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ABSTRACTS

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Abstract 01

Peer-based formative assessment: valuing non-assessed experience

Peter Barton, Phil Cotton

Background: Healthcare students report anxiety regarding inadequate preparation for summative OSCEs. Answering these concerns the University of Glasgow re-introduced a formative OSCE in 2007, using a triadic formula for pedagogic and practical reasons. The previous year 1 formative OSCE was removed in 2004 due to examiner recruitment difficulties.

The outcomes of the intervention were analysed quantitatively, through cohort comparisons in the subsequent year 2 summative OSCE, and qualitatively through evaluation data and free text comments.

Objectives:

1. To reduce the student anxiety about sitting summative OSCE
2. To make students aware how to demonstrate clinical competence in an OSCE.
3. To determine whether the experience of prior rehearsal of an OSCE, with insights into the difficulties of assessing behaviour, would improve student's own performance in the subsequent year 2 OSCE.

Methods: We devised a formative seven station OSCE for May 2007. The clinical skills website published assessment exemplars for students. Students received an OSCE briefing paper and an examiner briefing (similar to Faculty's internal examiner briefing), that emphasised the neutrality and objectivity of assessment.

Each student rotated through three distinct roles during three consecutive circuits:

1. Volunteer patient
2. Examiner and
3. Candidate.

Quantitative data were the performance scores, for 6 common stations, in the summative year 2 OSCE for the previous cohort (sitting in 2007) and the first intervention cohort (sitting in 2008). Qualitative data used were the free text comments of the anonymous on-line questionnaires (2007, 2008, and 2009).

Results: In 2007, 155 students (69%) evaluated this session, the highest evaluation response to any activity in Year 1. The analyses of the students' questionnaire (including one hundred and three free text comments), matched the staff-student debriefing, and Faculty's anecdotal observations, and confirmed an extremely valuable learning experience.

Evaluations (40% response) however became quite negative in 2008 with different administration of the examination, and its reduction to 5 stations. The free text (nineteen)

comments were consistent with 2007, though more negative towards “administration”. In 2009, extremely positive evaluations returned, after a renewed seven station OSCE, once again administered by clinical skills staff. Free text comments (thirty nine) were consistent.

Statistical analysis of 6 stations common to 2007 and 2008 diets failed to demonstrate the intervention exerting any significant learning effect on the Year 2 OSCE. Students in the intervention cohort scored higher on two, worse on two and the same on two of the stations compared with the non-intervention cohort.

Free text comments (166 entries over the three years) were analysed thematically using NVivo software and nodes created under “feelings”, “knowledge”, and “improvements”. These confirmed a highly positive experience, gains in students’ comprehension of Faculty’s OSCE expectations, and an intolerance of inefficiencies during the administration of the OSCE.

Conclusion: Despite the failure to demonstrate improvement in learning outcomes the positive experiential data justifies continuing the intervention. It responds to student concerns for demonstrable OSCE transparency and improves assessment accountability. And it is fun!!

Abstract 02

PBL tutorials: senior students value facilitators

Andrew Beveridge & Peter Barton

Introduction: Problem based learning (PBL) is used extensively in the undergraduate medical course at Monash University. Throughout the course the method of PBL delivery varies significantly. Acronyms for the different methods of PBL delivery at Monash include PCL (patient centred learning) PBL, index cases, and PACES (Professional Attitudes and Cultural Educational Studies). PACES were introduced in 2010 into year 4 to address student concerns with previous index case teaching, including issues with both the method of delivery and their content. Additionally we wanted to develop an effective method to foster learning on cultural issues and to formatively assess aspects of professionalism. Having introduced these changes, we felt it was prudent to determine whether these changes in the PBL delivery method were acceptable to the student body, and whether this format of delivery facilitated cultural teaching.

Thus the objectives of this study were to:

1. Evaluate a valid questionnaire for PBL style education on professional values.
2. Identify senior students perceptions of the locus of learning
3. Clarify the senior students expectations of the tutor's roles

Methods: Four groups of 14 students, who were supervised by four different tutors, completed 3 PACES tutorials over four weeks that enabled the student groups to experience this form of PBL teaching. A simple anonymous two page questionnaire was drafted and provided for students to complete in their tutorial groups at the conclusion of this series of PACES teaching to look at the student perception of both the method of delivery (compared to previous PBL methods) and the content of the material covered (was this the best way to engage with this material?).

Results: Fifty-five students out of the cohort of 56 senior students (99% response) completed the questionnaire. There was significant positive consensus (as defined by neutral, agree, or strongly agree) that students preferred to be given learning objectives at the start, preferred everyone was given different tasks, wanted the tutor to be able to comment on the students research, and preferred the tutorial to focus around peer or tutor questions. There was negativity towards methodically going through the material each student had researched with ambivalence towards students running the tutorial and defining their own learning objectives. Qualitative comments identified a desire for smaller tutorial groups and the difficulty in determining what students should know (breadth and depth). Most students felt that the content covered was most appropriately covered by this method. These tutorials provide an effective forum for engaging with and critiquing professionalism.

Discussion and Conclusion: Senior undergraduate medical students are still uncertain as to what they should be learning and therefore prefer to be given learning objectives. They also appreciate tutorials where knowledge or gaps can be identified that are aided by peer to peer and tutor to peer questioning. However, although PACES encourages professionalism, this study suggests the need to investigate whether the current medical program is enabling development of 'adult' learning behaviour and professionalism.

Abstract 03

LIV-NET Learning for IMGs – Victorian Network

Beverley Bird, George Kotsanas, Johannes Wenzel, Sean Fabri, , Kylie Nicholls
Brian Jolly,

Introduction: LIV-NET *Learning for IMGs Victorian Network* is a Department of Health Victoria funded ‘Developing Organizational Capacity’ Program initiative. LIV-NET will utilise web-based technologies, including WebEx and Equella, to provide International Medical Graduates (IMGs) and their supervisors in Victorian outer metropolitan, regional and rural hospitals, with access to contemporary medical education and resources at a time and in a location which is convenient for them.

LIV-NET builds on a contemporary study *The Real Challenges of IMGs Induction into Australia’s Medical Workforce: A Victorian Public Hospital Perspective of Standard Pathway IMG Supervision* which suggests that there are substantial inequities across the State with regard to IMG supervision and educational resources. In addition, many doctors are unable to attend scheduled sessions because of roster clashes or inflexible ward duty assignments. A mapping exercise undertaken as part of the *Real Challenges* study identified exemplar educational resources and programs that could be shared across the state.

Methods: The project seeks to implement strategies to:

- Share the exemplary educational and up-skilling sessions, resources and supervisor education programs that have already been developed with IMGs and their supervisors across the State;
- Make these sessions available at a time and location where IMGs and other hospital doctors in training are able to participate with colleagues across the State simultaneously or at a later time (for example in an evening timeslot) from home or at their hospital.
- Facilitate discussion among participants and presenters;
- Engage in activities such as Case Based Discussions across the State in real time,
- Assist IMGs to meet eligibility requirements for general registration; and,
- Facilitate a state-wide learning environment networking amongst IMGs.

Steering group planning is proceeding with the following stages underway or nearing completion:

- Identification of existing IMG focussed educational programs suitable for distribution via LIV-NET technologies, and which are aligned with identified IMG learning needs;
- Recruitment of program presenters
- In-house testing of the technologies;
- Raising awareness of LIV-NET to IMG cohorts across the State of Victoria;
- Field-testing of the technology via delivery of three ‘live’ pilot sessions.

Full roll-out of LIV-NET is expected in October 2010.

Findings and discussion: As LIV-NET is under development and results of the roll-out of the live program are not yet available, the presenters would like to invite audience comment and feedback relating to:

- Whether this web-based educational delivery is suitable for all doctors in training and their supervisors?
- Are there wider implications for this type of relatively inexpensive interactive delivery for other medical, health professional and inter professional education?
- What are the drawbacks and pitfalls for a program such as LIV- NET?
- What experiences have audience members had with interactive web-based program delivery that could inform this and other similar initiatives?
- What junior doctor capacity building opportunities may be addressed via LIV-NET?

Conclusions: LIV-NET has the potential to provide more flexible learning opportunities for IMGs and junior doctors and facilitate state-wide availability of excellent resources and programs developed locally.

Abstract 04

Attitudes of undergraduate health science students' towards patients with intellectual disability, substance abuse and acute mental illness: A cross-sectional study

Malcolm Boyle, Ted Brown, Brett Williams, Lisa McKenna, Liz Molloy, Belinda Lewis

Introduction: There is a long history of certain medical conditions being associated with stigma, stereotypes, and negative attitudes. Research has shown that such attitudes can have a detrimental effect on the patients suffering a stigmatised medical condition and can even flow on to impact their family. The objective of this study was to measure, using the *Medical Condition Regard Scale*, the attitudes about patients with intellectual disability, substance abuse and acute mental illness held by undergraduate students enrolled in six different health-related courses at Monash University Peninsula Campus.

Methods: A convenience sample of undergraduate students enrolled in six health-related courses in first, second and third years at Monash University Peninsula Campus were surveyed. The *Medical Condition Regard Scale* (MCRS) was administered to students – a valid and reliable, self-reported measure of attitudes – along with a demographic form. Mean scores, t-tests, and ANOVA were used to analyse student attitudes.

Results: 549 students participated. Statistically significant differences in relation to regard and attitudes were found between the six health-related courses for each of the three medical conditions – intellectual disability ($p<0.002$), substance abuse ($p<0.033$) and acute mental illness ($p<0.023$). There were also substantial differences in the mean MCRS scores for these three medical conditions. Intellectual disability (mean=51.98, SD=7.97) and acute mental illness (mean=51.87, SD=7.72) were viewed significantly more positively than substance abuse (mean=46.37, SD=8.80) as a medical condition.

The item 'I feel especially compassionate toward patients like this' differed between the medical conditions and was particularly low for substance abuse (mean=3.36) than it was for either intellectual disability (mean=4.25) or acute mental illness (mean=4.29). Because items were rated on a 6-point Likert scale scores below 3.5 were indicative of negative attitudes.

Discussion: Overall the findings show students have a high regard for both acute mental illness and intellectual disability conditions. Substance abuse, however, received a comparatively low regard. Across all the medical conditions, students answered in such a way that was indicative of a desire to act professionally with patients. Items such as 'Patients like this irritate me' and 'Treating patients like this is a waste of medical dollars' were answered favourably across all the medical conditions, showing an intention to be fair and responsible in their conduct and interactions with patients.

These differences found between the six health-related courses may be the result of how students from each of the professions view their role in healthcare and the vantage their profession provides from which to view patients. Data provide sufficient evidence to show that there is a difference in views between the professions and, more importantly, that the views these students have impact on their attitudes and perceptions toward different medical conditions.

Conclusion: The results suggest that undergraduate health-related students as a group have a strong regard for intellectual disability and acute mental illness conditions, but not for the substance abuse condition. The results suggest that health-related students distinguish between patients with medical conditions perceived to be self-inflicted and that such patients are not as worthy of compassion and effort beyond professional expectations.

Abstract 05

Student access to information technology for participation in new electronic education programs: A cross-sectional study

Malcolm Boyle, Ted Brown, Brett Williams, Lisa McKenna, Claire Palermo, Liz Molloy, Michael Storr

Introduction: In recent years the higher education sector has seen a rapid increase in the availability and integration of technology such as pen-based computing (Tablet PCs) and collaborative software such as Classroom Presenter (CP3) and the Monash developed MeTL. With an increased reliance on students to have a laptop computer and Internet access it is therefore timely to ascertain if students have this technology. The objective of this study was to assess the access to information technology (IT) of Monash University undergraduate students from six different health-related courses.

Methods: A convenience sample of undergraduate students enrolled in six health-related courses (occupational therapy, physiotherapy, emergency health (paramedic), nursing/emergency health (paramedic), nutrition and dietetics, and midwifery) from any year, at Monash University Peninsula Campus and Monash Medical Centre were surveyed about their access to IT using a paper-based questionnaire. Students were eligible for inclusion if they were enrolled in one of the six health-related courses. Ethics approval was granted.

Results: 473 students participated. Most students were from occupational therapy 36%, emergency health (paramedic) 21% and nutrition and dietetics 19%. A majority were enrolled in first year 48% and second year 29%, the remainder in third and fourth year. 85% of students were less than 25 years of age. 97% of students had Internet access at their residence while 92% had unlimited access to a computer. Most students owned a laptop 64%, a desktop 13%, a tablet 1.5% and 7% not owning any type of computer. Student computers were predominately less than two years old, 60%, with 19% of students' computers being two to three years old. 59% of students reported they would not be purchasing a new laptop/tablet computer within the next 18 months, while 12% of students stating they had plans to purchase a new laptop within the next 18 months. The majority of students, 64%, who indicated they were planning to purchase a laptop, stated they would need some kind of financial assistance to make the purchase. Nine percent of all students stated they would hire a tablet from Monash to be involved in the myLearningSpace Project.

Discussion: Overall the findings demonstrate that the undergraduate students who participated in the study have unlimited access to a relatively new computer with Internet access. A response of concern is the very low percentage of students who stated they would hire a tablet computer to participate in the myLearningSpace Project. With just under two thirds of students able to take a computer into a lecture theatre and an even smaller number considering the hire of a tablet computer, the uptake of involvement in the myLearningSpace Project would appear to be less than optimal. This issue requires further exploration to ascertain if lecturers are using tablet computers in their lectures and making full use of the presentation software.

Conclusion: The results suggest that undergraduate students enrolled in health-related courses have unlimited access to a relatively new computer with internet access with a low

percentage of students considering the hire of a tablet computer to be involved with the myLearningSpace Project.

Abstract 06

‘Multidisciplinary responses to mental health crises’: An education program for interprofessional education

Leanne Boyd, Jade Sheen, Matthew Johnson, Kathryn Eastwood

Background: Consumer rights, suicide management and continuity of care have been raised as national mental health priorities. A lack of teamwork and interagency liaison, limited adherence to the Mental Health Act (MHA), limited de-escalation skills and a limited understanding of the experiences of consumers are systemic issues recognised within the recent Victorian Auditor-General report.

Objectives: This project aimed to address these issues by creating an interactive education package focusing on the multidisciplinary management of mental health crises such as suicide, to be integrated into existing mental health and interprofessional units within the Faculty of Medicine, Nursing and Health Sciences at Monash University.

Methods: An education program with four modules was developed after extensive consultation with key stakeholders. Each module consists of a one hour lecture with embedded video clips and scenarios and a one hour interactive tutorial with activities such as role play, case based learning and group discussion. The program was piloted with Double Degree (Nursing/Paramedic) students. Feedback was obtained through focus groups and surveys.

Findings: Focus group and survey analysis revealed that the program was well received by participants. Strategies to improve the program were identified and modifications were made prior to official implementation of the program.

Conclusions: The preliminary findings show that the program can be successfully integrated into existing curricula of undergraduate health science courses. With continued broader dissemination, this program has the potential to improve outcomes for consumers and their carers during a mental health crisis within the pre-hospital setting. An enhanced understanding of key stakeholder roles and responsibilities has the potential to enhance teamwork, facilitate interagency collaboration and optimize the care of both consumers and their families.

Acknowledgements: The research team would like to acknowledge the assistance of the funding body the Department of Health and Ageing

Abstract 07

Predictors of empathy in undergraduate health science students

Ted Brown, Malcolm Boyle, Brett Williams, Andrew Molloy, Claire Palermo, Lisa McKenna, Liz Molloy

Background: The significance of both empathy and effective communication as key components in the provision of healthcare services is widely acknowledged. It is important, therefore, to promote those communication styles which facilitate an empathetic understanding amongst health science students.

Objective: This study explores whether listening and communication styles are predictive of empathy amongst health science students.

Methods: A cross-sectional study of 860 undergraduate health science students using paper based versions of the *Jefferson Scale of Physician Empathy – Health Professional Version* (JSPE), the *Listening styles Profile* (LSP), the *Communicator Styles Measure* (CSM) and a brief demographic questionnaire was conducted. Two stepwise linear regression analyses were completed used with the empathy construct as the dependent variable and listening styles and communication styles as the two sets of independent variables.

Results: As there was a statistically significant difference in empathy between males and females, gender was controlled for in both regression models. In the first model, the *People* and *Time* listening styles were found to be predictive of empathy, accounting for 20.3% of the total variance. In the second model, both the *Friendly* and *Relaxed* communication styles were predictive of empathy, accounting for 9.7% of the total variance.

Conclusion: Findings indicate that People and Time listening styles as well as the Friendly and Relaxed communication styles were significant predictors of empathy in health science students. The findings suggest that promoting effective communication amongst health science students may improve their ability to empathize. Drawing on the results, strategies such as taking a genuine interest in patients, making an effort to display a friendly mien and avoiding any appearance of being in a rush are likely to promote positive relations between students and the patients they engage with.

Abstract 08

Saudi Arabian nurses' experience of a Masters in Nursing in a Western setting: An exploratory qualitative study

Rosemary Clerehan, Louise McCall, Lisa Mc Kenna, Khalid Alshahrani

Introduction: Saudi Arabian health professionals are being generously funded by their Government to develop their knowledge at Group of Eight universities in Australia, so it is surprising that research into these students' experience is scant. A steadily increasing number are enrolling in postgraduate courses in the Faculty. The University and the Faculty are sponsoring exploratory research into the learning experience of students from the Middle East and Gulf countries with a view to identifying positive and negative aspects which might serve to help or hinder successful outcomes, in terms of progress and assessment. It is also hoped to gain an understanding of how the students' learning develops over their period of candidature, and to identify if their experience differs from that of other international postgraduate students as represented in the published literature.

Methods: Ten Master of Nursing students from Saudi Arabia responded to an email invitation, as part of a larger project. The English-language interviews were recorded and transcribed and the transcripts were analysed in different ways by three of the researchers for salient themes; the analysis was then re-organised and amalgamated into one account, differences being resolved by discussion.

The approach is underpinned by an understanding of learning as situated within a context or community of practice.¹ Therefore there is a focus on the approach the student takes to academic tasks in light of their perceived audience and their expectations of the disciplinary context.²

Results: Ten Masters students (one Midwifery) from two campuses were interviewed. They portrayed themselves as studying, learning and researching at the intersection of several cultures – their former nursing practice environment; what they understood of the corresponding environment in Australia; their current academic context in the School of Nursing; and their former academic contexts in Saudi Arabia or in other Australian universities.

Three principal themes were identified: challenges, strategies and outcomes. Categories within the first theme were: expectations and transition; approaches to study and researching; relations with lecturers; and family-study balance. Strategies included: confronting culture (including educational) culture shock; handling study; dealing with lecturers; and locating the self and other learning resources. The outcomes involved dealing with new knowledge; applications of learning; and becoming an ongoing learner.

Discussion and Conclusion: The study is a part of a larger project which will continue to investigate the progress of postgraduate Middle Eastern and Gulf students and the factors which make for more and less successful outcomes. Their strong perceptions of the differences between their educational system and that of Australia, their lack of experience in research and writing, and their relative youth, combined with complex family responsibilities, are counterbalanced by motivation and enthusiasm, and their openness to being change agents upon return to their home country.

References:

1. Jones C. Turner J, Street B. (Eds.) *Students Writing in the University: Cultural and Epistemological Issues*. 1999; Amsterdam: John Benjamins.
2. Candlin CN. (Researching writing in the academy: Participants, texts, processes and practices. In C. N. Candlin, S. Gollin, G. A. Plum, S. Spinks, & V. Stuart-Smith, *Researching Academic Literacies* (pp. 3-28). 1998; Sydney: National Centre for English Language Teaching and Research, Macquarie University.

Abstract 09

Longitudinal Rural Placements: Impact on Hospital Clinical Supervisors

Ms Marnie Connolly, Dr Linda Sweet, Associate Professor David Campbell

Introduction: The Commonwealth Rural Clinical School Program was established to provide for increased numbers of medical students to experience clinical placements in rural communities, as one of a variety of initiatives to address the medical workforce shortages in rural Australia. From this initiative The East Gippsland Regional Clinical School (EGRCS) was established as part of the Monash University School of Rural Health (SRH). The EGRCS offers up to 10 year-long clinical placements to medical students wanting to undertake their fourth year curriculum in the East Gippsland Region. The students are attached to a General Practice clinic for the entire academic year and travel to the local hospitals for further learning experiences. The teaching Hospitals associated with the EGRCS program are Bairnsdale Regional Health Service and Orbost Regional Health.

In the hospital setting the fourth year students are supervised by experienced medical and nursing clinicians who provide support, education and supervision. Whilst there has been studies researching the impact of medical students undertaking longitudinal placements in the General Practice setting, little is known about the impact of fourth year undergraduate medical students undertaking longitudinal placements on their clinical supervisor's education and learning in the hospital setting. Furthermore, our program is unique because of the *multidisciplinary approach* adopted for medical student supervision.

Methods: In order to determine the impact on clinical supervisors in the hospital setting the author invited senior nursing and medical staff involved with supervisory responsibilities of fourth year medical students to participate in this study through an interview. The interview aim was to explore and elicit information regarding the educational impact and learning gained, and other benefits if any, from these supervisory responsibilities. Fifteen health professionals participated in this research.

Results: Utilising the thematic analysis three major themes were developed: changes to the supervisor, change in hospital learning culture and student usefulness in the clinical setting. The major educational benefits identified by the clinical supervisors included more reflective practice as a practitioner and to patient care, professional modelling and increased enthusiasm for learning, updated clinical skills and time management issues, and motivation to come to work for further learning interactions. Other educational benefits specific to the hospital supervisor included academic governance, more thoughtful practice, interprofessional support, educational resource for patients and clinical governance. Hospital culture became more vibrant and supervisors reported that patients were receiving additional care and patient knowledge gaps were being fulfilled.

Discussion and Conclusion: This study demonstrated that the interprofessional approach for clinical supervision in the hospital setting enhanced learning for the clinical supervisors and students. Learning together generated an understanding of each other's clinical skill, roles, values and raises an awareness of the importance to work collaborative for better patient outcomes. Longitudinal placements provided the link for

the supervisors to develop symbiotic relationships with the students and students to become familiar to the environment and work alongside their supervisors.

It is hoped that this research can be used by other nursing and medical programs to recognise and help build the symbiotic relationships that are fostered between students, hospital and university.

Abstract 10

Learning styles and preferences: a study of first year undergraduate nursing and midwifery students

Angelo D'Amore, Santhamma James, Eleanor Mitchell

Introduction: Students have varying learning preferences and styles, and may benefit from different styles of teaching. Australian University students come with different educational and cultural backgrounds. They are a mix of school-leavers and mature-age students, students from English- and non-English-speaking backgrounds, and from metropolitan and rural areas. Pedagogical practice needs to be linked to the learning styles of the learner, especially since different discipline areas might attract learners with different learning styles. It is important to assess what teaching styles will best suit this cohort and to determine whether we are meeting their individual needs, as we endeavour to achieve general professional standards.

Aim: To investigate the learning styles and preferences among first year nursing students at ACU, and determine if there is a link between learning styles or learning preferences and different demographic characteristics.

Methods: A questionnaire was developed, which contained demographic questions, the VARK Questionnaire, and the Kolb Learning Style Inventory (LSI). The questionnaire was given to first year Bachelor of Nursing (BN), Bachelor of Arts/Bachelor of Nursing (BA/BN) and Bachelor of Midwifery (BMid) students at the Victorian metropolitan and regional campuses of ACU.

The VARK Questionnaire assesses visual (**V**), aural (**A**), read/write (**R**) and kinaesthetic (**K**) learning preferences and the LSI questionnaire assesses learning styles as converger (abstract conceptualisation (**AC**) and active experimentation (**AE**)), diverger (concrete experience (**CE**) and reflective observation (**RO**)), assimilator (**AC** and **RO**) or accommodator (**CE** and **AE**).

Results: The response rate was approximately 84% (n=345). Overall, the majority of respondents (57%) were shown to be multimodal VARK learners and were mainly divergers (30%) and assimilators (29%). Statistically significant relationships were identified between learning styles or learning preferences and demographic characteristics. These differences included:

- Rural background students are more V and K (VARK) orientated than metropolitan background students.
- Students attending the rural campus are more V and R (VARK) orientated than metropolitan campus students.
- BN students are less AC and more AE (Kolb LSI) orientated than BA/BN students.
- Students who are doing 4-5 units are more AC (Kolb LSI) orientated than students doing 1-2 units.
- English-speaking background students are more V and A (VARK), and AE (Kolb LSI) orientated than non-English-speaking background students, whereas non-English-speaking background students are more CE (Kolb LSI) orientated.
- International students are more CE (Kolb LSI) orientated than Australian students.

- Female students have a greater RO score than male students.
- No differences were seen between students who enter the nursing course straight from secondary education and mature-aged students.

Conclusion: These findings can be applied to improve our current presentation of face-to-face and online course materials to enhance their learning by multimodal approaches and integration of the four fundamental Kolb modes.

Abstract 11

Evolution - conception to current practice: The Occupation, Wellness and Life Satisfaction (OWLS) program

Sue Harman, Rachael Schmidt

Introduction: In 2004 the Occupational Science and Therapy program at Deakin University commenced a pilot of an innovative model of fieldwork placement, the Occupation, Wellness and Life Satisfaction Centre (OWLS) with their first 3rd year student cohort. The aim of the initial pilot was to “establish, implement and evaluate the OWLS program, culminating in the provision of self sustaining ‘Shop Front’ services at the Waterfront campus as well as provision of student driven OT services to communities mainly in the Barwon/South Western region of Victoria, in partnership with local agencies”. It was intended that this could serve as a model that could be extended to other faculty programs within Deakin University.

Program evaluation has been ongoing during the OWLS Program development. Commencing with a pilot study evaluation twelve months after its conception, then again in 2005 as an Honours project investigating the first cohort of Deakin Occupational Science and Therapy graduates and their perceived preparation for practice, in 2006 the supervision of the school-based program was evaluated as part of a Masters project and currently in 2010 an honours project exploring graduates perceptions of the OWLS program.

Methods: In 2004, a Deakin University Strategic Teaching and Learning Grant was secured, providing staff resourcing to develop the program, to conduct focus groups with participating students, questionnaires were distributed to agencies and Deakin staff, and the Canadian Occupational Performance Measure was used to determine clients self-perceived changes in occupational performance.

Results: The presentation will explore the current findings from the current evaluation in light of the themes from the initial pilot, which has shaped the evolution of the OWLS program over five years of operation. Current practice will be explored in relation to literature and current evidence available.

Discussion and Conclusion: The OWLS program is a successful model of an innovative fieldwork model that focuses on non-traditional, role-emerging and project placements. The program has evolved over five years from the initial pilot project to an exciting fieldwork experience contributing to the many new projects and outstanding outcomes achieved by the OWLS students. Some of these outcomes will be presented.

Abstract 012

Innovative assessment - adapting the Mini-CEX to an undergraduate nursing context

Gabrielle Koutoukidis, Leone English, Brian Jolly, Debra Kiegaldie

Introduction: Assessment of professional practice within undergraduate nursing programs entails designing user-friendly tools that assess reliably against a broad set of national competency standards, across a range of clinical contexts. This has proved to be challenging. Clinicians and supervisors often struggle to relate to the plethora of different tools employed by multiple nursing education providers.

In 2009 Holmesglen Institute and Monash University embarked on a three-year research project to develop an assessment framework and tools for implementation within a new Bachelor of Nursing program. The aim was to develop valid and reliable tools that were: innovative; user-friendly; adaptable to multiple clinical contexts and facilitated integrated learning and assessment.

The framework developed has been titled the 'Professional Passport' and comprises four key components: a Professional Portfolio; Objective Structured Clinical Assessments (OSCEs); Multi-Source Assessments; and Mini Health Assessments.

This presentation focuses on the Mini Health Assessment (MHA), based on the Mini-CEX used extensively in post- and increasingly in undergraduate medical education. This tool aims to support and measure the development of students' clinical assessment abilities throughout their degree. The presentation will outline the development, piloting and implementation of the tool in the first two semesters of the program.

Methods: Utilising an action research methodology the MHA tool was piloted in the first semester of the first year of the course with 40 students during a two week community clinical placement. The data on this cohort were collected between October 2009 and January 2010. Analysis on data from individual records, using correlations, and from conducting individual or group interviews with 8 clinical teachers, identified potentially useful properties of such assessments. A modified tool was implemented in the second semester with 29 students during a four-week acute care clinical placement. This additional data will be analysed using generalisability theory to ascertain the measurement characteristics of the new tool.

Results: Results indicated good face and content validity, reasonable construct validity and promising criterion validity. The use of 'capstone' questions to capture underpinning knowledge also worked well and demonstrated good internal consistency. The tool was well received by both Clinical Facilitators and students. Students' performance on the health assessment tool correlated moderately with other assessments and with overall end of term performance.

Analysis also revealed issues related to implementation in the community context including: lack of consistency between assessors in the way they used the tool, and in their level of orientation to the tool. Strategies to address these issues will be described. We

also modified Clinical Facilitator preparation. The presentation will include discussion of calibration methods introduced.

Conclusion: The Mini-CEX can be effectively adapted to the nursing context. While the basic framework of the tool may remain standard across the three years of a nursing degree, close consideration must be applied to ensure appropriateness to learning outcomes at each stage. Integral to the success of this tool is the preparation of Clinical Facilitators and students.

Abstract 013

Investigating the efficacy of practical skill teaching approaches; a comparison of three methods

Stephen Maloney, Sophie Paynter, Michael Storr, Prue Morgan

Introduction: Practical skills are an essential part of health professional education. Traditional didactic practical skill teaching methods can be resource-intensive and may not allow for sufficient student feedback. Alternative methods for teaching practical skills include video tutorials and student self-vodcast (video podcast), however the efficacy of these techniques have not been compared to didactic teaching in health professional education. The aim of this study is to determine the efficacy and acceptability of three practical skill teaching methods: traditional didactic teaching, video tutorial, and student self-vodcast and reflection.

Methods: Year 3 pre-clinical physiotherapy students (n=43) consented to participate in a randomised controlled trial with protective cross-over. Each of three randomly allocated groups was exposed to a different teaching method (didactic, video tutorial or student self-vodcast) for two specific practical skills. Skill performance was assessed by a formative Objective Structured Clinical Examination, and students completed a survey on their experiences of the allocated teaching method.

Results: All three groups were equivalent for academic ability in the preceding semester OSCE examinations. There were no significant differences in performance between teaching method groups for either clinical performance within the formative exam or perception of student satisfaction and educational value.

Conclusion: Well designed video tutorials and student self-vodcast with reflection are comparable to traditional didactic practical skill teaching in student skill acquisition and student acceptability. These alternative practical skill teaching methods should be considered when constructing a health professional curriculum, and may have particular value applied to specific practical skills. The use of alternative practical skill teaching methods will have an impact on resource allocation and successful implementation may depend on institutional information technology capabilities.

Abstract 014

Linking competency based assessment to clinical practice: An example from Occupational Therapy student education

Janice McKeever

Introduction: Teaching hospitals provide learning opportunities and clinical training to students and novice learners from various professional backgrounds. Part of this training involves guiding the learner through a variety of clinical scenarios, facilitating self-reflection and providing feedback. Supervisors often rely on criteria based assessments upon which to appraise the performance of the learner and base constructive feedback. Such assessments are valuable to the learner because they provide set criteria against which the student may measure their performance.¹

The student practice evaluation form – revised (SPEF-R) is one such assessment, and is used by the 4 Victorian Occupational Therapy (OT) programmes to assess their students. As the SPEF-R is used across a number of clinical placement settings, behaviours outlined must maintain a broad focus to enhance applicability to each placement. However, in doing so, the tool may lose the specificity needed to appraise student behaviours and competencies and feedback may appear to have limited relevancy for the student.

Methods: Given the need to link feedback to tangible clinical tasks within a busy acute hospital (Monash Medical Centre) it was decided to develop a document that cross referenced the SPEF-R with a particular clinical activity, in this case an OT initial assessment/interview. A checklist was developed in consultation with experienced supervisors as well as OT undergraduate students from different year levels. The assessment tool contained criteria on what behaviours and skills were needed in order to complete an initial assessment successfully. These skills were then cross referenced to the related areas in the SPEF-R. Once the tool was developed it was piloted with a cohort of students undertaking clinical placement in the OT department. Amendments were made based on the feedback received.

Results: The OT initial assessment checklist is now routinely applied with students undergoing placement in the acute setting. Feedback has been very positive and students report that having specific examples alongside a score in the SPEF-R allowed them to amend behaviours that subsequently resulted in improved performance during an initial assessment. Students found that it made the assessment process more transparent and feedback they received was more relevant to their clinical practice. Supervisors reported that the assessment tool helped to direct the time they spent giving feedback, making it more effective. Supervisors also reported that using the checklist made it easier to assess the student and complete the SPEF-R.

Conclusion: The initial assessment checklist when used in clinical education, complements the SPEF-R and makes the assessment process for OT students more transparent and relevant to their clinical practice. The checklist was also deemed useful to support supervisors in objectively assessing student performance and providing feedback on their observations.

Reference

1. Yeates PJA, Stewart J, Barton R. What can we expect of clinical teachers? Establishing consensus on applicable skills, attitudes and practices. *Medical Education* 2008;42:134-142.

Abstract 15

Clinical skill performance – the effect of video self-modelling and reflection

Prue Morgan, Stephen Maloney, Michael Storr

Introduction: Pre-clinical practical skills are traditionally taught to undergraduate health students via demonstration with accompanied supervised practice. A limitation of this approach is the inability for the student to ‘see’ their own performance from an external observer’s viewpoint, and hence gain insight into aspects of performance needing correction such as communication deficits or distracting mannerisms. Students are dependent upon the tutor or colleagues for feedback, and have limited opportunities for receiving tutor feedback outside of class.

Video self-modelling is a form of [observational learning](#) where a person views a video clip of their own performance of a particular skill. Video self-modelling shows promise for optimizing skill acquisition in undergraduate computer-savvy students.

The aim of this study is to determine the impact on clinical performance of supplementing practical skill tutoring with student video self-modelling and guided reflection compared to regular practical class tutoring alone.

Methods: Year 3 pre-clinical physiotherapy students (n=60) were randomly allocated to one of two groups to participate in the randomised controlled cross-over trial. Both groups were exposed to four separate skills (Skill A-D) taught via live practical class delivery. Students in group 1 supplemented practical skill A with video self-modelling, electronically submitted to the online learning system for remote tutor review, and completed a guided reflection of their own performance contrasted to a video of an exemplar peer-performance. Group 2 supplemented skill C with the same video self-modelling task. Students then completed a formative practical examination of skills A and C i.e. one task they had previously created a video for, and one that they had not. Following the examination, students completed a survey relating to their experiences with the video teaching strategy.

Results: Mean scores for the performance of Skill A were non significantly higher for Group 1, whose regular practical class tutoring for skill A was supplemented with video self-modelling and guided feedback, than for Group 2 who experienced regular tutoring only for skill A. Mean scores for the performance of Skill C were significantly higher for Group 2, whose regular practical class tutoring was supplemented with video self-modelling and guided feedback, than for Group 1, who received regular tutoring only for skill C. Sixty-seven percent of students responded positively when asked whether they felt more confident with the examination skill for which they had completed the video self-modelling activity.

Conclusion: Video self-modelling with structured reflection improves clinical skill performance. These enhancements include focused development on professional communication, the ability to store and track skill development over time, and potential economies of time and scale through asynchronous feedback from remote tutors.

Abstract 16

Interprofessional education of occupational therapy and architecture students – the journey so far

Valerie Watchorn, Helen Larkin, Susan Ang, Hisham Elkadi, Stephen Segrave, Dale Holt, Merrin McCracken, Danielle Hitch

Introduction: Effective interprofessional practice between occupational therapists and architects can be viewed as a way of enhancing environmental design and positively influencing the health and wellbeing of environmental users. This belief is shared by the architects, occupational therapists and education specialists who have come together to work on a project that embeds interprofessional teaching and learning activities on universal design into the curricula of undergraduate architecture and occupational therapy courses at Deakin University. With the long-term aim of enhancing the skills, knowledge and attitudes of future architecture and occupational therapy graduates the project team have worked to develop and trial teaching and learning resources for architecture and occupational therapy students on universal design; explore and identify sustainable opportunities for architecture and occupational therapy students to learn about universal design practice within a framework of interprofessional education; and to explore and identify sustainable partnerships with key stakeholders that will support ongoing interprofessional research and work integrated learning opportunities.

Methods: A comprehensive literature review has been conducted in the areas of universal design, interprofessional education, education and training on universal design and the use of Second Life™ in education. This information has been used to guide the development of shared intended learning outcomes, shared online learning resources and the interprofessional delivery of educational material into both courses. To guide future interprofessional education in this area information has also been gathered from key stakeholders by means of focus groups and telephone interviews. Feedback and evaluation of the student learning experience will be gathered using pre and post evaluation surveys.

Results: This paper shall present preliminary findings from this project. This will include qualitative data gathered from key stakeholders and evaluation material gathered from students.

Discussion: A key finding from the literature review acknowledges a need for interdisciplinary education in the area of universal design, yet few examples of this can be found. Issues such as timetabling, staff engagement, and differing use of terminology are all acknowledged as challenges to interprofessional education and have been reflected in the experience of the researchers involved in this project. Yet despite these challenges, the interprofessional team of academics involved in this project have developed a range of blended learning materials for use by first year architecture students and third year occupational therapy students. Modes of learning have included online materials, a face-to-face interprofessional workshop, and simulation activities conducted both in real life and in the virtual environment Second Life™. Opportunities have also been identified for future interprofessional education and research.

Abstract 17

A pilot study evaluating an interprofessional education workshop

Brett Williams, Ted Brown, Fiona McCook, Jill French, Claire Palermo, Lisa McKenna,
Liz Molloy, Malcolm Boyle, Rebecca Scholes, Andrew Molloy

Background: The need for interprofessional education (IPE) is driven by the belief that if professionals are knowledgeable about the skills and roles of each other, it will enable more efficient practice and ultimately optimal patient/client care. Therefore, one of the major focuses of the Australian healthcare system is to promote effective interprofessional learning (IPL) and collaboration.

Objectives: The objective of this study was to evaluate the effectiveness of an IPE workshop that included undergraduate students from Monash University.

Method: This study used a repeated-measures design to identify changes in readiness of IPL after the student IPE workshop (1.5 hour duration) which involved students from the following disciplines: paramedics, nursing, midwifery, occupational therapy, physiotherapy, and nutrition and dietetics. The independent variable was time, with evaluation occurring before (Time 1), after the student IPE workshop (Time 2) and 6 months following the workshop (Time 3), using the *Readiness for Interprofessional Learning Scale (RIPLS)*. A one-way repeated measures ANOVA was used to identify any changes over time.

Results: A total of 22 students participated in the study with most students from Paramedics (n=6) followed by Occupational Therapy (n=5) and Nursing (n=5). The majority of students were < 25 years of age (78%), with 73% female. A statistically significant difference was found in four of the 19 items. Item 1, 'Learning with other student will make me a more effective member of a health care team' (Wilks' Lambda=.54, $F(2, 17)=7.17$, $p<.01$, partial eta squared=.46) showed an increase between Time 1 and 2 where it stabilised at Time 3. Item 11, 'It is not necessary for undergraduate health care students to learn together' (Wilks' Lambda=.58, $F(2,17)=6.23$, $p<.01$, partial eta squared=.42) showed a consistent decrease over the reporting occasions. Item 15, 'Shared learning and practice will help me clarify the nature of patients' or clients' problems' (Wilks' Lambda=.62, $F(2,17)=5.19$, $p<.05$, partial eta squared=.38) showed an increase in Time 2, and then lowered slightly in Time 3. Item 16, 'Shared learning before and after qualification will help me become a better team worker' (Wilks' Lambda=.60, $F(2,17)=5.78$, $p<.05$, partial eta squared=.41) showed, as with item 15, an increase in Time 2, and then lowered slightly in Time 3.

Conclusions: These findings suggest that the IPE workshops for undergraduate health care students are a promising development in improving collaboration and shared learning among healthcare disciplines. Further work is required in determining if similar IPE workshops should be incorporated into core health care curricula at Monash University.