patrick Crookes -Dean of the Faculty of Health and Behavioural Sciences and Head of the School of Nursing, Midwifery and Indigenous Health at the University of Wollongong, NSW. He is a registered nurse in both the UK and Australia. Professor Crookes is a highly experienced educator. He is currently undertaking a project funded by the ALTC, to devise a clinical assessment tool for use in pre-registration nursing programs across Australia.

(2) Professor Debra Nestel- is Professor of Medical Education, Gippsland Medical School (GMS), Monash University, Australia. Over the last thirty years, she has worked at the University of Hong Kong and Imperial College London. In 2008, Debra joined GMS where she is responsible for educational research. She is leading a research team that is exploring the development of professional identity in medical students. Her other research interests include the role of simulation in supporting learning, particularly in procedural and operative skills. Debra pioneered the concept of patient-focused simulation (PFS) with her colleague Roger Kneebone. In PFS, a simulated patient and simulator model (urinary catheterization, suture pad etc) are 'combined' in a simulated environment in order to provide a learner-centred experience. The approach has been adopted internationally for teaching, learning and assessing procedural skills in undergraduate medical education.

(3) Professor Deborah Murdoch-Eaton - Professor of Medical Education, Consultant Neuropaediatrician, Leeds University UK. In 2004 Professor Murdoch-Eaton was awarded a national teaching fellowship by the Higher Education Academy, UK. Her research interests include investigation of the skills that underpin effective student learning and the attainment of generic skills.

External Evaluator

Professor Brian Jolly BSc (Hons), MA (Education), PhD, Professor of Medical Education, Health Workforce Education and Assessment Research Team, Faculty of Medicine, Nursing & Health Sciences, Monash University. Professor Brian Jolly has longstanding interests and expertise in simulation, assessment, clinical teaching, clinical skills development, and research design and statistics. Brian's current responsibilities include the development of research initiatives in health professions education, contributions to the Graduate Certificate in Health Professionals education (which trains clinical teachers), assisting in the development of undergraduate assessment protocols and fitness to practise initiatives. Brian has over 30 years experience in medical education.

Brian is the Chair-elect of ASSH, a member of the Medical School Accreditation Committee (MedSAC) of the Australian Medical Council and a co-author of the revised Australian Curriculum Framework for Junior Doctors. He has edited three books on medical education, and has contributed to over 130 papers on health professions education. He has recently been part of teams awarded two DEEWR grants for development of assessment strategies in nursing and dietetics education.

Appendix D – Ethics Clearances

GRIFFITH UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE

23-Jun-2011

Dear Ms Jeffrey

I write further to the additional information provided in relation to the provisional approval granted to your application for ethical clearance for your project "An Implementation framework for OSCE 'Best Practice Guidelines' designed to improve nurse preparedness for practice." (GU Ref No: NRS/12/11/HREC).

The additional information was considered by Office for Research.

This is to confirm that this response has addressed the comments and concerns of the HREC.

Consequently, you are authorised to immediately commence this research on this basis.

The standard conditions of approval attached to our previous correspondence about this protocol continue to apply.

Regards

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At this time all researchers are reminded that the Griffith University Code for the Responsible Conduct of Research provides guidance to researchers in areas such as conflict of interest, authorship, storage of data, & the training of research students.

You can find further information, resources and a link to the University's Code by visiting

<http://www62.gu.edu.au/policylibrary.nsf/xupdatemonth/e7852d226231d2b44a25750c0062f457?opendocument>

Flinders University and Southern Area Health Service (Includes Centre for Remote Health Alice Springs)

SOCIAL AND BEHAVIOURAL RESEARCH ETHICS COMMITTEE

Research Services Office, Union Building, Flinders University

GPO Box 2100, ADELAIDE SA 5001

Phone: (08) 8201 3116

Email: human.researchethics@flinders.edu.au

FINAL APPROVAL NOTICE

Principal Researcher: A/Prof Pauline Glover

Email: pauline.glover@flinders.edu.au

Address: School of Nursing & Midwifery,

Project Title: An Implementation framework for OSCE 'Best Practice Guidelines' designed to improve nurse and midwives preparedness for practice. Two year project.

Project No.: 5295

Final

Approval

Date:

4 July 2011 Approval

Expiry Date: 31 May 2013

The above proposed project has been approved on the basis of the information contained in the application, its attachments and the information subsequently provided.

If you have any outstanding permission letters (item D8), that may have been previously requested, please ensure that they are forwarded to the Committee as soon as possible. Additionally, for projects where approval has also been sought from another Human Research Ethics Committee (item G1), please be reminded that a copy of the ethics approval notice will need to be sent to the Committee on receipt.

In accordance with the undertaking you provided in your application for ethics approval for the project, please inform the Social and Behavioural Research Ethics Committee, giving reasons, if the research project is discontinued before the expected date of completion.

You are also required to report anything which might warrant review of ethical approval of the protocol. Such matters include:

- Serious or unexpected adverse effects on participants;
- Proposed changes in the protocol (modifications);
- Any changes to the research team; and
- Unforeseen events that might affect continued ethical acceptability of the project.

To modify/amend a previously approved project please either mail or email a completed copy of the Modification Request Form to the Executive Officer, which is available for download from

<http://www.flinders.edu.au/research/info-for-researchers/ethics/committees>

[/social-and-behavioural-research-ethics-committee/notification-of-committee-decision.cfm](http://www.flinders.edu.au/research/info-for-researchers/ethics/committees/social-and-behavioural-research-ethics-committee/notification-of-committee-decision.cfm). Please ensure that any new or amended participant documents are attached to the modification request.

In order to comply with monitoring requirements of the *National Statement on Ethical Conduct in Human Research (March 2007)* an annual progress and/or final report must be submitted. A copy of the pro forma is available from <http://www.flinders.edu.au/research/info-for-researchers/ethics/committees/social-behavioural.cfm>.

Your first report is due on 4 July 2012 or on completion of the project, whichever is the earliest.

Please retain this notice for reference when completing annual progress or final reports. If an extension of time is required, please email a request for an extension of time, to a date you specify, to human.researchethics@flinders.edu.au before the expiry date.

Fidelma Breen

For Andrea Mather (formerly Jacobs)

Executive Officer, Social and Behavioural Research Ethics Committee

4 July 2011

c.c Dr Marion Mitchell, marion.mitchell@griffith.edu.au

Dr Amanda Henderson, a.henderson@griffith.edu.au

Dr Duncan Nulty, d.nulty@griffith.edu.au, Ms

Carol Jeffrey, c.jeffrey@griffith.edu.au

UTS Human Research Ethics Committee

Dear Michelle,

Re: "An Implementation framework for OSCE 'Best Practice Guidelines 'designed to improve nurse preparedness for practice"

[External Ratification: Griffith University Human Research Ethics Application NRS/12/11/HREC Human Research Ethics Committee HREC approval - NRS/12/11/HREC - 15 June 2011 to 31 May 2013]

At its meeting held on 18/10/2011, the UTS Human Research Ethics Committee (reviewed your application) and commented that the participant material should contain the UTS logo and UTS HREC contact information. I am pleased to inform you that your external ethics clearance has been ratified.

Your UTS clearance number is UTS HREC REF NO. 2011-389R

You should consider this your official letter of approval. If you require a hardcopy please contact the Research Ethics Officer (Research.Ethics@uts.edu.au).

Please note that the ethical conduct of research is an on-going process. The National Statement on Ethical Conduct in Research Involving Humans requires us to obtain a report about the progress of the research, and in particular about any changes to the research which may have ethical implications. This report form must be completed at least annually, and at the end of the project (if it takes more than a year). The Ethics Secretariat will contact you when it is time to complete your first report. You must also provide evidence of continued approval from the Human Research Ethics Committee you originally received approval from.

I also refer you to the AVCC guidelines relating to the storage of data, which require that data be kept for a minimum of 5 years after publication of research. However, in NSW, longer retention requirements are required for research on human subjects with potential long-term effects, research with long-term environmental effects, or research considered of national or international significance, importance, or controversy. If the data from this research project falls into one of these categories, contact University Records for advice on long-term retention.

If you have any queries about your ethics clearance, or require any amendments to your research in the future, please do not hesitate to contact the Ethics Secretariat at the Research and Innovation Office, on 02 9514 9772.

Yours sincerely,

Professor Marion Haas
Chairperson
UTS Human Research Ethics Committee
C/- Research & Innovation Office
University of Technology, Sydney
Level 14, Tower Building
Broadway NSW 2007
Ph: 02 9514 9772
Fax: 02 9514 1244
Web: <http://www.research.uts.edu.au/policies/restricted/ethics.htm>

Appendix E – BPGs Evaluation Methods

Best Practice Guideline	Data source/ Sample	Method	Questions
1. Practice Related directly to the delivery of safe person centred care.	1) Academic/ Teaching Staff/ OSCE examiners 2) Assess holistic marking guide	Semi-structured interviews.	1) How did the student provide safe person centred care? 1) Did the holistic marking guide include questions/ assessment on safety at different points throughout the OSCE? Can you give an example of this? 2) Is there significant weighting of safety aspects in direct correlation with the student's stage of learning?
2. Practices which are most relevant to OSCE learning and assessment and likely to be commonly and/or significantly encountered in practice.	1) Academic/OSCE examiners Teaching Staff with recency of clinical experience	Semi-structured interviews & part of the pre-considerations when designing the OSCE, that is meeting clinical practice/ industry needs and curriculum objectives.	1) How does the OSCE represent common/and or significant clinical events from practice?
3. Be judged via a holistic marking guide to enhance both the rigor of assessment and reliability.	1) Academic/ Teaching Staff/ OSCE examiners 2) Assess Holistic Marking guide and OSCE examiners use of guide.	Semi-structured interviews	1) How did you previously assess the OSCE? 2) Do you think the assessment approach is more valid now than it used to be? How/why? 3) How do you think the student is learning as assessed by this marking guide? (Prompt- more integrated than piecemeal or vice versa). 4) How did you find the process of marking using this holistic marking guide? 5) Would you say this style of marking with this guide is easier to implement, more effective? How? 6) Do you think fewer errors are made using this style of marking? How?
4. Requires students to perform tasks in an integrated rather than piecemeal fashion by combining assessments of discrete skills in an authentic manner.	1) Students 2) Academic/ Teaching Staff) OSCE examiners	Survey questions using likert scales to assess integration of skills rather than piecemeal learning. This includes revision. Semi-structured interviews- similar questions structured as the student survey questions for this BPG- e.g. How did the students' demonstrate an integrated approach to the OSCE?	1. The OSCE is roughly like a real-life situation. I believed I could do well enough by: 'Just getting the skills right' -at (1) on a Likert scale to 'Use an integrated approach' at the other end (9) of a Likert scale. (Provide examples of these- context dependent) 2.To actually pass the OSCE I thought I would need to: Just Get the Skills right (likert scale 1 to 9) Use an integrated approach. 3. When I practised throughout the semester I focussed on: Just getting the Skills right (likert scale 1 to 9) Use an integrated approach. 4. I found it easier to practice the OSCE when I focused on: Just getting the Skills right (likert scale 1 to 9) Use an integrated approach 5. The OSCE felt more real-life when I focussed on: Just getting the Skills right (likert scale 1 to 9) Use an integrated approach 6.By the end of the course I focussed my revision on:

			Just getting the Skills right (likert scale 1 to 9) Use an integrated approach.
5. Be structured and delivered in a manner which aligns directly with mastery of desired knowledge and skill. This alignment should be both internal to the course and aligned prospectively with clinical tasks likely to be commonly and/or significantly encountered in practice.	1) Cls from 4 sites	Journal entries by site Cls.	This BPG also sits in with the Pre-considerations as to aligning the OSCE with curriculum and objectives. 1) How does this OSCE meet the objectives of this course? 2) How does this OSCE meet the standards required of your students at this point in their program? Can you give examples?
6. The OSCE and details of the OSCE must be appropriately timed in the sequence of student's learning to maximise assimilation and synthesis of disparate course content and to minimise the potential for students to adopt piecemeal, superficial learning approach.	1) Students 2) Academic /teaching staff/ OSCE examiners	A) Focus Group B) Survey Semi-structured interview	1) Why do you think your course co-ordinator released the details of your OSCE when they did? 2) Why do you think the timing of release of the details of the OSCE impacts upon your learning? 3) At Griffith the OSCE is timed toward the end of the course. Do you think this is appropriate to your learning? How does it help? How does it hinder? Where should you put it in? 1) Why do you think releasing the OSCE material when you did impacts on the students' learning? 2) Why does this impact upon your teaching? 3) How do you think this OSCE will build on previous OSCEs? Or How do you think this OSCE will inform the student's next OSCE in the program? 4) At Griffith the OSCE is timed toward the end of the course. Why do you think this is appropriate to student's learning? How does it help? How does it hinder? Where else could you put it? Why didn't you put it there?
7. Allow for ongoing practice of integrated clinical assessment and intervention skills in a safe supportive environment thereby also ensuring the appropriate and timely use of feedback to guide students' development and ongoing reflection.	1) Students	A) Survey	1) Was there time allocated to practise? Yes/No Where these within the course or extra practise times or both? 2) Were there sufficient practice periods/times? Not adequate, adequate, more than adequate. 3) Did you use the practice sessions/times made available? Not at all, sometimes, always 4) When you attended the practice sessions/time did you receive comments and/or feedback from the teaching staff? Not at all, sometimes, always 5) How useful did you find these comments and/or feedback? Not Helpful (likert scale 1 to 9) Extremely Helpful. 6) When you attended the practice sessions/time did you receive comments and/or feedback from someone other than the teaching staff, for example a fellow student? Not at all, sometimes, always 7) How helpful did you find these comments and/or feedback? Not Helpful (likert scale 1 to 9) Extremely Helpful.

Appendix F - Project Timeline – Projected and Achieved

<i>Months</i>	<i>1-3</i>	<i>4-6</i>	<i>7-9</i>	<i>10-12</i>	<i>13-15</i>	<i>16-18</i>	<i>19-21</i>	<i>22-24</i>
Activity								
Face-to-face meeting with team members and collaborators								
Preparation (meet with & plan 4 sites timeline for OSCE);								
HREC applications								
Development of questions to guide the implementation framework within the use of OSCE at 4 sites								
Application of framework to OSCE.								
Revision of OSCEs at 4 sites								
Adoption of content of framework of 'Best Practice Guidelines'								
Reference Group feedback & evaluation								
Revise framework								
Web-site development for dissemination								
Final report								
Writing for publication & conference abstracts								
External evaluation								

Appendix G - Sample:Student Survey

An Implementation framework for the OSCE 'Best Practice Guidelines' designed to improve nurse preparedness for practice.

Please complete the following-

My age is:

_____ years

I am:

Male ₁ Female ₂

I am a:

School Leaver ₁ Mature Age Student ₂ Graduate Entry Student ₃ International Student ₄

Other Please Specify: _____

Instructions for Questions 1 to 6:

Please answer the following questions by circling the number for each question **both** Part A and B which you think best represents your thoughts about your OSCE performance and preparations.

Part A is asking about:

- **Just get the skills right-** that is only focusing on the clinical skills in the OSCE.

Part B is asking about:

- **Using an integrated approach-** that is not only focusing on the clinical skills but also bringing in all aspects of a therapeutic nurse-patient relationship such as comfort and privacy etc.

1. The OSCE is roughly like a real-life situation. I believed I could do well enough by:							
	Strongly Disagree	Disagree	Slightly Disagree	Undecided	Slightly Agree	Agree	Strongly Agree
A) Just get the skills right	1	2	3	4	5	6	7
B) Using an integrated approach	1	2	3	4	5	6	7
2. To actually pass the OSCE I thought I would need to:							
A) Just get the skills right	1	2	3	4	5	6	7
B) Using an integrated approach	1	2	3	4	5	6	7
3. When I practised for the OSCE throughout the semester I focussed on:							
A) Just get the skills right	1	2	3	4	5	6	7
B) Using an integrated approach	1	2	3	4	5	6	7
4. I found it easier to practice the OSCE when I focused on:							
A) Just get the skills right	1	2	3	4	5	6	7
B) Using an integrated approach	1	2	3	4	5	6	7
5. The OSCE felt more real-life when I focussed on:							
A) Just getting the skills right	1	2	3	4	5	6	7
B) Using an integrated approach	1	2	3	4	5	6	7
6. By the end of the course I focussed my revision for the OSCE on:							
A) Just get the skills right	1	2	3	4	5	6	7
B) Using an integrated approach	1	2	3	4	5	6	7

7. a) When did you get access to the marking criteria for your OSCE assessment? Please tick one of the following:

Start of Semester ₁ Mid-Semester ₂ End of Semester ₃ No Access ₄

b) When did you get access to the scenarios for your OSCE assessment?

Please tick one of the following:

Start of Semester ₁ Mid-Semester ₂ End of Semester ₃ No Access ₄

8. Was there time allocated to practise the OSCE? Please Tick one of the following:

Yes ₁ No ₂ ***If you answer No please go to Question 17.**

9. If you were given practice time; when were these practice sessions for the OSCE scheduled?

Please Tick one of the following:

During the class ₁ Extra practice outside of class time ₂ Both during and after class ₃

10. Were there adequate practice periods/times for your OSCE preparation? Please Tick one of the following:

Not adequate ₁ Adequate ₂ More than adequate ₃

11. Did you use the practice sessions/times made available for your OSCE? Please Tick one of the following:

Not at all ₁ Sometimes ₂ Mostly ₃ Always ₄

12. When you attended the practice sessions/times did you receive comments and/or feedback from the teaching staff about your OSCE performance? Please Tick one of the following:

Not at all ₁ Sometimes ₂ Mostly ₃ Always ₄

13. How helpful did you find these comments and/or feedback about your OSCE? Please Circle the number most applicable to you-

1	2	3	4	5	6	7
Very Unhelpful	Unhelpful	Slightly Unhelpful	Undecided	Slightly Helpful	Helpful	Very Helpful

14. When you attended the practice sessions/times did you receive comments and/or feedback from someone other than the teaching staff, for example a fellow student about your OSCE performance? Please Tick one of the following:

Not at all ₁ Sometimes ₂ Mostly ₃ Always ₄

15. How helpful did you find these comments and/or feedback from others who are not teaching staff? **Please Circle the number most applicable to you:**

1	2	3	4	5	6	7
Very Unhelpful	Unhelpful	Slightly Unhelpful	Undecided	Slightly Helpful	Helpful	Very Helpful

16. What did you practice at these sessions? **Please Tick the letter of your answer-**

- A)** focused only on the practical skills
- B)** the whole OSCE but mainly focussed on the practical skills
- C)** focused on just the practical skills I struggle with, but also considered some aspects of the patient scenarios e.g. privacy
- D)** the whole OSCE and focusing on my patient using all aspects of the nurse-patient encounter

17. Please indicate by the following scale how well you now believe you can perform the following clinical tasks after your OSCE: **Please Circle the number for how confident you feel for each of the following clinical skills:**

	1. Not at all confident			←————→				7. Extremely Confident			
Clinical Skill	Confidence Rating										
A) Introducing yourself to the patient	1	2	3	4	5	6	7				
B) Getting an overall initial sense of the patient (a snapshot)	1	2	3	4	5	6	7				
C) Obtaining consent from the patient prior to the task at hand.	1	2	3	4	5	6	7				
D) Explaining confidentiality to the patient.	1	2	3	4	5	6	7				
E) Taking a set of vital signs.	1	2	3	4	5	6	7				
F) Leaving your patient safe when finishing the interaction.	1	2	3	4	5	6	7				

18. If you have any further comments you would like to add about the OSCE please do so below:

Please place the survey in the box marked ‘Survey’

Thank you very much for your time!

Appendix H – Sample Student Focus Group and Staff Interview Questions

BPG OSCE Project Focus Group Questions (Student Participants)

- 1) Why do you think your course co-ordinator released the details of your OSCE when they did?
- 2) How do you think the timing of release of the details of the OSCE impacts upon your learning?
- 3) At Griffith the OSCE is timed toward the end of the course. Do you think this is appropriate to your learning? How does it help? How does it hinder?
- 4) In what ways did you seek comments and/or feedback at the practice sessions for the OSCE you attended?
- 5) Can you explain how the comments and/or feedback affected your OSCE performance?
- 6) What did you think were key points of focus for good performance in the OSCE?
- 7) How did the OSCE prepare you for future clinical experience?
- 8) What is the value of having OSCEs in your degree program?

BPG OSCE Project Semi-structured Interview Questions (Academic Staff Participants)

- 1) How did the student provide safe person centred care in the OSCE?
- 2) How did you previously assess the OSCE?
- 3) Do you think the assessment approach is more valid now than it used to be? How/why?
- 4) How do you think the student is learning as assessed by this marking guide?
- 5) How did the students' demonstrate an integrated approach to the OSCE?
- 6) How did you find the process of marking the OSCE using this holistic marking guide?
- 7) Would you say this style of marking the OSCE with this guide is easier to implement, more effective? How?
- 8) Do you think fewer errors are made using this style of marking the OSCE? How?
- 9) Did the holistic marking guide include questions/ assessment on safety at different points throughout the OSCE? Can you give an example of this?
- 10) Is there significant weighting of safety aspects in direct correlation with the student's stage of learning?
- 11) How does the OSCE represent common/and or significant clinical events from practice?
- 12) How do you think releasing the OSCE material when you did impacts on the students' learning?
- 13) How does this releasing of material about the OSCE impact upon your teaching?
- 14) How do you think this OSCE will build on previous OSCEs? Or How do you think this OSCE will inform the student's next OSCE in the program?
- 15) At Griffith the OSCE is timed toward the end of the course. Why do you think this is appropriate to student's learning? How does it help? How does it hinder? Where else could you put it? Why didn't you put it there?
- 16) In what ways did you make practice sessions/times for the OSCE available to your students?
- 17) What was the attendance like at these practice sessions/times for the OSCE?
- 18) How did you provide comments and/or feedback to your students at these sessions/times for the OSCE?
- 19) How do you provide student comments and/or feedback about the OSCE apart from these practices sessions/times to your students?
- 20) What is your overall impression of this OSCE in regards to preparing students for practice?

Appendix I – Sample Consent Forms & Information Sheets

Consent Form/Student Focus Group

Full Project Title: An Implementation framework for the OSCE ‘Best Practice Guidelines’ designed to improve nurse preparedness for practice.

Principal Researcher: Dr Marion Mitchell
School of Nursing and Midwifery
(07) 3176 7772
marion.mitchell@griffith.edu.au

Associate Researchers: Associate Professor Michele Groves, Professor Amanda Henderson, Dr Duncan Nulty, Carol Jeffrey, Associate Professor Pauline Glover, Ms Michelle Kelly, Professor Sabina Knight

By signing below, I have read and understood the information sheet for participating in the student focus group for the above research project. In particular I have noted:

- I understand my involvement will take approximately one hour and will include discussion centred on the OSCE I have recently undertaken.
- I have had any questions answered to my satisfaction.
- I understand the risks involved.
- I understand there will be no direct benefit to me from my participation in this research.
- I understand that **my participation in this research is purely voluntary** and has no reflection on my grades in the course involving the OSCE.
- I understand that if I have any additional questions I can contact the research team.
- I understand that I am free to withdraw at any time without comment or penalty.
- I understand that I can contact the Executive Officer of the Flinders University Social and Behavioural Research Ethics Committee on 8201 3116 or human.researchethics@flinders.edu.au if I have any concerns about the ethical conduct of the project.
- I agree to participate in the project.

Name	
Signature	
Date	

Student Participant Information for Survey and Focus Group

Full Project Title: An Implementation framework for the OSCE 'Best Practice Guidelines' designed to improve nurse preparedness for practice.

Principal Researcher: Dr Marion Mitchell

Associate Researchers: Associate Professor Michele Groves, Professor Amanda Henderson, Dr Duncan Nulty, Carol Jeffrey, Associate Professor Pauline Glover, Ms Michelle Kelly, Professor Sabina Knight

1. Your Consent

You are invited to take part in this research project, which focuses on improving OSCEs in your course. Participants are being drawn from students enrolled in a course containing an OSCE from Griffith University, Flinders University (Adelaide and Alice Springs) and University of Technology Sydney. This Participant Information Coversheet contains detailed information about the research project. Its purpose is to explain to you as openly and clearly as possible the procedures involved in this project before you decide whether or not to complete the questionnaire enclosed. Please retain this coversheet for future reference. If you **complete and return the questionnaire, you will be deemed to have consented to participate in the research.**

2. Purpose and Background

The aim of this project is to develop a framework to guide the implementation of the Best Practice Guidelines within Observed Simulated Clinical Examinations (OSCEs) to support their broad utilisation within nursing and midwifery studies. The Best Practice Guidelines came from an initial pilot project at Griffith University. These guidelines were generated to assist in the formulation of OSCEs which best serve the current clinical environment. The application of the Best Practice Guidelines nationally across diverse settings will provide academic direction and support in developing rigorous and valid clinical assessment thus improving the quality of students' preparation for workplace situations during clinical practicums. Students who are well prepared for the workplace are readily able to assimilate, learn through the experiences offered and provide quality safe patient care.

Specifically, the aims of this project include:

1. Develop an implementation framework to integrate Best Practice Guidelines in curricula.
2. Trial and evaluate the Best Practice Guidelines across a broad range of diverse educational settings.
3. Develop a suite of learning, teaching and feedback resources to use in conjunction with the framework.

3. Procedures

This project has developed and implemented OSCEs in your course. This OSCE which has utilized the Best Practice Guidelines is to be evaluated via a questionnaire across all four participating universities.

You will also be asked to volunteer for a focus group.

4. Possible Benefits

The objective of this project is to design OSCEs that reflect clinical practice requirements. Evaluating assessment is an important way to reflect on student learning and improve student knowledge. OSCEs need to be evaluated in an effort to improve students' clinical practice and future as a registered nurse. The Best Practice Guidelines provide a framework for the OSCEs to be evaluated and compared across different contexts.

5. **Possible Risks**

There are no foreseen risks involved in your participation in this research.

6. **Participation is Voluntary**

Participation in any research project is voluntary. If you do not wish to take part you are not obliged to. If you decide to take part and later change your mind, you are free to withdraw from the project at any stage.

Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your studies at your University.

7. **Privacy, Confidentiality and Disclosure of Information**

The conduct of this research involves anonymous collection of data via a questionnaire and the information provided via the focus group will be de-identified prior to analysis.

Please note that the academic and teaching staff directly involved in the grading of your course which contains the OSCE will not know who undertakes the questionnaire or who volunteers for the focus group. This is due to the anonymous nature of the questionnaire and the focus group will be conducted by project team members who are not from your campus or your university.

For information consult the University's Privacy Plan at <http://www.griffith.edu.au/about-griffith/plans-publications/griffith-university-privacy-plan> or telephone (07) 3735 5585. In any publication, the researchers will publish grouped participant data only.

Only the Principal Researcher will keep data from the research in a locked filing cabinet, accessible only by her. The data will only be used for the purpose of this research. The researchers will destroy the data by shredding paper and erasing computer files after 5 years, which is the time period we are required to keep research data.

8. **Results of Project**

Upon completion we would like to make available a brief copy of the results of the research. These results will appear on your University website and an email will be sent to the entire student group who may have participated in this research via their enrolment in the OSCE course. The final outcomes of this project will also be available on the government website- DEEWR in 2013.

9. **Further Information or Any Problems**

If you require further information or if you have any problems concerning this project, you can contact the principal researcher, Dr Marion Mitchell on telephone number (07) 3176 7772.

10. **The ethical conduct of this research**

This project will be carried out according to the *National Statement on Ethical Conduct in Human Research* (2007) produced by the National Health and Medical Research Council of Australia. This statement has been developed to protect the interests of people who agree to participate in human research studies.

The ethical aspects of this research project have been approved by the Human Research Ethics Committee of Griffith University and the Ethics Committees of Flinders University, and University of Technology Sydney.

Should you wish to discuss the study with someone not directly involved, or should you have any complaints about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact Mr Gary Allen, Manager, Research Ethics, Griffith University, ph 3735 5585 or email g.allen@griffith.edu.au.

The researchers thank you for your interest in this project Consent Form/Staff Semi-structured Interview

Full Project Title: An Implementation framework for the OSCE 'Best Practice Guidelines' designed to improve nurse preparedness for practice.

Principal Researcher: Dr Marion Mitchell
School of Nursing and Midwifery
(07) 3176 7772
marion.mitchell@griffith.edu.au

Associate Researchers: Associate Professor Michele Groves, Professor Amanda Henderson, Dr Duncan Nulty, Carol Jeffrey, Associate Professor Pauline Glover, Ms Michelle Kelly, Professor Sabina Knight

By signing below, I have read and understood the information sheet for participating in the semi-structured interview for the above research project. In particular I have noted:

- I understand my involvement will take approximately one hour and will include discussion centred on the OSCE I have recently had involvement with.
- I have had any questions answered to my satisfaction.
- I understand the risks involved.
- I understand there will be no direct benefit to me from my participation in this research.
- I understand that my **participation in this research is purely voluntary** and has no reflection on my employment at the university.
- I understand that if I have any additional questions I can contact the research team.
- I understand that I am free to withdraw at any time without comment or penalty.
- I understand that I can contact the Executive Officer of the Flinders University Social and Behavioural Research Ethics Committee on 8201 3116 or human.researchethics@flinders.edu.au if I have any concerns about the ethical conduct of the project.
- I agree to participate in the project.

Name	
Signature	
Date	

Participant Information for Semi- Structured Interviews (Academics/Teaching

Staff/ OSCE Examiners)

Full Project Title: An Implementation framework for the OSCE 'Best Practice Guidelines' designed to improve nurse preparedness for practice.

Principal Researcher: Dr Marion Mitchell

Associate Researchers: Associate Professor Michele Groves, Professor Amanda Henderson, Dr Duncan Nulty, Carol Jeffrey, Associate Professor Pauline Glover, Ms Michelle Kelly, Professor Sabina Knight

1. Your Consent

You are invited to take part in this research project, which focuses on improving OSCEs in your course. Participants are being drawn from students, academics/teaching staff and OSCE examiners involved in a course containing an OSCE from Griffith University, Flinders University (Adelaide and Alice Springs) and University of Technology Sydney. This Participant Information Coversheet contains detailed information about the research project. Its purpose is to explain to you as openly and clearly as possible the procedures involved in this project before you decide whether or not to participate in a semi-structured interview.

2. Purpose and Background

The aim of this project is to develop a framework to guide the implementation of the Best Practice Guidelines within Observed Simulated Clinical Examinations (OSCEs) to support their broad utilisation within nursing and midwifery studies. The Best Practice Guidelines came from an initial pilot project at Griffith University. These guidelines were generated to assist in the formulation of OSCEs which best serve the current clinical environment. The application of the Best Practice Guidelines nationally across diverse settings will provide academic direction and support in developing rigorous and valid clinical assessment thus improving the quality of students' preparation for workplace situations during clinical practicums. Students who are well prepared for the workplace are readily able to assimilate, learn through the experiences offered and provide quality safe patient care.

Specifically, the aims of this project include:

1. Develop an implementation framework to integrate Best Practice Guidelines in curricula.
2. Trial and evaluate the Best Practice Guidelines across a broad range of diverse educational settings.
3. Develop a suite of learning, teaching and feedback resources to use in conjunction with the framework.

3. Procedures

This project has developed and implemented OSCEs in the course you teach/examine. This OSCE which has utilized the Best Practice Guidelines is to be evaluated via semi-structured interviews across all four participating universities.

4. Possible Benefits

The objective of this project is to design OSCEs that reflect clinical practice requirements. Evaluating assessment is an important way to reflect on student learning and improve student knowledge. OSCEs need to be evaluated in an effort to improve students' clinical practice and future as a registered nurse. The Best Practice Guidelines provide a framework for the OSCEs to be evaluated and compared across different contexts.

5. Possible Risks

There are no foreseen risks involved in your participation in this research.

6. Participation is Voluntary

Participation in any research project is voluntary. If you do not wish to take part you are not obliged to. If you decide to take part and later change your mind, you are free to withdraw from the project at any stage.

Your decision whether to take part or not to take part, or to take part and then withdraw, **will not affect your employment at your University.**

7. Privacy, Confidentiality and Disclosure of Information

The conduct of this research involves collection of data via a semi-structured interview. This data will be de-identified and coded for anonymity. For information consult the University's Privacy Plan at <http://www.griffith.edu.au/about-griffith/plans-publications/griffith-university-privacy-plan> or telephone (07) 3735 5585. In any publication, the researchers will publish grouped participant data only.

Only the Principal Researcher will keep data from the research in a locked filing cabinet, accessible only by her. The data will only be used for the purpose of this research. The researchers will destroy the data by shredding paper and erasing computer files after 5 years, which is the time period we are required to keep research data.

8. Results of Project

Upon completion we would like to make available a brief copy of the results of the research. These results will be available through the investigator at your site (details at the beginning of this information sheet). The final outcomes of this project will also be available on the government website- DEEWR in 2013.

9. Further Information or Any Problems

If you require further information or if you have any problems concerning this project, you can contact the principal researcher, Dr Marion Mitchell on telephone number (07) 3176 7772.

10. The ethical conduct of this research

This project will be carried out according to the *National Statement on Ethical Conduct in Human Research* (2007) produced by the National Health and Medical Research Council of Australia. This statement has been developed to protect the interests of people who agree to participate in human research studies.

The ethical aspects of this research project have been approved by the Human Research Ethics Committee of Griffith University and the Ethics Committees of Flinders University, and University of Technology Sydney.

Should you wish to discuss the study with someone not directly involved, or should you have any complaints about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact Mr Gary Allen, Manager, Research Ethics, Griffith University, ph 3735 5585 or email g.allen@griffith.edu.au.

The researchers thank you for your interest in this project.

Appendix J – Local Site Dissemination Flyers



Best Practice Guidelines for Objective Standardised Clinical Examinations: These could work for you!

Do you have, or would you like to have Objective Standardised Clinical Examinations (OSCEs) in your program or course?

A national project team with Griffith University as the lead institution is in the final stages of completion of a two year project (funded by ALTC now OLT) focused on testing and further evolving Best Practice Guidelines (BPGs) for OSCEs. The project has devised 7 BPGs which guide the formulation of OSCEs to be tailored to your specific needs. The BPGs have been tested in four very different environments and have been well received and now instituted by our partner sites.

We will provide an overview of the project and **work with you to develop your OSCEs.**

If this appeals to you come along to our workshop - see the following details:

Hosts: Associate Professors Marion Mitchell and Duncan Nulty, Professor Amanda Henderson and Project Officer Carol Jeffrey

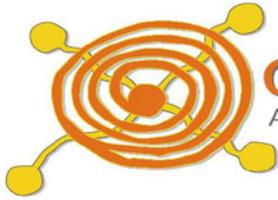
Date: Wednesday the 28th of November 2012

Time: 12midday until 2.30pm

Venue: Gold Coast Campus GO1 2.12

A **light lunch** will be provided (at 12midday) so **please RSVP** for catering purposes to **Carol Jeffrey** on c.jeffrey@griffith.edu.au and provide any dietary needs.

Any **further details** contact Associate Professor Marion Mitchell on marion.mitchell@griffith.edu.au or Carol Jeffrey c.jeffrey@griffith.edu.au



Centre for Remote Health

A joint centre of Flinders University and Charles Darwin University



Seminar Series 2012

Best Practice Guidelines for the RAN Model of Consultation Simulation.

A joint project between Griffith University and Centre for Remote Health.

Come along and hear the results of the research undertaken earlier this year between CRH and Griffith University. Best Practice Guidelines were applied to the original format of the simulation of the RAN Model of Client Consultation which the RAN students undertake as part of their intensive block at CRH. Changes were then made to the format of the simulation. These changes were analysed by focus groups and a survey with the RAN students and interviews with the CRH teaching staff. This research is part of a national project (funded by ALTC now OLT) focusing on simulation in a number of environments with other partner sites- University of Technology Sydney and Flinders University. The project has ethical approval.

Presenters: Associate Professor Marion Mitchell & Project Officer Carol Jeffrey-Griffith University

Project Team: Associate Professors Marion Mitchell, Duncan Nulty (GU), Michele Groves (UQ) and Pauline Glover (Flinders) Professors Amanda Henderson (GU) and **Sabina Knight (JCU formerly from CRH)**, Ms Michelle Kelly (UTS) and Project Officer Carol Jeffrey (GU).

Tuesday 2nd October; 12noon – 1pm
Centre for Remote Health
Cnr Simpson & Skinner St, Alice Springs

This seminar will be streamed live http://mtu.flinders.edu.au/events/CRH_Live.cfm and a recording available following the event <http://www.crh.org.au/content/view/268/100/>

To register, phone (08) 8951 4700 or email crh.reception@flinders.edu.au

Lunch will be provided please RSVP for catering purposes

School of Nursing & Midwifery Research seminar



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Associate Professor Pauline Glover

The development of an implementation framework that guides the OSCE Best Practice Guidelines (BPGs) integration into curricula

This presentation will report on findings of an Australian Learning and Teaching Council's (ALTC now OLT) project. Objective structured clinical examinations (OSCEs) are a regular component of Bachelor of Nursing (BN) and Bachelor of Midwifery (BM) programs within Australia and internationally. The key activity of the project was collaboration and discussion around applying these BPGs, and feedback from staff and students through interview and survey to maximise their value.

The project was done in collaboration with the School of Nursing and Midwifery (SONM) Griffith University (GU) lead collaborator along with three other diverse educational institutions, Flinders University Adelaide, UTS Sydney, and Centre for Remote Health (A joint Centre of Flinders University & Charles Darwin University). The application of these guidelines nationally across diverse settings has the potential to improve teaching, learning and assessment practices and arguably the quality of students' preparation for workplace situations during clinical practicums. Students that are well prepared for the workplace are readily able to assimilate, learn through the experiences offered and provide safe quality care.

Date: Friday, 9 November 2012

1.00 pm – 2.00 pm

**Room: N317, North Wing, Sturt Buildings
Flinders University, South Australia**

Enquiries contact: sonminspiration@flinders.edu.au, telephone 8201 5225

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CRICOS No. 00114A



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IDEAS, PRACTICES
AND RESEARCH
ON **CURRICULUM**
INNOVATION IN A
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UNIVERSITY

**UTS Teaching and
Learning Forum**
PROGRAM AND ABSTRACTS

14 November 2012
University of Technology, Sydney

Presentation Abstracts: Listed by Presentation Streams

Stream 1

11.15am Rm CB06.03.51

An Experiment in the use of the Viva Styled as an Interview to Embed Graduate Attributes and Develop Professional Readiness in the Major Project Subject of the Journalism Major

Jenna Price

This subject requires students to produce a portfolio of work and then be able both to analyse that work and to define their professional aspirations in detail with external examiners. It is through this process that the twin and opposing challenges of tertiary education – students' personal quests and the need for professional readiness – go some way to being resolved.

11.40am Rm CB06.03.51

Tailoring Best Practice Guidelines for OSCEs and Simulations in Nursing and Midwifery Programs across Diverse Settings: A Multi-Site Australian Study

Michelle Kelly, Marion Mitchell, Carol Jeffrey, Pauline Glover, Amanda Henderson, Duncan Nulty, Sabina Knight & Michele Groves

Seven established best practice guidelines (BPG) for OSCEs were further tested across 4 diverse urban and remote settings with undergraduate and postgraduate nursing and midwifery students. At UTS, the guidelines were applied to simulations for 1st year nursing students. Virtually no modifications were required to the simulation activities in relation to the BPGs. Across the 4 sites, 691 students participated in revised OSCEs or simulations and 557 students completed post-experience surveys (response rate 80%). Student surveys indicated overwhelmingly that the OSCEs/simulation supported their learning and preparation for clinical practice experiences, specifically increasing their insight and confidence.

12.05pm Rm CB06.03.51

Internationalisation of the Curriculum: Using Role-Play Simulations to Enhance Intercultural Engagement in a Practice-Oriented Context

Sophie Riley & Grace Li

The notion of internationalisation does not have a settled meaning. However, its main objective aims at enriching 'the international dimension' of the higher education experience. Promoting student mobility and embedding international elements in existing curricula present one dimension of internationalisation. Another and equally important dimension is the integration of intercultural skills in the curriculum. Such skills should extend beyond intercultural competence to encompass intercultural sensitivity. The paper explores the use of role-play simulations as one means of fostering that development by building bridges of tolerance and understanding. Role-play simulations also provide an opportunity for students to engage in practice-oriented learning and readily lend themselves to the inclusion of intercultural elements.

Appendix K – Evaluation Report

An Implementation framework for the OSCE ‘Best Practice Guidelines’ designed to improve nurse preparedness for practice. PP10-1785

Brian Jolly

Professor of Medical Education

University of Newcastle

February 2013

1. What is the nature of the project?

This project focused on the further refinement, implementation and in-situ evaluation of some best practice guidelines for the use of objective structured clinical examinations (OSCEs) in nursing. The aims of the project were identified in the proposal (p4) as:

1. Develop an implementation framework to integrate Best Practice Guidelines in curricula.
2. Trial and evaluate the Best Practice Guidelines across a broad range of diverse educational settings.
3. Develop a suite of learning, teaching and feedback resources to use in conjunction with the framework.

However the project also had several broader and more deeply targeted outcomes that addressed generic problems in the nursing educational milieu. These included

1. A sustainable and flexible implementation framework for OSCEs Best Practice Guidelines that support students' preparation for practice.
2. Enhanced capacity of tertiary educators in nursing and midwifery courses and clinical supervisors in healthcare services to promote preparedness for practice.
3. A strategic change within the systems of tertiary nurse education and clinical supervision in healthcare organizations, as well as greater recognition of their potential contributions.
4. A transferable set of strategies and resources for the development and embedding of the Best Practice Guidelines model to a diversity of tertiary education providers with undergraduate nursing and midwifery courses.

These four outcomes are notable because they address trenchant and long standing issues in health professional education centred on two very important requirements: the need to produce work-ready practitioners (e.g. Walker et al 2013) and the need to develop some systemic changes in the academic and clinical supervisory contexts that better promote learning and provide support for students (Reid-Searle et al, 2010).

The conceptual framework underpinning these aims and outcomes was rooted in two papers that the project team had already developed (Mitchell et al, 2009; Nulty et al, 2011). Part of the project was to further refine the guidelines to better facilitate their adoption and dissemination across other environments. These papers are the fundamental foundations for this study as a whole, and it is necessary to elucidate the ideas within them against the general contexts in which OSCEs have been used previously.

The first paper (Mitchell et al 2009) speaks to the background of OSCE development and use in medicine and reviews literature that might indicate how the OSCE had been and could be further 'translated' into other contexts such as nursing. In this paper the authors highlighted some important contextual restrictions that the direct application of the medical OSCE 'technology' had encountered.

First they identified that, although a notable advantage of the OSCE was its ability to provide a 'standardized' clinical assessment (through, for example the use of simulated patients and marking protocols), this very advantage prevented the OSCE paradigm from "accommodating the myriad cultural, economic and sociopolitical contexts that exist within the larger clinical nursing context" (p402). In essence the OSCE methodology was unlikely fully to reflect the student's ability to competently apply critical thinking in the real-life clinical setting. Second, the OSCE did not really assess 'performance' in the real world but an abstracted set of competencies delivered in an examination setting. Third, because so much of nursing in its 'caring' function depends upon a myriad of contextual issues, the rigidity of the OSCE, (albeit delivering high reliability and apparent validity), restricts the extent to which it can address those 'soft' psychosocial constructs, such as caring.

Fourth, the OSCE is good at measuring specific skills but challenged to evaluate an integrated approach to patient care over a longer time frame. This challenge nevertheless led to another principle of good practice, namely that assessment, of whatever mode, has to be matched to the expected level of competence and that an OSCE can nevertheless make a useful contribution to the suite of assessments designed to do this.

However the authors did not leave the issues there. In the second paper (Nulty et al, 2011) they took the basic lessons from the literature review and crafted a set of best practice guidelines to assist the integration of OSCEs into curriculum design and assessment processes and, in the paper, reported what changes they made to a first year OSCE as a result. These seven guidelines were that the OSCE should:

- 1 Focus on practice related directly to delivery of safe client/patient care;
 - 2 Focus on practice that is most relevant to OSCE learning and assessment and likely to be commonly encountered in a clinical setting;
 - 3 Use a holistic marking guide to enhance both the rigour and reliability of assessment.
 - 4 Require students to perform tasks in an integrated rather than piecemeal fashion by combining assessments of discrete skills in an authentic manner;
 - 5 Be delivered in a manner that aligns directly with mastery of desired knowledge and skill.
 - 6 Be appropriately timed in the sequence of students' learning to maximise assimilation and synthesis of disparate course content and to minimise the potential for students to adopt a piecemeal, superficial learning approach;
 - 7 Promote practice of integrated clinical assessment and intervention skills, thereby also ensuring the appropriate and timely use of feedback to guide students' development.
- (ref p 146)

It could be argued that these principles are much broader than their origin and could be applied to any assessment situation. However the two papers remain a significant advance on the previous OSCE literature that focused almost entirely on descriptive studies of its use, or psychometric analyses of its reliability and validity, or a combination of the two. In my view these papers represent a substantial and crucial stimulus to better use of the OSCE in the context of healthcare education and deserve wider dissemination. The success of this project essentially hinges on its capacity to use these guidelines in diverse settings to engender change in assessment practice.

2. The purpose and scope of the evaluation

The evaluation is being undertaken to enable an overview of the project to be created with an external perspective. The project team have been working together now for a number of years. The two papers discussed above are team outputs. The project was designed and submitted to the OLT (ALTC) by the team and even the reference group has been together for the duration of the project.

The scope of the evaluation was agreed over the course of a few months by negotiation between the author and the Project lead and Project officer.

This process occurred quite late in the project, unavoidably so, firstly because the original evaluator left the project. Secondly, because actually fixing a meeting took some time to arrange and was achieved only by teleconference. This means that some attributes of evaluations – the capacity to be in the evaluation role from inception, and gather data as the project unfurled – could not be developed. Consequently, the evaluation has taken place through examining project working documents and outputs, and interviewing stakeholders, all in the last 4 months of the project.

However since the main goals of the project were to develop a framework and implement some guidelines, rather than develop and nurture these guidelines through phases of testing and evaluation, this is probably an appropriate strategy.

After initial reading of the project proposal, the two papers discussed above, and accompanying documentation, a number of questions were identified and refined in discussions. (see Section 4)

3. Stakeholders and Audience

The stakeholders in this project are primarily the OLT, the project team and the implementation sites. Since the outcomes from this project will take some time to cascade down through further iterations (as the test sites disperse their expertise) it was thought appropriate, given the time scale, to concentrate on the team, the reference group and the test sites.

The audience for this evaluation is the OLT and other members of the healthcare education community that develop assessments of student learning and competences. The evaluation is aimed at providing an external statement on the extent to which project outcomes have been achieved; an assessment of its operation; how the team functioned and the development of team members' capacities; and demonstration of the project having been conducted to high academic standards.

4. The key evaluation questions

The evaluation questions took some time to identify. Potentially this project has a very broad scope. Thus, rather than focus down on the minutiae of the deliverables, it was thought more appropriate to stick to a broad investigation of some very obvious questions (a, b, f, g, below), some generated by what seemed to be very ambitious goals (d, e), and one ambiguity between the project proposal and the apparent delivery (c)

- a) Were some guidelines more effective than others; If so why?
- b) Were some sites more accepting than others; if so why?
- c) The Project was about the implementation of guidelines, but the survey data collected was frequently about quality of OSCEs. Were any additional factors investigated? That is, were there process as well as product issues considered?
- d) The 3rd project outcome identifies change in 2 systems, but there are no specifics : what types of change, how rapid, and how embedded or not would you/did you expect, to find?
- e) What was the nature of the 'collaborative exercises' (p6) and how did these go down at the sites?
- f) How well did the team/reference group work together?
- g) How did the reference group perceive its involvement, its understanding, the value to Nursing, (and other health care disciplines), appraisal of outcomes, shared decision making, acceptance of its advice, dissemination roles, and were they all achieved?

5. Data Collection and Analysis

Although I was engaged as an evaluator in mid 2012 I was unable, because of prior commitments, to observe any team meetings. For this reason I chose individual interviews with as many team members, steering group, and site co-ordinators as possible as the main basis for the end of project evaluation. In addition I looked at all available documents and papers associated with project processes and outcomes.

All but two of the identified stakeholders were interviewed. One, an international high profile clinician, could not be interviewed because the author and she could not coordinate an appropriate time. The other, an implementation site colleague, was away during the period when the interviews were undertaken and time for a follow up ran out.

Interviews were between 27 minutes and 1 hour in duration. Interviews were transcribed and analysed for themes by the evaluator. Detailed coding and recoding was not undertaken because the issues at stake were the perceptions and beliefs of the interviewees about events being delivered in their own educational context

6. The Findings

6.1 The congruence between the project proposal and its expression within the project process

The proposal is anchored in a real life educational issue; the appropriate assessment of a range of clinical competencies and the need to ensure that this is undertaken in a more rational and considered fashion by schools of nursing and other institutions. The context is clearly articulated, and the goals specified. The proposal identifies, for example, that “the ways students are assessed is widely regarded as the single most important aspect of the curriculum in determining what, and how students engage in learning”, p 2. It goes on to identify important synergies between work done in medicine and strategies needed in nursing to improve the articulation of assessment with learning. In this it follows a well-established line of interest and endeavour with many prior ALTC projects capable of contributing to the project development.

The project was an attempt to translate medically focussed educational strategies into nursing contexts, a goal that many projects have strived for previously. However the project process was enhanced by the use of an expert reference group that was inter-professional and included a doctor, a nurse and a psychologist- simulation expert. Having spoken to this group it is clear that they had a great influence on the design of the project, even though three out of four of the reference team were from outside nursing. To constitute the reference group in this way was a brave decision by the project team, and one that had substantial pay-off. It may well be the case that other projects could benefit from inter-professional reference groups of this type, even if the project has a uni-professional or uni-disciplinary focus.

In addition, the project was grounded in a very comprehensive, and published, literature review. In my view this gave it significant advantages. In many other projects of one-to-two years duration, if a literature review is done at all, it may often be truncated or become superficial because the project requires certain time scales. These determine when activities have to start and when deliverables have to materialise. Additionally, course cycles in universities require certain events to happen at precise times, examinations for example. These constraints are not always commensurate with well-founded evidence-based activity. (see also discussion in Section 6.3)

Of the four project outcomes, one in particular seems particularly ambitious. This is the pursuit of
“a strategic change within the systems of tertiary nurse education and clinical supervision in healthcare organizations, as well as greater recognition of their potential contributions” (Proposal p5). This outcome is very broad and requires almost a cultural change for it to be achieved with any degree of effectiveness. Also, it is highly unlikely that an evaluation of the project by one person could adequately gauge how well it might have been achieved. In the event I decided to frame a question around this to all stakeholders in the interviews.

The dissemination strategy included the appointment of a senior person in education and training of nurses in Queensland to the Reference Group. This seems like a useful strategy to use in other projects. In the event, that person had to leave the group for work related issues.

Their role in dissemination may be able to be absorbed into the project team. The major issue here for evaluation, and for the OLT, is the estimation of risks and benefits to the team of appointing key people that could assist in project dissemination and what happens if they leave the project. For example, although this may be 'over-kill' on some projects, it may be a useful strategy to ask OLT project applicants to identify at least two people on their reference group who could not only guide the project but assist in application of its findings, and ask for one to be a reserve.

6.2 How the team performed and the development of team members' capacities

The team clearly functioned in a collaborative, cooperative and effective manner. They exhibited a high degree of dedication to the task and project outcomes.

An example of this is the meeting that took place in February 2011 to refine the best-practice guidelines (BPG). At this time the BPG had already been written and a paper had been submitted to *Nurse Education Today*. Many projects would have set about the implementation process from that point. But this team were interested also in tailoring the BPG to the wide variety of environments chosen to test the implementation process. As a result the team convened to further discuss the BPG with implementation-site coordinators. The report to the implementation sites of that meeting indicates:

“We endeavoured to examine the BPGs in view of your (*the implementation sites*) descriptions of the practices at each of the four sites and at the same time draw out the positive and negative aspects of the OSCE process. It was apparent that amendments are needed based on this exercise.” (Map of OSCE BPG outcomes Version 5 June Suggestion by MM 2011, p1).

What resulted was the development of a new set of BPGs that were better matched to a range of settings, reprioritised in terms of their focus, and split into more achievable directives through the addition of a further Guideline on student practice in supportive environments. (see Final Report Section 5.1). In addition, each guideline now has a statement of educational principles behind it and some definition of practical outcomes (Section 5.2).

In my view, and evidence from interviews strongly suggests that, this workshop had a major effect on the project team (including the site co-ordinators). It gave the team a chance to further refine its perceptions of the BPG. It gave all stakeholders a chance to contribute, and it showed that the design was malleable enough to integrate specific site-based requirements into the project plan as a whole.

Evidence from the interviews repeatedly underlined the cohesive nature of this team. This cohesion was enabled through open and responsive, but strong academic and professional leadership that accommodated local constraints. Interviewees were universally happy and admiring, of the project leadership. I would venture to add that the fact that the academic foundations for the project were so strong, and that the team had worked together previously, probably meant that the initial processes of team formation had been completed before the project commenced. Nevertheless the strategies for inducting the site co-ordinators were

impressive (see quote below), with the initial BPG review workshop pivotal.

“So there were site visits, and detailed interviews with the sites, with the nursing academics who were using OSCEs. That was around gathering information that goes into the process, and really validating what we had collected and identified. It was about testing out our best practice guidelines, against ..., if I call it a reality check, does that make sense to you?” (Site Co-ordinator 1)

6.3 The Implementation Process and a New Conceptualisation for OSCEs

I gathered considerable evidence that the BPG were very helpful in almost all the clinical contexts in the project.

The strategies that the team used to disseminate the guidelines in order to distill a suitable generic framework are comprehensively described in the project report.

There was wide agreement from all stakeholders that the guidelines placed the OSCE ‘technology’ into a conceptually new light that made them transformational for the nursing context. Furthermore there was wide understanding that all the BPG were useful in those contexts and that if one or more of the guidelines were not followed, then it would be unlikely that the translation process would be entirely satisfactory.

Interviewer: Were some guidelines more effective than others, do you think?

Respondent: No, I think what we were able to demonstrate was that you needed the full kahuna. If you were missing one of those guidelines then there was a good chance it wouldn't be put together well.

Interviewer: Oh, okay. And you had examples where that happened?

Respondent: I think we had all had the experience that we could reflect on where we had done OSCEs where we hadn't done one of these steps in the past, and we could readily relay what didn't work so well and why we had adjusted individually what we had done. And by bringing all of those experiences to the table we had a couple of really good, in depth discussions around our experience and our views and how that informed our commentary on the literature and what we had learnt from our own practice, and that really helped draft up the first round of the guidelines and from there we were able to take it further. (Site Co-ordinator 1)

A key factor that made the OSCE transformational was the team's capacity to integrate the ‘whole patient’ philosophy of nursing into the procedurally and medically biased framework of the OSCE. In addition the team built a novel framework around what should guide the choice of an OSCE as one apposite mode of assessment, which took account of nursing priorities, without jettisoning the basic structural characteristics of the OSCE. One respondent explored this issue, and her response echoes and resonates with my thinking on the depth of the foundations of this project.

"... it's interesting, because I have had colleagues in medicine that say 'well why would this sort of project be funded when they're so well established in other disciplines?' And I think what it highlights is that so much of what is done around nursing schools around the country is that, 'yes, that's a good idea, so we will just do it'. And people don't actually have enough time to synthesise the literature because there is a lot of literature out there. And so what this project was about was actually synthesising the literature, saying this is what's important and then taking it to people. Because what we actually did find when we took it to people was that, well this is what best practice is, and they looked and actually went, well we didn't do that. Now I know you're looking at me going, well, how did that actually happen? But the bottom line is that in a lot of academic worlds, people are given a subject and they are given some broad guidelines, but there's not a lot of oversight of what's actually happening, and whether the people are drawing on what is best, and the whole sort of peer review. And so there's a lot of ad hoc work going on. So, from that point of view, in an ideal world, I can see that something like this, there wouldn't be a lot of value. But the reality is we don't live in an ideal world and so, there was actually some value in it, because when we took a lot of these best practice guidelines out to these sites, they went oh! That's great!" (Team Member 1)

There are two interesting elements in this passage.

First, the notion that projects may need a targeted and time-consuming literature review, and an extended debate about how the literature could best be framed and used. In many projects of this nature the literature is constrained by the activity start date and may well be incomplete when this commences. Also it is not uncommon for the literature review to be done by a research assistant or project officer specifically commissioned for the project. In this project experienced members of academic faculty engaged with the concepts that the literature espoused.

Second the debate about OSCEs has previously been intense in nursing, where the apparent emphasis of the OSCE on short, procedurally focussed, elements of medicine, has been questioned in some quarters. (Mårtensson & Löfmark, 2013). However, in medicine the debate around short vs long (Norcini, 2002) has now shifted to a debate about the assessment of competence (the clinician can do it in an examination) vs performance (the clinician does do it in real practice). As a result workplace-based assessment is now common in medicine at a postgraduate level, but has been developed in a very structured framework (Crossley & Jolly, 2012). This project essentially authenticated a move into uncharted territory for the nursing test sites – making the OSCE longer.

"... the use of OSCES traditionally in medicine are for ...skills, or short segments of a particular interaction. So, a particular conversation around history taking, or a particular clinical examination, or a diagnosis step, or a procedural skills step. What these nursing OSCES were doing (was) to look at how you integrated the knowledge and practice into a set of activities, you are able to demonstrate that theory into practice, from end to end. And so, for example, the remote area nurse consultation was a consultation from connecting with the client, taking history, doing an examination, formulating some sort of diagnosis, working out a management plan with the patient and closing off the consult. So it was end to end, and similarly, I think, with the midwifery

students and some of the other nursing students, it was really about how you can apply OSCEs to this broader, richer environment, where you're wanting the students to demonstrate, in this ... standard patient or simulated environment where they are able to put it all together. Get insight into their practice, and it's about providing them with that opportunity for reflection into their practice.” (Site co-ordinator 1)

Interviewer: Okay. So that means that, in terms of the way you're moving these OSCES, they're actually a lot longer than most?

Respondent: I think that's the significance, that you use OSCES that are longer. It's been well demonstrated that you can use them for short assessment, and you can use them for longer assessment very effectively.

The medical view about the length of an OSCE was originally founded on research on examination processes, which showed that higher reliability was to be gained by taking many short samples of activity over a large number of patients. For example this respondent had a guarded view on this:

“I'm horrified about the way OSCEs were perceived. It's a totally different approach, not an OSCE in any sense that a medical person would know them. Instead of short structured stations, they would use a long case or a full assessment. The nurses didn't want to change that, they wanted to call them OSCES, but didn't want to change them. Nursing culture is very different from medicine, they are wary about trying to leap too far toward the medical direction. One of the major achievements of this project is that it significantly advanced clinical assessments in nursing.”

B: What are the advances?

Clarity around assessments and how they relate to the curriculum. Its also as much about good teaching as improving the rigour of assessment. (Team Member)

As yet, the analyses that would show that the gain from increasing length in nursing OSCEs outweighs the loss induced by fewer clinical cases have not, to my knowledge, been done. Furthermore, the focus in nursing is somewhat different from that in medicine and the ‘crossover’ in territory, although substantial in some areas, such as communication skills, may not be as great as is often assumed from an external viewpoint.

The OLT has funded many fellowships targeted at workplace-based learning and workplace-based assessment, but there is probably much to be gained from engendering a discussion between the health professions, who share contexts much more intimately than most other professions, on these two facets of education.

6.4 The implementation of guidelines

My analysis of the project proposal identified that the Project was about the team developing a framework around the implementation of guidelines. However at the time I did this (September 2012) much of the survey data collected was frequently about the quality of OSCEs generated by the project rather than the implementation itself. I therefore included a question to the interviewees on this topic.

It was clear that some team members shared my view, but emphasised that there were many lessons in the project data that had yet to be extracted:

“ ...well, and this is the interesting thing and is what I really need to talk to X about, And so Y and I went back to the project and I just went back to the initial OLT grant. And the OLT grant was around a framework for implementation. Now what we’ve done, is we’ve taken the OSCE out there, we’ve discussed it with sites, we’ve implemented, and what we’ve done is we’ve got a lot of research findings about how valuable people find it from the staff and the students. So now we have a lot ... of data that we can write up in some sort of research project. But if we go back to the original project it said a ‘framework for implementation’, so what I’ve been trying to do, is trying to draw out what all this data says in relation to what is it valuable around the implementation. And we probably haven’t, I don’t think... it’s there, but it’s all covert, not overt in the report. And I actually... we’ve got a face to face meeting next Friday and I need to talk to X and Y beforehand because I think what we do need with that face to face is to go right back and say okay, we’ve reorganised the OSCEs so it’s more systematic. But we need to say, okay from an implementation perspective, what are some other pointers, what are some other learnings around each of these, as a progression analysis and more to do with the, like, I’m thinking about the sorts of discussions... the discussions are there, they just haven’t been drawn out into something meaningful that we can present back to the OLT. And I’m sort of thinking that the first thing is optimism, like, you know, everyone is really appreciative of the fact that, okay, here’s something that can become more useful. And then I’m thinking something like overcoming obstacles, because every time you talk to these areas... and this is what Y has from her learnings... it’s all in Y’s head, She’s talked about the obstacles that are all around timing, it’s all around getting information to the students, the logistic obstacles of how you actually implement it. And then I’m thinking that the next one is about the guiding process of probably ... teasing out more what guidance they gave to the teams around structuring it. (Team Member)

Clearly this conversation validated this team member’s feeling that the project held greater potential for developing useful implementation strategies. The project report contains a substantial and substantive section on the “Four O” Model for implementation, that adequately reflects this potential, and several papers and conference presentations are in preparation. The “Four O” model emphasises opportunity, organisation, oversight and outcomes, with the oversight element specifying the need for essential academic input into local implementation.

6.5 Systemic Change

One of the major outcomes identified for the project was the initiation of systemic change in the academic and clinical nursing domains around the concepts of ‘the OSCE’ as one potential contributor to this change process. This was reiterated in the project report :

“A strategic change within the systems of tertiary nurse education and clinical supervision in healthcare organisations, as well as greater recognition of their potential contributions – see dissemination strategies as outlined in 7.4.” (Report p6)

I interviewed one member of the Reference Group who, at the time of the interview, questioned the development of the dissemination strategy in relation to this outcome. However in Section 7.4 of the report a number of strategies identified by the interviewee have been enacted. Certainly an assertive approach to dissemination is warranted if any systemic change is to take place on the back of this project.

In the interviews, few of the respondents could identify the specific elements of systemic change that might ensue from this project, and yet there is great interest in this area at the moment. Co-ordination with other activities, such as the OLT project at Holmesglen Institute on assessment strategies within the new BN degree, and an ARC project on changing the nursing environment to be more receptive to learning (e.g. Newton et al, 2011) would be warranted.

This issue also raises concerns about the perceived need for applicants to OLT to generate broad and sweeping goals in order to attract funding. There is little doubt that systemic change is needed in healthcare education that would be far reaching, require enormous resources, but might generate further challenges, as other reforms elsewhere have done (Collins J, 2010). Clearly it is also appropriate to be ambitious for projects that interest us and seem to demand attention such as this one. However the trenchant issues in healthcare that inhibit students from learning and being assessed effectively are deep rooted, and stem from authentic tensions between service and education, between medical research and healthcare education, and between public and private sectors. To achieve the right balance, some guidance on the appropriate standpoint to express in applications on the power of projects to affect the real world might be quite useful and relieve project designers from setting goals that, in all probability, with the level of funding available, they will be unable to meet.

6.5 The Team's Experience

Every single respondent in the interviews praised the performance of the team. To paraphrase the descriptions; "best team I've ever worked in"; the "most engaging project I could have wished for"; "the most successful ALTC project I've encountered", would probably sum up the majority of plaudits.

Investigating why this occurred really underlined the features that I have already identified elsewhere in this report: firm foundations, a functional team, good induction processes, time to digest new information and new messages, dialogue with the test sites, good leadership and energetic and pro-active project management. This quote is typical:

"This is my third and best experience in one of these grants. Organisation, collegiality, input, timely follow up, report writing, planning ahead etc. Very positive. There's probably potential publications -8 or 9- with the lead from each site as their own lead author"

6.6 The site experience

One question addressed whether all sites adopted the BPG in the same way. Most respondents indicated that they thought this had happened, but that each site might have used the OSCEs, irrespective of the BPG, in slightly different ways. However one was not so sure:

“My impression is that some BPGs were more successful than others. At Site A the OSCE was used as a learning aid for a large cohort, (because we have to get large numbers through the formative assessment process) and it helps them learn the relevance of having students playing the role of someone other than a nurse during the OSCE etc. But this may have limited relevance to learning for ALL students. Not all BPGs were done justice to at all sites- each site has shortcomings” (Team member 5)

It should not be surprising that some sites may have not used all guidelines, since guidelines were modified in line with feedback from different sites. But it might be one limitation of this evaluation that I was unable in the time frame to investigate this further.

Summary

In summary, evidence suggests this project was engaging, diligently executed, inclusive, academically well founded, and appreciated by a wide community of professional educators in both rural and metropolitan settings. The project report is detailed, well targeted to its audience, and indicates both the successes and limitations of the project. Some limitations identified late in the project in relation to the goals and deliverables were expertly addressed.

This evaluation report has identified a number of issues that might be taken further by stakeholders:

- The original BPG were well founded on the back of good academic practice.
- The project proposal identified important synergies between work done in medicine and strategies needed in nursing to improve the articulation of assessment with learning.
- One of the identified project outcomes, systemic change in healthcare/education systems cannot be achieved by single projects of this nature. Some guidance on the appropriate standpoint to take in applications, on the power of projects to affect the real world, might be quite useful and relieve project designers from setting goals that, in all probability, with the level of funding available, they will be unable to meet.
- The project process was enhanced by the use of an inter-professional expert reference group.
- OLT project applicants should identify at least two people on their reference group who could not only guide the project but also assist in furthering application of its findings.
- Specifically, the workshops for implementation sites were a significant contributor to the success of the project.
- The team cohesion was enhanced by open and responsive but strong academic and professional leadership, that accommodated local constraints. In this project experienced members of academic faculty engaged with the concepts that the literature espoused.
- There was wide agreement from all stakeholders that the guidelines placed the OSCE ‘technology’ into a conceptually new light that made them transformational for the nursing context. A key factor in this was the team’s capacity to integrate the ‘whole patient’ philosophy of nursing into the procedurally and medically biased framework

of the OSCE.

- Analyses that would show that the gain from increasing length in nursing OSCEs outweighs the loss induced by sampling fewer clinical cases have not yet been done. Such work could be both academically and practically useful.
- There would be substantial gains from engendering a discussion between the health professions on approaches to workplace-based learning and workplace-based assessment .
- The “Four O” model emphasises opportunity, organisation, oversight and outcomes, with the oversight element specifying the need for essential academic input into local implementation, and could be one element of an inter-professional discussion..

6.8 References

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