Clinical Skills Education:
Building Bridges between
Simulation and Practice

Prato, Tuscany
19 – 22 May 2013

Fifth International
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INDEX

Session 1 - Parallel Workshops

Salone
W01
Experience the NHS Yorkshire and Humber Quality Assurance Simulation and Clinical Skills On-Line Management System
Chappell, M., Ruck, H., Barrott, J.
Target Audience
Anyone involved in clinical skills and simulation based training and interested in Quality Assuring training
Workshop Format
A brief presentation which includes background to the development of the management system including: a history and rational for development, how it was evaluated before going live, how it was marketed across the region and how it has been received and used (10 minutes).
Participants will then have the opportunity to engage in the process of quality assuring their own clinical skills/ simulation training (1 hour). Participants organised in small groups of 4, on tables with laptops (maximum delegates in session 40). The SCSA advisor will facilitate the session and assist the small group to complete the tool.
The wider group will reform to 'round up' and facilitators will available to assist answer queries/help/suggest and then conclude with feedback around functionality of the system (20 minutes).
Aims and Learning Objectives
By the end of this session, participants should:
  • Be aware of the implementation process
  • Partake in the process of completing a training profile and experience how to input evidence
    to meet audit standards
  • Have viewed www.QAClinicalSkills.co.uk web site
  • Feedback regarding functionality and experience of inputting the management system data
Background
A Framework for Technology Enhanced Learning (DH 2011) indicates a need to prove educational outcomes also stipulated in the *QA Guidelines* ((NHS Yorkshire and the Humber 2011). Endorsing the necessity for quality processes to reduce clinical incidents; provide optimum service user care and support continuous improvements in training. Responding to the national drivers and outcomes set in the *Clinical Skills and Simulation Strategy* (NHS Yorkshire and the Humber 2010) plans were reviewed to develop and design a Clinical Skills/Simulation online system to verify that participating clinical skills and simulation trainers/centre's achieve set Core and Educational Standards to attain quality assurance status. The system would ensure the provision of consistent quality assured clinical skills and simulation training and equip all staff involved in clinical care across the region to provide safe patient care whilst minimizing risk.
Actions
Following extensive collaboration and consultation, quality assurance guidelines that include a quality framework, set Core and Educational Standards that trainers and assessors must achieve and various recommended assessment criteria were developed. In conjunction, a quality assurance web-based system was designed to help all stakeholders across the region to meet clinical skills and simulation quality assurance requirements. The tool was launched by the Strategic Clinical Skills Advisors team (SCSA) in accordance with the Q*uality Assurance Guidelines*, (June 2011).
In June (2011) the tool became fully operational and the readiness from trainers and training centres across the region to be quality assured is significant. To date the SCSA have assisted 20 trainers/centres to publish and 15 have been audited by the team and have achieve quality assured training status. The QA tool has the potential to highlight areas of poor practice which can be addressed and also highlight areas of good practice which could be adopted regionally and nationally.
Instructors Qualifications
All 7 SCSA have a teaching qualification and have been involved in facilitating similar sessions at national and regional conferences in the UK (number of SCSA required to instruct 40 delegates 4-5).

Sala Veneziana
KW01
Hands- on Hands-off – a model of effective clinical supervision
Iedema, R., Hu, W.
Description
This workshop focuses on a key challenge for clinical supervisors: assessing the competence of students and trainees to determine the appropriate level of independence and support for effective learning whilst meeting quality standards of patient care. These issues will be addressed using data from interviews with trainees, supervisors and two video case studies from real life settings, to highlight the unique challenges of assessment and communication with trainees and students in patient care environments. The data will anchor group discussion about how to make best use of the clinical learning environment to improve trainees' skills and performance.

Background

The workshop draws on two studies. Rick Iedema and colleagues explored the issue of autonomy vs. direct supervision through junior doctors' perspectives on supervisory relationships and interactions at a rural healthcare facility (Iedema et al 2010). Wendy Hu and colleagues are currently conducting a video ethnographic study of supervisors conducting actual formative assessments of medical, nursing and allied health students in hospital, outpatient and private practice settings. Results from this study will be used to examine and illustrate the hands-on-hands-off supervision model.

Aims and Outcomes
- Share findings from research studies exploring the hand-on hands-off supervision model
- Review video case studies of supervision and clinical assessment
- Explore the implications of research findings for effective supervision

Participants will be able to:
- Discuss the challenges related to determining the appropriate degree of supervision;
- Describe a framework for effective supervision and examine its practical implications.

Intended audience

Clinicians and educators with an interest in assessment of clinical skills in the workplace, at all levels of experience. No pre-requisite knowledge required.

Maximum number of participants

Up to 80

Sala Toscana

W02

Being instructed to learn intimate exams without valid patient consent in the workplace: developing students' strategies to refuse (W)

Rees, CE., Monrouxe, LV.

Objectives

This workshop aims to discuss:
- Research evidence which shows that medical students are still being instructed by senior clinicians to conduct intimate examinations without valid patient consent in the workplace
- Medical students' oral and written narratives of intimate examination dilemmas to understand how students act in the face of these dilemmas and why they comply with or refuse clinicians' instruction
- How we can help students develop strategies for refusing clinician requests, by discussing particularly our students' refusal narratives

Intended audience

This workshop will be of interest to a diverse group of teachers, learners and medical educationalists:
- Clinical teachers (either based in the workplace and/or the simulated clinical skills learning environment) who have responsibilities for helping students learn clinical skills around intimate (e.g. pelvic, rectal, breast) examinations.
- Other medical educators with responsibilities for helping students learn professionalism, ethics, social and behavioural sciences.
- Medical students who are learning intimate examinations in the workplace and simulated environments.
- Medical education researchers interested in professionalism dilemmas and how and why students act within such dilemmas.

Abstract

A decade ago the British Medical Journal published research suggesting that 24% of intimate exams by medical students on anaesthetised patients at one UK school occurred without valid consent.[1] An accompanying editorial urged schools to develop, implement and evaluate policies on student learning of intimate examinations.[2]

Despite these clear policies, often taught within the simulated clinical skills learning environment, seniors still instruct students within the workplace to conduct intimate examinations on patients without consent or with invalid consent (e.g. patients who have an inadequate understanding of the nature and purpose of student involvement are asked consent at an inappropriate time and/or are coerced).

Data from two large international studies exploring medical students' professionalism dilemmas sheds further light onto this issue.[3,4] In our qualitative interview study with 200 medical students from Australia, England, and Wales, students narrated 71 situations in which they were instructed to observe and/or conduct intimate exams on patients without valid consent, including what they did and why: 58 complied, 13 refused the request.[3] Our online survey (across 30/32 UK medical schools) collected data from 2397 medical students: 20.6% (n=331) and 21% (n=338) of clinical students reported being instructed to intimately examine female and male patients respectively without valid consent leaving students feeling morally distressed (particularly females).[4] In the same study, 72 written narratives of 'most memorable dilemmas' comprised situations where students were asked to observe and/or perform an intimate exam without valid consent, what they did and why: 62 complied, 10 refused.[4]

Medical students across the UK are being instructed to conduct intimate examinations on patients without valid consent and most comply, knowing their actions contravene school policies. This causes students, particularly

females, distress. This workshop aims to workshop ideas about how we can help students refuse these requests from senior clinicians in the workplace.

Summary of instructor's qualification and prior experience
Charlotte and Lynn are experienced medical educators and medical education researchers. Over the last 10 years, they have facilitated numerous workshops at national and international conferences, many of which have been invited workshops. They have nearly ten years' experience of working together as research collaborators, and also co-facilitating educational events such as seminars, and workshops, and their feedback from workshop participants has been overwhelmingly positive over the years.

Maximum number of participants
30.

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Sala Giochi
W03
Finding and appraising the literature of the physical examination (W)
Frain, J.

Learning Objectives
- Identification of high quality peer reviewed evidence for the reliability and validity of the physical examination
- Overview of methodology for diagnostic accuracy studies
- Formulating a clinical question
- Using the '6S' hierarchy of pre-appraised evidence to search relevant databases
- Appraising a paper on the physical examination
- Use of the STARD and QUADAS tools

Intended Audience
Teachers of the clinical examination and/ or Evidence-Based Medicine - all levels

Abstract
The physical examination is an area of medicine, like any other, requiring evidence to support its optimum application [1]. Students have themselves called for evidence-based teaching of physical examination skills [2]. Textbooks of evidence-based examination exist but require appraisal like any other source and may not always be suitable for junior students [3-5]. As in any other field of medicine, the literature of the physical examination is constantly increasing and developing, making this area of management a dynamic and not a static one [5]. Students apply clinical skills to their patients from the earliest stage of the curriculum. Patient based reflection on the evidence base for a clinical skill can help students acquire key skills in evidence based medicine [6]. There is sufficient literature available to develop high quality evidence-based clinical skills teaching material for students. Application of the best techniques of literature searching and use of the '6 S' hierarchy for pre-appraised evidence can help teachers and students identify resources for use in acquiring both clinical skills including reasoning and an appreciation of the place of evidence based medicine in assessing the quality of research findings [7]. Critical appraisal skills will assist teachers and students in evaluating research findings and deciding on the reliability and validity of physical signs. This can help develop more reflective clinical assessment of patients. Quality diagnostic accuracy research should display minimum standards. Use of the STARD and QUADAS tools in critical appraisal of the literature can help learners assess the quality of diagnostic accuracy research [8-9]. This workshop will be both interactive and practical and allow participants hands on experience in formulating a question around the physical examination, identifying and appraising relevant literature using suitable tools.

Author's experience
1. Director of Clinical Skills at the School of Graduate Entry Medicine of the University of Nottingham with responsibility for developing course material on clinical skills and coursework "Reflection on the Evidence Base for a Clinical Skill"
2. Student of MSc in Evidence Based Health Care at the University of Oxford

Maximum participants
20

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4. Berg D, Worzala K. Atlas of Adult Physical Diagnosis. Philadelphia: Lippincott Williams & Wilkins, 2006

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Breakout 1 & 2
W04
Using a Virtual Learning Environment within Simulation
Humphreys, M., Bracegirdle, L., Rosenorn-Lanng, D.

Introduction
This workshop details a collaborative research project between Nursing and Midwifery, Pharmacy and Medicine at Keele University, to explore the development of team working skills (NOTECH) and debrief within an inter-professional active virtual learning environment (KAVE).

Objectives
- Provide a demonstration of the range of possibilities of an immersive active virtual learning environment to accomplishing NOTECH skills development;
- To offer experiential opportunities with 3D technology in the classroom;
- To discuss potential and concern of inter-professional learning within a virtual learning environment.

Intended Audience
All healthcare professionals will be attracted to this workshop.
There are no pre-requisites or experience level necessary.
The workshop will run with 6 – 8 participants at a time, however, many can engage, contribute and observe by wearing the 3D glasses simultaneously. Maximum numbers would be in the region of 25 – 30.

Format of Workshop
This workshop will allow students to participate within the 3D virtual word in a simulated NOTECH scenario and/or observe proceedings in 3D and offer a constructive debrief to those individuals who do participate. Participants will be encouraged to share findings and current evaluation of pilot studies will be shared.

Abstract
The virtual ward and NOTECH training provided within the KAVE are thought to be the first of its kind within the UK. The project has recently been presented recently within Australia and been very positively received; it has also been accepted as a workshop at the National Association for Simulation in Healthcare (ASPiH) conference in November 2012 within the UK. KAVE is a physical room where three-dimensional 'stereoscopic' visuals display on three walls and the floor, to create a computer generated virtual environment. A student wears active 3D glasses and a lightweight head and hand-tracking device. The computer-generated visuals respond to position in the KAVE and allow the student to 'pick up' and interact with digital objects such as care plans, prescription charts, observation charts etc. The virtual ward is able to simulate observation and diagnostic skills training. ECG monitors' provide information regarding the status of each virtual patient within the ward (4 – 6 are usually used). The KAVE itself has been presented at the fourth International Clinical Skills Conference held in 2011; this new workshop will provide participants with the opportunity to engage within the virtual learning environment to participate within a NOTECHS teaching simulated environment.

It has been recognised that a major challenge for OSCE's in clinical training is standardisation of the process and ensuring appropriate access for students. The virtual ward has been developed to simulate interactions between the students and a virtual patient (or avatar). Students can immerse themselves within a clinical ward setting and practice team leadership, management and communication skills in a practical and ethically safe environment (Kirriemuir, 2009; Skiba, 2009). This enables students to make mistakes without repercussions or causing clinical harm to patients. Students can analyse and evaluate the scenarios encountered and work on their non-technical skills in the environment during the role-play; all will participate within the structured debrief.

Key words
Virtual Learning, KAVE, innovation, Immersive technology, inter-professional

Session 2 – Parallel Oral Sessions

Salone
O01
Team-based learning methods in teaching topographical anatomy by dissection
Burgess, A., Ramsey-Stewart, G., May, J., Mellis, C.
Background
- Principles of Team Based Learning (TBL) have been ultilsed to good effect during an innovative anatomy by whole body dissection course for senior medical students at Sydney Medical School.

Aim
- To investigate the efficacy of adopting TBL principles based on acquisition of topographical anatomical knowledge and student feedback.

Methods
- 42 students were divided into eight groups and carried out whole-body dissection on eight cadavers over a 34-day period. TBL teaching strategies included appropriate group allocation; out of class preparation; problem solving intra-group activities; inter-group competition and frequent assessments.
- The effectiveness of TBL was assessed by knowledge acquisition and retention and by questionnaire.

Results
- The course produced a marked increase in topographical anatomical knowledge. The median Pre-course assessment score was 9/20 and the median Post-course assessment score was 19.5/20 (P<0.001).
- The TBL methods used were considered to be highly effective by the students.

Conclusion
- The application of TBL methodology to teaching human anatomy by dissection enables a large group of students to have small group experiences without a large number of teachers.
- Our findings demonstrate that team-based learning in an anatomy dissection program provides effective and efficient learning experience for students.

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Ramsey-Stewart, G, Burgess, A, Hill, D. *"Back to the Future. Teaching Anatomy by Whole Body Dissection"* The Medical Journal of Australia 2010 Dec 6-20;193(11-12):668-71.

O02
Using transformational leadership skills while working in transactional environments
Willetts, G., Moss, C., Cross, W.
Background
Developing managers to effectively operate in our dynamic health services has become a major priority to ensure patient centeredness whilst meeting organisational KPIs. This paper presents the research evaluation of an innovative immersive educational initiative. This initiative aimed at developing managers' leadership skills in using transformational ways of working whilst functioning within transactional environments.
The four key modules delivered included:
- Breakthrough leadership and the entrepreneurial manager,
- Facilitating workforce development and innovation using practice development principles,
- Working with states of evidence and outcomes to advance practice,
- Building ways of working with model of care work.

Method
The four leadership modules were taught over a three month period. During the following 12 months, 60 participants had the opportunity to be mentored by content experts and supported by facilitators from within their organisations as they applied theory in practice.
The methods used for the evaluation of this program were:
- Audiotaped focus group interviews involving participants from 3 of the 4 healthcare organisations
- Audiotaped individual interviews (n=6) involving the facilitators.

Evaluation
This paper will present findings from the evaluation data focusing on:
- The insights into a methodology of immersive education;
- How we can build theory and practice to support leaders to find ways of working transformationally within their transactional workplace cultures
- What models of immersive education are effective in helping senior health professionals advance their skills and practices?

Discussion & Conclusion
Drawing upon these preliminary findings this paper will conclude by discussing and making recommendations for future leadership training aimed at producing realistic and successful learning experiences for leaders in healthcare.

O03
Workplace-based Simulation in the Emergency Department: A Powerful Innovative Patient Safety Tool
Mardon, J., Whymark, C., Hannah, J., Canavan, M., McNaught, M., McIlwraith, E., Neill, H.

Aim
Simulation has repeatedly been shown to facilitate high quality education in undergraduate, postgraduate and multidisciplinary settings[1]. In Situ Simulation technique has the vital advantage of facilitating the appreciation of latent errors within the workplace allowing safety improvements to be implemented promoting a person centred safe clinical environment[2].

Method
Ayrshire and Arran Simulation Centre has been running for 4 years delivering high quality scenario based learning for multiple disciplines and specialties. This study describes taking high fidelity simulation training into the emergency department resuscitation room. The equipment used was a high fidelity simulator wireless HAL boy. The scenarios used were well validated paediatric resuscitation scenarios.

Results
The results were received during immediate video informed feedback and uncovered several latent errors challenging a patient centred safe clinical environment. Immediate brainstorming using the multidisciplinary team taking part in the simulation session allowed immediate patient safety changes to be implemented.

Conclusions
The use of high fidelity simulation training in the resuscitation area of the emergency department has been shown to facilitate a person centred safe clinical environment. This pilot is being rolled out to other areas in Ayrshire and Arran enabling a culture which is constantly striving to put patient safety at the centre of the clinical experience.

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[2] Lighthall GK, Poon T, Harrison TK. Using In Situ Simulation to Improve In-Hospital cardiopulmonary resuscitation. The joint commission Journal on Quality and Patient Safety. 2010;36:209-216

O04
Teaching clinical skills to undergraduate nurses using a multiple intelligence teaching approach – an experimental study
Sheahan, L.

The clinical competency of nursing students has raised questions about the adequacy of current methods of teaching clinical skills in the undergraduate nursing programme. The need for innovative teaching strategies to develop clinical skills has raised many professional debates. It is argued that despite the rhetoric of a student-centred approach; nurse education remains wedded to conventional teaching approaches, which fail to engage with the individual. A multiple intelligence teaching approach (MITA) has been used in nurse education but has not been reported for use in clinical skills instruction. This paper presents the findings of a doctoral research study which used MITA, a five-phase model developed by Weber (2000), as the method of teaching. This study also accounted for the influence of individual learning styles and the students' multiple intelligences development assessment scale.

This study employed a randomised control trial with first year nursing students in a third-level institute (n= 90). The participants were randomly allocated to a control group (conventional teaching) (n= 44) or a treatment group (MITA) (n= 46) for teaching of clinical skills. This study compared MITA with conventional teaching for a number of core clinical skills and MITA was carried out by the researcher. Students were subsequently assessed using objective structured clinical examinations (OSCE) at the end of the semester. The preliminary findings of this study indicate that students who were taught using MITA scored higher in their OSCEs ($p < 0.05$) and qualitative analysis additionally related very positively about the MITA approach. It is contended that MITA has great potential in nursing education and clinical skills development, particularly in terms of reinforcing learning beyond the educational domain and into the individual's professional development and clinical practice. It will also contribute to the conceptual understanding of multiple intelligences approaches to teaching and learning.

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O05
The art of prescribing: how a peer-led intervention can increase medical student competence and confidence in writing drug prescription charts
Knight, SR., Frame, F., Mac Carrick, T., Smith, MI., Stanley, AG.
Introduction
GMC guidelines state that junior doctors must be able to write drug prescriptions safely at the point of graduation[1]. However, studies demonstrate that final year medical students feel underprepared, with many suggesting there is a lack of formal teaching and opportunities to practice the basic clinical skills required for drug prescribing [2,3].
The aim of this study was to deliver a peer-led undergraduate intervention linking theory to practice to increase competence and confidence in the practical aspects of writing drug prescription charts [4].
Methodology
204 medical students in their first clinical year at the University of Leicester completed the intervention. Using a questionnaire, the students were assessed on their pre- and post-intervention competence and confidence with drug prescribing. They also commented on the overall usefulness of the experience.
Findings
Data analysis indicated that student competence increased significantly ($p < 0.0001$) across each of the prescribing domains addressed by the intervention. In addition, confidence also increased significantly ($p < 0.0001$). All students indicated a high level of satisfaction with the teaching package.
Conclusion
The findings suggest that a peer-led intervention linking theory to practice can increase competence and confidence in writing drug prescription charts, highlighting the importance of integrating this into the undergraduate curriculum.
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O06
Effective Self-Assessment Methods for Third-Year Medical Students in a Transition Course
MacNamara, M., Gainor, J., George, P., Taylor, J.
Background
Self-assessment is an essential component of physicians' lifelong learning, but the process may not be self-evident.
Aim
We evaluated the change in rising third-year medical students' self-assessment of clinical competencies and learning goals over the course of a three-week, non-specialty specific transition course, the Clinical Skills Clerkship (CSC), and after their first 12 weeks of specialty-specific clerkships.
Methods
Based on an extensive literature review and iterative curriculum development, we designed a self-assessment survey and piloted it among twelve senior medical students. The survey asked students to quantitatively self-assess their levels of competency for seventeen clinical and professional skills on a 4-point Likert scale (1=very incompetent; 4=very competent) and to qualitatively describe their learning goals for the CSC and subsequent clerkships. All CSC students (n=98) completed the on-line survey during the first and last weeks of the three-week CSC held in April/May 2012. They were resurveyed after 12 weeks of specialty-specific clerkships.
Results
Students rated most clinical and professional skills significantly higher at the end of the CSC than at the start, including basic suturing (1.50 to 2.95, $p < 0.01$), interpreting electrocardiograms (1.73 to 2.82, $p < 0.01$), reading chest x-rays (1.74 to 2.79, $p < 0.01$), and communicating with team members (2.81 to 3.24, $p < 0.01$). Overall means ranged from 1.08 to 2.83 in the first assessment and from 2.10 to 3.24 in the second. Self-assessment of competency level was not correlated with learning goals in either assessment. Data from the third survey will be analyzed in August 2012.
Conclusions
We examined medical students' evolution of self-assessed competencies and learning goals in the context of an intensive, three-week transition course and subsequent clerkships. Our study's initial findings indicate a positive effect of the CSC on these students' self-reported preparedness. The process may help raise students' awareness of self-assessment during a critical professional transition.

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O07
An Innovative Surgical Training Model Using a Hyper-realistic Open Surgical Simulator

Wall, VG., Hunt, BB., Rodriguez, VE., Bowden, R., LaPorta, AJ.

Presented by LaPorta, AJ.

The innovative Human-Worn Partial Task Surgical Simulator (Cut Suit) provides the ability to train and assess medical students' technical and non-technical skills in a hyper-realistic open surgical simulator, a novel opportunity filling an existing need in simulation technology.[1] Worn by a live human, the Cut Suit simulates the anatomy, feel, and smell of trauma events or surgical diseases while allowing medical personnel to practice life-saving procedures and surgical interventions. The skin, organs, and bones are user-repairable, allowing for repeated uses.[2]

Rocky Vista University College of Osteopathic Medicine in Parker, Colorado, is the first medical program to incorporate the Cut Suit into surgical training. The Intensive Surgical Skills Course (ISSC) for second-year students is an experimental training model that provides a realistically simulated operating room for training in non-technical skills (professionalism, stress management, leadership, communication among the surgical team[3]) while students learn technical skills using the Cut Suit. Technical competencies include trauma management, knot tying and suturing, and full operations.

Assessment of ISSC participants demonstrated significant improvement in both skill sets. The data from this pilot study supports further development of the ISSC using the Cut Suit during didactic years of medical school to improve preparedness for later clinical training years.

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O08
Using Simulation Technology to Improve Asthma Outcomes

Gupta, G., Gupta, R.

Correct inhaler technique is important to achieve asthma control. Metered dose inhalers (MDI) are the most commonly used devices. High rates of incorrect use, as high as 86%[1], show that current ways of educating patients are not effective. We believe that interactive software simulation can be more effective at teaching correct inhaler technique while reducing time demands on busy healthcare providers.

Our team created several interactive components that focus on: context based learning, repetition, use of age appropriate games, and feedback through video analysis. Practicing breathing with the "Learn to Breathe" tool helps to address errors that result from failure to take deep breaths or identify the points of full inhalation, full exhalation and when to actuate MDI. The "Learn to Inhale" tool then coordinates the stages of breathing to steps involved in taking an inhaler. On demand pop ups will provide detailed reasoning for each step, visual explanation of what happens when the inhaler is used correctly or incorrectly, and provides tips for improvement. These tools would be made available across all media platforms and customized for use by healthcare providers and/or patients. Validating the patient's technique by video analysis may enhance self-efficacy and improve asthma outcomes.

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Sala Toscana
O09
Interprofessional Peer Facilitator Scheme

Richardson, S., Fordham Clarke, C., Berry, J., Pegram, A., Marron, E.

Within the School of Medicine and School of Nursing & Midwifery at King's College London we have been running successful Peer Tutor schemes for many years. We are now creating an innovative collaborative peer facilitation scheme with the purpose of enabling interprofessional students to not only learn in an environment together but to actively participate in the planning, implementation, evaluation and running of the scheme.

Medical and Nursing students in their third year will be recruited to facilitate sessions for second year Medical and

Nursing students. Right from the beginning of the scheme students will be invited to be part of a Steering Group to plan and run the scheme. All of the facilitators will attend training which will focus on teaching styles, classroom management and teaching preparation.

The researchers' objectives are to look at collaborative working to investigate what the peer facilitators perceptions of the experience are including what has aided or hindered their development. The teaching will be evaluated to see the effect of this collaborative working and learning environment on both the peer facilitators and tutees. The scheme and research will start in October 2012 and therefore by May 2013 we will have some research results to share.

O10
Digital resources in higher education: evaluating the impact

Kingston, L., Molony, M.

Background

A team of collaborators led by the Department of Nursing and Midwifery in the University of Limerick were granted a national award from the National Digital Learning Resources (NDLR) body. The team developed an on-line video based digital resource, with a self-assessment component, on the topic of infection prevention and control, underpinned by standard precautions. The resource is suited to inter-professional teaching and learning and has broad appeal to academics and students across the health science disciplines.

Aim

The aim of the study is to evaluate perceptions of the on-line digital resource.

Method

Following initial development of the resource a convenience sample of academics and students (n=48) evaluated the resource. The resource was incorporated into teaching and further student evaluation was conducted following refinement of the on-line evaluation questionnaire (n=30). To strengthen the evaluation NDLR website metrics were also analysed.to determine national and international interest in the resource.

Findings

Overall broad satisfaction with the resource was reported. The resource positively impacted student learning and students liked the self-directed nature of the resource. Students and peers found the resource to be appealing, interesting and engaging. The majority reported that it was well designed and easy to navigate. The media components (visual, verbal, images) were considered valuable and the narration was clear and easily understood. The quiz was reported as useful in assessing knowledge. This on-line approach to teaching and learning on this topic was considered valuable by most respondents. The majority reported that they would recommend the resource to others.

Conclusion

The evaluation has led to refinement and modification of the assessment component of the resource. While initial evidence suggests that the resource positively impact student learning further research to examine the wider impact of this resource is needed.

O11
Medical trainees' experiences of leadership within the interprofessional workplace learning environment

Gordon, L., Rees, C., Ker, J., Cleland, J.

Background

Leadership development as a non-technical skill (NTS) has come to the fore in recent years alongside a changing healthcare workplace and workforce[1]. Current leadership development practices and research still tend to focus on individual competence and training despite espousing shared leadership models[2]. There is a need to better understand how leadership involving medical trainees (MTs)* emerges in the interprofessional workplace in order to ensure that educational practices meet trainee needs.

Study Design

The aim of this study is to elicit stories of the 'lived experience' of leadership, followership and leadership education within the healthcare workplace learning environment.

A series of focus groups and narrative interviews are being conducted with MTs from multiple sites across Scotland in order to answer the following research questions: What do MTs understand by the terms leadership and followership? What are MTs' experiences of leadership and followership? What are MTs' perceptions of need in relation to leadership development?

Results/Conclusions

In Prato, data from approximately 9-10 focus groups and 10-15 interviews will be presented. This data will have been subjected to multiple complementary forms of analysis. Recommendations for future practices in developing this NTS will provide unique and valuable information to educationalists and policy makers.

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* In the UK, the term "medical trainee" refers to postgraduate doctors prior to Consultant or General Practitioner Level.

O12
Final year medical students and nurse students learn inter-professional teamwork through simulation
Persson, AC. Presented by Tingstrom, P.
Setting
The Faculty of Health Sciences (FHS) at Linkoping University in Sweden has a long tradition of promoting inter-professional learning for health professionals. Students start the first semester with a seven-week common foundation course on health, ethics and learning in integrated groups of students from all programmes. Later on students meet in integrated groups for inter-professional learning activities in a two week course on quality improvement in health care. The inter-professional part of the curricula is completed by a common integrated clinical placement on the so called student wards. In 2011 a new inter-professional learning activity was introduced: Inter-professional team-training using full scale simulation of an acute situation.
Objective
The main objective of the study was to describe how students learn inter-professional teamwork through simulation.
Method
Undergraduate medical students and nurse students in their last semester carried out full scale simulations using the patient simulator SimMan. Student teams with one or two students from each programme were given the task to take care of an unconscious patient. Other student teams were assigned to observe the simulation from behind a one-way screen. Data was gathered by filming both groups' debriefing sessions.
Analysis method
A phenomenografic approach was applied to analyze the filmed data. The filmed sessions were analyzed using the tool NVivo. Differences and similarities in the way the students' experienced the team-simulation were compared and categorized into different aspects of learning. So far 6 out of 24 films have been analyzed and a lot of work remains.
Preliminary findings
Preliminary findings indicate five different learning aspects; the importance of understanding roles; the importance of clarity in communication; the interplay between professional roles and teamwork; that things take time and finally that focus on saving the patient's life led to trust and respect in the team. The acting students described their learning from all these aspects while the observers mainly mentioned aspects on the roles and the communication in the team.
Conclusion
Training for teamwork by means of simulation is an important addition to the FHS's IPL-curricula. The added value of this learning modality is that students become aware of new important aspects of learning inter-professional teamwork. Observers and actors seem to learn slightly different things.

Sala Giochi
O13
From set objective structures to Self-directed learning for senior medical students in primary care placements; exploring the acceptability of a new approach.
Wylie, A., Leedham-Green, K., Takeda, Y.
Medical students cover a range of topics in their penultimate year at King's College London medical school. Students are encouraged to identify "gaps" and uncertainties about their skills and use two additional days in General Practice to select four topic areas to revisit. The feasibility and value of this approach were explored as part of an ethically approved research project. This presentation reflects the students' views.
Background
Medical students (approx 430) have placements at various sites and variability in learning experiences. Ahead of end-of-year examinations we offer students four supervised clinical sessions with their GP tutors based on topic areas they have identified. This requires negotiation, and the ability to self-assess their learning needs.
Research
We present analysed data from 3 student focus groups. All current penultimate year students were invited with the first to reply selected, and a total of 15 respondents. The topic guide emerged from related data, exploring what the students gained, their concerns and levels of satisfaction with this initiative. NVivo 9 aided the thematic analysis.
Results
Students that fully engaged with this programme reported high levels of satisfaction especially where their GP tutors had also prepared well. Students found the experience worthwhile, albeit demanding with regard to logistics. However some students indicated their GP tutors were reluctant to participate, reporting organisational and communication problems. GPs reactions were broadly positive, however timely communication from students about their learning needs was highlighted as an issue, as well as the challenges of covering diverse learning needs when teaching several students.
Discussion
Students and practices provide data in from multiple sources. The focus group findings triangulated well with other data, indicating this programme needs to be continually reviewed and supported, yet offers the potential to enable students to identify and practice skills, facilitating their transition to Self-directed learning, essential for clinical practice

O14
Importance of Feedback to Year 2 medical students in the Formative OSCE
Lau, WM., Durairajah, AK., Yasin, M.
Immediate and high quality feedback in the Formative OSCE is beneficial to students.
Methodology
123 Year 2 medical students who participated in a Formative OSCE session were provided with written feedback on the same day. The students provided feedback on this exercise.
Results
100% (123)Year 2 students completed the questionnaire. 99 (81%) felt that the feedback was important. 94 (76%) perceived that they were provided with adequate information. More students felt that they obtained information on their weakness (104-84%) in contrast to their strengths (89 - 73%) The feedback was clear to 84 (68%); timely to 83 (67%) and of high quality to 78 (64%) students. 99 (75%) perceived that they have been provided with suggestions for improvements by the examiners but only 83 (68%) of the students were able to carry out remedial measures. Most students preferred feedback to be provided at the completion of the exams on the same day (58 - 48%) in a written format (60-49%).
Conclusion
More than 80% of the students felt that the feedback was important but less than 70% perceived this as being clear and of high quality. There is a need to organise a better quality feedback process in the Formative OSCE.

O15
The reliability of skills domain scores in a high stakes OSCE examination: a preliminary analysis.
McKinley, RK., Hartley, K., Cowling, M.
Background
All consultation skills' assessment at Keele University School of Medicine use GeCoS[1], a *Generic Consultation Skills* assessment tool, which contains nine consultation skills domains. Assessors make judgements of students' competence in each assessed domain and an overall judgement of performance at each station.
There is emerging interest in the reliability of assessment within skills domains.[2]
Aim
To describe the reliability of skills domains' scores in a high stakes OSCE.
Methods
In the 2012 finals OSCE, examiners returned a single score for each domain assessed at each station and an overall score for each station. Cohen's   was calculated for the overall and domain scores. The School's Research Ethics committee has approved research using anonymised student data.
Preliminary results
There were 111 candidates and 14 stations. The overall alpha for the OSCE was 0.76. The alpha coefficients for the seven assessed domains were: Opening 0.38 (assessed in 5 stations), History 0.71 (8 stations), Examination 0.09 (4 stations), Management 0.64 (11 stations), Clinical reasoning 0.53 (11 stations), Organisation 0.63 (10 stations), and Building and maintaining the relationship 0.36 (5 stations).
Discussion
Assessment by skills domains may allow reliable profiling of students' skills and targeting of remediation.
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O16
A trans-Pacific Ultrasound Training Course within an Australian rural medical school
Nagle, A., McKeown, P., Landow, A., Beier, L., English, C., Sloane, B., Sprouse, B., Fox, C.
Background
Ultrasound has become the number one imaging modality in clinical medicine, and is particularly relevant to rural medicine. The University of New England, School of Rural Medicine (UNE SRM) is committed to introducing ultrasound throughout the 5 years of undergraduate entry medical education. An Introduction to Ultrasound course was developed for first and second year medical students, with the support of faculty and students from the University of California Irvine.
Method
The modes of learning were spaced over a month and included:
- Introductory lecture and clinical demonstration of real time echocardiography of a patient with heart failure (1.5hrs)
- Four self-directed on-line modules (You Tube), from the University of South Carolina and the University of California Irvine (2hrs)

- Lecture on the clinical uses of Ultrasound (1.5hrs)
- Small group practical lab-skills session, mentored by exchange UCI medical students with actor patients and Sonosite Ultrasound equipment (2hrs).

Results

91 (65%) students attended the voluntary Ultrasound course. Knowledge was measured by MCQs pre and post using a synchronous, mobile internet-device based data collection tool (ResponseWare). The proportion of students answering 6 knowledge questions correctly (Ultrasound physics, indicator use and identification of organs) increased by an average of 32% (ranging from 31%- 65% at pre-test to 63%-96% at post-test).

Practical skills were evaluated by the mentors, and greater than 93% of students were rated competent in using the equipment and greater than 89% were able to identify on Ultrasound the kidneys, liver, spleen, IVC and aorta during a 5 minute individual assessment on a simulated patient.

Conclusion

This pilot program for 1st and 2nd year medical students was highly successful in increasing Ultrasound knowledge and skills. Further expansion is planned to include assessment of retained knowledge and further integration of ultrasound throughout the 5 year course.

Studio 1

O17

Hospital setting: A learning environment to clinical skills education and practice

Rezaee, R., Ebrahimi, S.

Introduction

Clinical learning occurs in the context of a dynamic environment. Learning environment found to be one of the most important factors in determining the success of an effective teaching program.

Aim

To investigate, from the attending and resident's perspective, factors that may affect student leaning in the educational hospital setting at Shiraz University of Medical Sciences (SUMS).

Methods

This study combined qualitative and quantitative methods to determine factors affecting effective learning in clinical setting. Residents evaluated the perceived effectiveness of the university hospital learning environment.

Fifty two faculty members and 132 residents Participated in this study.

Results and Conclusion

Key determinants that contribute to an effective clinical teaching were autonomy, supervision, social support, work load, role clarity, learning opportunity, work diversity and physical facilities.

In a good clinical setting, residents should be appreciated and given appropriate opportunities to study in order to meet their objectives. They require a supportive environment to consolidate their knowledge, skills and judgment.

Keywords

Learning environment, Hospital setting, Clinical learning

O18

The third party in the room: capturing the interaction between the patient, student and electronic health record in a simulated patient interaction

Bazzo, D., Norcross, W., M.D., Wallace, P.

The UC San Diego School of Medicine utilizes an extensive standardized patient program for skills development and evaluation. The Primary Care Clerkship, in the third year of medical school, specifically uses the experience as a purely formative occasion with faculty coaching to enhance student skills. In addition to monitoring the student's performance with the patient in history taking, physical examination, patient interaction and information sharing, the progress note created for the encounter (completed after the student exits the room) is evaluated with a standardized progress note audit tool.

UC San Diego has had a clinical electronic health record (EHR) system for nearly seven years. Little is currently available in the medical literature evaluating the doctor/patient/EHR interaction and communication. In addition, little educational material is available on the subject. Our center is working with a digital recording system vendor to create the ability to capture the student input into the EHR contemporaneously with the video of patient encounter. The goal is to study this and create curriculum surrounding improved interactions with patients, physicians and EHR. Comparison of patient interaction scores prior to use of EHR and with use of EHR are evaluated. It is postulated that the use of an EHR during the patient interaction may affect the doctor patient relationship and patient satisfaction regarding communication with their physician. Best practices will be identified and curriculum developed to enhance physician patient communication while using an EHR during the interaction. A brief discussion surrounding the technical process of implementing simultaneous video capture of the patient interaction and the computer screen will also be included, time permitting

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O19
'Across the pond' – International co-operation in studying the physical examination

Frain, J., Berg, D., Berg, K., Frain, A.

Aim

To report on the establishment of a working link between two Universities for the study and teaching of the physical examination

Background

Physical Examination skills remain essential to the practice of medicine. Over the last 20 years Professors Berg have taught an advanced physical diagnosis course[1] and have more recently lead clinical skills teaching at the Rector Skills Center of the Jefferson Medical College, Philadelphia. They are co-authors of a textbook examining the evidence base for the physical examination [2]. In May 2011, John Frain visited Philadelphia as part of an International Travelling Fellowship of the Association for the Study of Medical Education (ASME). The purpose of the visit was to examine teaching of the physical examination including use of the evidence base. Professors Berg reciprocated the visit in March 2012 and now both departments are in discussion regarding future collaboration in study and teaching of the physical examination.

Methods

Projects under consideration include:

Development of a white paper to set a new paradigm for teaching and assessment of physical examination

Development of Simulation-based tools for teaching and assessment of physical examination skills

Sharing best practice in assessment and teaching of the physical examination including evolving and exporting components of the Advanced Physical Diagnosis course

Develop strategies to validate evidence-based checklists for the physical examination

Developing a research strategy for studying the accuracy of the physical examination including use of systematic reviews and diagnostic accuracy studies

Developing a website for sharing physical examination teaching resources

Developing a Faculty and student exchange scheme between our two universities for the study of physical exam

Facilitating students from Nottingham to attend the final year Advanced Physical Diagnosis course at Jefferson Medical College

Results and Discussion

We will discuss the logistics of developing this collaborative link and outline progress achieved with these projects.

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O20
Critical Care - Bridging Practice and Education through Simulation

Morton, S., Simpson, T., Sloan, P., Trueman, I, Morton, F.

The purpose of this paper was to bring together some within nursing education, firstly simulated practice, secondly, inter agency collaboration and thirdly interprofesional learning. It was felt that the justification of such a way of learning stems from the NMC (2007) guidelines allowing 300 hours of simulated practice but also ensuring patient safety by utilising a simulated environment.

Students identified their anxieties when starting their critical care placements and having utilised simulation it was felt this method of teaching would be beneficial in their transition to critical care.

The areas themselves differ in many ways, but the fundamentals of an ABCDE approach are recognised in the NHS and endorsed by NICE (2008) are the same. As a result we developed a programme which reflected the differences but also highlighted the essential skills and similarities of them all.

We utilised the knowledge and skills of experienced practitioners in ICU, A&E and theatres to facilitate a day which would be interactive and stimulating,

The event followed a patient and their journey from prehospital, to critical care environments, the student was able to utilise assessment of the patient using the ABCDE algorithm. They were expected to participate in interventions with equipment they would encounter in practice

We incorporated incidences including cardiac arrest, vomiting on intubation; these were designed to show the student that adverse events do occur and to assist them in development of critical thinking skills.

The students were also expected to take SBAR reports to ensure that they were handing over the patient to the next area of care (NHS 2008).

This simulated day evaluated well on the day and the students said they enjoyed it, however some of the feedback stated they still felt uneasy. We felt that the positive differences would not be understood until the student had started their critical care placement and indeed the retrospective feedback from students bore out the fact that students noted how better prepared they were once they encountered the aspects of their simulated day in the real environment, furthermore we cannot state categorically that the students felt that their new skills decreased their anxiety we can report that they felt better prepared once they experienced the real environment with real patients and real clinicians. It has been further reported and albeit anecdotal, that clinicians noted a difference in these students having experienced the simulated learning environment.

We note that these outcomes are the basis for further studies and development of simulated practice in the future.

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Breakout 2
O21
Preparing students for clinical placements in private primary care practices
Keating, J., Morgan, P., Haines, T., Barton, P., Maloney, S., Richards, K., Kent, F.
Presented by Kent, F.

Private practice primary care physiotherapy exists outside of the public health system in Australia. Although it employs around 60% of new graduates, most pre-graduation practical experience occurs in public health facilities and not in primary care. Anecdotal explanations for limiting clinical education in primary care settings are that paying clients are not agreeable to student care, students lack the skills for primary care and that teaching slows patient throughput resulting in a cost to business.

This project is underway. We first gathered data from primary care consumers on attitudes to student consultations and type of services considered suitable for students to deliver. We also interviewed private practice primary care providers to determine student competencies that would enhance placements and enable effective service delivery. In the second phase we developed and refined self-directed modules to enhance targeted skill development with educator and student feedback. This included a standardised framework for building self-directed learning modules for practical skill development.

We will report observed consumer perspectives, the skills perceived as essential by primary care educators, the framework for delivering material that enhances the acquisition of practical skills and an example of a completed module that has been refined with stakeholder feedback.

This project was possible due to funding made available by Health Workforce Australia and the Department of Health, Victoria.

O22
A discussion of Educational theories of learning related to the clinical practise context.
Whereat, S.

No single learning theory (1) is able to fully explain a range of practices in medicine. Often educational practice is not based in theory that adequately describes the transition to workplace and how students interact in reality. There is also an inability to judge effectiveness of the educational methods in practice possibly due the absence of theoretical perspective consistence with practice environment.

Medical education theory has been based on a cognitive perspective focusing upon the individual as the active agent with the theories of adult learning, reflective practice and novice to expert dominant, however this misses the impact of the complex workplace , where learning and practice is largely context linked (1).

What is suggested is that the following two theories, relating to both the individual motivation and the workplace factors together impact theoretical transfer of knowledge into the practise context.

Socio cultural/construction models of learning see the individual as part of a complex system which is consistent with the workplace setting. Self-determination theory looks at individual motivation and is considered to be socially constructed. Motivation being the perception of the individual's ability, with four factors autonomy, competence, relatedness and control mattering most (2) to the individual.

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O23
Facilitating Safe internship: Building links between simulation and safe practice
McKenzie, S., Mellis, C., Burgess, A.
Background
Literature shows the rate of adverse events increase when interns commence employment. In Australia most interns commence employment in January.
In October 2012 Sydney Medical School, Royal Prince Alfred Hospital, will run an intensive 5 day course to prepare pre interns (PRINTS) for safe practice in hospital as interns.
During this course, PRINTS will be presented with scenarios of advanced procedural skills and common problems encountered on the wards
Aim
This study will use qualitative and quantitative data to evaluate perceived and practical effectiveness of this course.
Methodology
This is prospective cohort study N=60
Students will be surveyed at the beginning and end of PRINT, and a follow up focus group will be conducted.
Three months into their internship, they will be followed up by survey to gauge the impact the course has had on their transition to internship.
Intended outcomes
We hypothesise that this course will enhance the existing knowledge and competence of our PRINT students, increase their awareness of safety issues in hospital, and reduce adverse events from occurring in our hospitals.
Reference list
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O24
The value of an online smoking cessation skills course: a precursor to behaviour change teaching
Wylie, A., Leedham-Green, K., Takeda, Y.
Outline of work
Smoking cessation training offers students evidence-based approaches to behaviour change. The NHS online training course for Stage 1 smoking cessation provides successful medical students a certificate, usually only available to NHS employees. This option online course was available to students during 2011-12. Student reactions to this project were explored through focus groups.
Background
With limited curricular time and behaviour change facilitators, this online NHS option was set up. Clinical students (N=1,200) were invited to do the NHS Stage 1 online course. Approx 110 students successfully completed Stage 1 during the academic year.
Research
Successful students were invited to focus groups, 3 in total, and 24 students participated. The topic guide aimed to explore why the students did this, problems encountered and what they gained. This was part of a broader ethically approved research programme. NVivo 9 was used for thematic analysis.
Results
Participants stated this was easily to accommodate into their studies, it prepared them to respond and communicate with patients who smoked, enabled them to feel confident and constructive with patients wanting to quit, and they reported insights into how this could facilitate skills development for behaviour change interventions. Studnts felt that this should be compulsory and examined at OSCE, however they felt there may be limited relevance if they were not able to apply skills during their clinical placements.
Discussion
The data is limited to an enthusiastic minority, able to attend the focus groups. The challenge will be to enable all students to complete this course and apply their skills in clinical context. To that end students have been advised to do this course during Phase 3 (first clinical year) and that all should have at least Stage 1 before graduating. We are currently running a pilot study enabling students to be hospital-based smoking cessation advisors during their chest rotations.

O25

"I don't want to look like an idiot" Simulation based education: The relationship between motivation, relevance and realism

Owen, L., Ker, JS.

Learner attitudes and motivation have a significant influence on learning outcome. (Mann 1999; Kusurkar, Ten Cate et al. 2011) There is little literature exploring this in simulation based learning. This presentation reports a qualitative research study which reveals the relationship between motivation, relevance and realism in simulation based medical education. A deeper understanding of these factors will inform course designers as they consider both the processes of simulation based learning as well as seeking robust evidence for effectiveness (Issenberg, Ringsted et al. 2011). Seven group interviews were carried out with doctors from a range of medical speciality and career stages. A thematic analysis identified key themes which emerged in relation to learner motivation.

A significant finding was the importance participants placed on realism in their motivation, closely related to their perception of relevance. Participants describe physical, semantical and phenomenal realism as important in their intention to participate in simulation based learning. (Dieckmann, Gaba et al. 2007) Participants described motivating factors such as opportunity for deliberate practise, the provision of good quality feedback, the opportunity for team-working and self-observation. An interesting finding was that participants described de-motivating factors to engagement such as such as peer scrutiny and fear of embarrassment: "I don't want to look like an idiot"

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O26

"Turning community volunteers into standardised patients: A key factor in the successful development of our Clinical Skills program"

Rasalam, R., Woolley, T.

Background

The Clinical Skills Unit (CSU) at University (JCU) School of Medicine & Dentistry (SMD) has had a significant impact on medical students skills. A major reason has been the community volunteer program, and its integration into CSU teaching activities.

Commenced in 2003, the volunteer program was initially a resource for medical students to practice clinical skills. However, with additional training many have evolved into standardised patients, and become an essential component of several successful, CSU teaching activities. These include the female and male clinical teaching associate program (CTA & MTA) to facilitate male/female intimate examination, the integrated clinical scenarios (ICS) to introduce scenario based integrated anatomy/radiology/clinical examination, and the simulated GP clinics.

This talk presents student feedback and specific evaluations of the MTA, ICS and simulated GP clinic activities.

Results

MTA program: statistically significant improvement in Year 4 students' confidence in male intimate examination, plus improvement in knowledge of anatomy and ability to counsel with patients. Post-MTA Year 4 students were significantly more confident than Year 5 students who had not undertaken the MTA sessions.

ICS program: 41% and 39% of Yr 2 students, responded that the ICS helped them get a better MSAT score either 'a little' or 'a lot'. 27% and 66% of Yr 2 students responded that the ICS improved their overall confidence in undertaking physical examinations either 'a little' or 'a lot'.

Student feedback on CSU between 2010 and 2012: show consistently high ratings with many students highlighting the benefit of practising on 'real' patients.

Simulated GP clinics program: To be conducted in 2012.

Conclusions

The volunteer program at JCU has had a measurable impact on the learning of medical students. The volunteer program continues to evolve with increasing student numbers and incorporation of simulation technology into the curriculum.

O27
Using Point of View (POV) Video Glasses for Self-assessment of Clinical Skills
Metcalf, H., Dwyer-Jones, D., Saunders, R.

The use of video recorders as an effective teaching and learning tool has been utilised in a number of educational settings. Minardi and Ritter (1997) suggest that one of the main advantages of video recording analysis is that it can provide the learner with immediate feedback on the skills they have practiced. Within the clinical skills learning environment, student nurses are required to be actively involved in the feedback process in order to develop their self-assessment skills. It is this concept of self-assessment when using Point Of View (POV) video glasses that was the focus of this study.

Following a brief instruction and practice period, first year nursing student nurses at a University in Western Australia were able to perform an aseptic technique while wearing the POV glasses. Subsequent analysis of the audio and visual recording of their practice enabled students to self-assess their performance against a competency assessment tool.

Using a mixed method approach, data was gathered about students' reflections on using the POV glasses. Results demonstrated that students found the POV video glasses easy to use, developed confidence in using video recording and playback and were able to reflect on the value of self-assessment to improve clinical skills.

Session 3 – Keynote Plenary

Salone
KA01
Using Electronic Objective Structured Clinical Examinations (eOSCE) in clinical skills education: Do these technologies live up to the promise of reducing administration time, improving student feedback and facilitating better learning outcomes?
Professor Trevor Russell

Clinical examinations are essential in the education of health practitioners, with the overall aim of enabling the student to demonstrate through action that they have acquired the requisite knowledge and skills to be safe and effective in practice. Traditionally, the Objective Structured Clinical Examination (OSCE), where examiners assess students performing clinical activities on real or simulated patients (actors), has been a mainstay of health education. Conventional OSCEs require the marking of student performance on a paper form and later re-entry of data into a digital medium. A number of difficulties are associated with this process including: (1) on paper forms, specific elements may be easily overlooked resulting in incomplete data sets for students; (2) re-entry of large numbers of paper OSCE forms into a digital medium is both time consuming and prone to transcription errors. Often only critical information such as grades are transcribed while other important information such as examiner notes on student performance are only retained in paper form rather than in the permanent record; (3) there is little opportunity for immediate specific feedback on student performance, and so feedback is usually delayed. This can result in a lost learning opportunity, and often feedback is generalised to group performance rather than individual. With growing class sizes, providing individual feedback for large numbers of students can be challenging and time inefficient; (4) conventional OSCEs have been demonstrated to have variable reliability.

The electronic OSCE (eOSCE), the use of computing and telecommunication technology to assist in the organisation, grading and collation of OSCE examinations, is perhaps a natural evolution of the paper-based process. The eOSCE promises to solve many of the issues associated with paper based OSCEs by validating data at the point of entry and eliminating transcription errors, by providing a mechanism for the immediate distribution of feedback to students and by potentially improving the reliability of the OSCE through the inclusion of decision support systems. However, as with the introduction of many higher education technologies, these promises cannot be accepted blindly on face-value and require rigorous field testing to validate the claims.

This presentation overviews the key design components of a comprehensive eOSCE system and examines the utility of the eOSCE in health education with reference to the following themes:
- *Do eOSCEs reduce administration time?*
- *Are eOSCEs reliable?*
- *Do eOSCEs improving student feedback and facilitating better learning outcomes?*
- *Are students satisfied with the learning outcomes of eOSCEs?*
- *Are examiners and course co-ordinators satisfied with the eOSCE?*

These themes will be considered for both pre-clinical and clinical eOSCEs using both simulated and real patients.

Session 4 - Keynote Plenary

Salone
KA02
Filling the curriculum gap with Simulated/Standardized Patients
Director Gayle Gliva MCConvey
Simulated/Standardized Patients (SPs) were introduced in 1964. Since this introduction into medical education, the responsibilities and roles they have played in the medical and health professions curricula has evolved. No longer are they people who "pretend" to be sick to allow students to practice on them.
SPs contributions in medical curricula and the greater community cannot be understated. In the face of on-going challenges such as; new curricular requirements for competency achievement, larger class sizes that require more time and resources, and finite opportunities for learners to become proficient at certain procedural and patient management skills within a clinical context, SPs can provide an educational solution. Additionally, because current clinical environments demand new programming and patient safety considerations, simulation has become an increasingly important tool to achieve and maintain practitioner competence and maintenance of certification. SPs insert easily to meet these demands.
This presentation provides a glimpse at the range of skills and responsibilities that SPs have been trained to perform. These skills range from teaching communication behaviours to assessing physical examination techniques to teaching suturing and ultrasound procedural skills to portraying active members of a healthcare team to hybrid simulations. The range is limitless.
SPs are successfully filling the curriculum gap as partners with faculty or as effective facilitators without faculty.

Session 5 - Parallel Full Oral Papers

Salone
FO01
"Talking the talk" - Where language, communication and clinical skills interact: an integrated feedback tool for Nursing simulation
Enright, H.
'Entry to practice' post-graduate Nursing students in Australia frequently do not have a health related background. In spite of this, students are often placed in hospital settings within their first semester of study. For these students, clinical placement can be a daunting experience. Not only are the clinical skills required of them in patient care demanding, but the communication skills required in interactions with patients and colleagues adds further complexity. An effective, safe nurse requires a seamless integration of these skills yet the attainment of these skills requires sophisticated communicative ability. For student nurses from CALD (culturally and linguistically diverse) backgrounds, this can be even more challenging. On observation of our CALDB nurses in clinical placement, the complexity of language, communicative competence and intercultural skills required in their interactions was apparent. Many nurses reported problems in communication around clinical activity. This was confirmed by observation, and clinical educator and patient feedback.
In response to this we designed a clinical communication simulation program to integrate clinical assessment skills, language, communication and cultural competence in a safe, practice environment. The filmed session simulates three kinds of interactions: handover, an initial patient assessment and clinical buddy discussion. A feedback tool was devised providing feedback from a clinical lecturer, communications lecturer, and peers. This paper discusses the simulation program, feedback tool and evaluation conducted. It outlines educational principles that underpin the program; learner-centred methodologies, collaborative design, critical reflection, feedback and peer review as essential components of post-graduate nursing simulation. On evaluation, nurses reported increased insight into their clinical skill level and communicative ability whist educators were able to judge the effectiveness of their teaching practice. This paper may be of interest to nursing educators and health professionals working in curriculum design and simulation.

FO02
Flipping the coin: exploring the professional development of clinical educators
Stewart, J.
The professional development of the clinical educator is rarely explored in current research into clinical skills. Typically the focus is directed towards student learning and professional development or to the teaching and assessment methods employed. Yet, once qualified, clinicians quickly move into the role of clinical educator and have to supervise students themselves. This presentation 'flips the coin' to consider how those responsible for delivering clinical education learn to become educators.

This study, set within an interpretive research paradigm, draws on narrative inquiry (Bleakley 2005) to explore the experiences of a group of speech and language therapists (SLTs) in the UK and extends the work done by McAllister (2001). Participants were asked for their stories of how they learnt to be a clinical educator and a thematic analysis approach was used to inform the author's interpretation of their experiences.

Six themes emerged as key in contributing to these SLTs' development as clinical educators and these illustrate the integration of personal experience as both student and clinical educator; formal training; transferable clinical skills; and learning from peers. In their stories, the participants talk a great deal about their own early experiences as students and described how important those experiences were in shaping how they then enact the clinical educator role themselves. Challenging experiences were particularly vividly recalled. The findings have important implications for those involved with the teaching and learning of both students and clinical educators.

This presentation considers how an understanding of the key elements in the clinical educator's own development might contribute to the design and provision of post-registration training and support for those clinicians responsible for facilitating placement learning.

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FO03
Logistics, innovation, quality assessment and clinical benefits
Rochester, S., Kelly, M., Disler, R., White, H.

To provide each student within a large cohort the opportunity to actively participate in a small group simulation that meets quality indicators is both essential and challenging for many Bachelor of Nursing programmes. This paper, as part of a larger longitudinal study, describes one innovative approach to managing simulation for 375 1st year nursing students. Despite logistic and resource challenges, faculty devised a means of rotating students through a skills review and simulation experience during a dedicated 'simulation week' prior to clinical practicum. Innovative aspects included multiple lab use, the employment of clinical facilitators to assist with clinical skills review and the simulation, and the development of a preparatory DVD which ensured consistency across the experience for students and staff. In addition, the simulation was designed with regard to curriculum pedagogies, goals and learning objectives. The student perspective on the simulation experience was accessed through focus group data and evaluated against quality indicators for simulation as suggested by Arthur et al. (2010). Twelve student volunteers drawn from two tutorial groups participated in the focus group. The following themes emerged from the data: knowing what to expect; assuming roles; authenticity and thinking on your feet; feeling the RN role; and, preparation for clinical practice. The simulation experience met the objective of building on student learning from the previous semester. It specifically targeted the stage of development of the 1st year student participants whose understanding of the registered nurse role and associated skills was limited. Importantly, these students were exposed to a contextualised scenario and RN practice within an authentic environment where they were able to 'feel' the RN role and the need to develop associated clinical skills. This paper demonstrates that it is possible to provide students in large cohorts with quality simulation experiences that impact positively on clinical competencies.

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Sala Veneziana
FO04
iSoBar as a teaching framework and considerative checklist for clinical rounds in an inter-professional student training ward
Stewart-Wynne, E., McComish, M., Della, P., Brewer, M., Geddes, F.

Ward rounds are an integral part of patient care with junior medical officers and allied health professions traditionally taking passive roles in this hierarchically bound clinical routine. While the literature suggests that interdisciplinary collaboration (Halm et al., 2003)) and applying systematic approaches to ward rounds (Herring, Caldwell, & Jackson, 2011)) result in improved patient outcomes and reduced clinical errors, research identifying suitable training protocols to ease the transition for students from observing ward rounds to actively participating in them is limited(Nikendei, Kraus, Schrauth, Briem, & Junger, 2008). This presentation reports preliminary results of a video reflective study of ward round practices in the Inter-professional Student Training Ward (STW) at Royal Perth Hospital. An iSoBAR framework was developed to assist final year students evaluate and conduct inter-professional ward rounds. Video recordings of STW rounds conducted using the iSoBAR tool were compared with recordings of rounds conducted without the checklist. Comparisons in relation to common errors and omissions in clinical information, communication quality, organisation and team involvement are presented. Patient and student opinions regarding the efficacy of their experiences are also presented. This study demonstrates how adopting a tool such as iSoBAR can provide students

with a common structure to logically integrate patient information and tasks for ward rounds.

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FO05

Preparing students to work as members of interprofessional health care teams – reflections of graduates

Levett-Jones, T., Gilligan, C.

Background

One of the key goals of universities is to prepare students for their professional roles. This is especially true of health students where patient care and indeed patient safety depend on the skills that health professionals acquire during their undergraduate education. Consequently communication skills teaching has featured in health curricula for a number of decades. However, despite the deficiencies in communication between health professionals and recommendations for improvement are major findings in many quality improvement investigations[1].

To address this issue interprofessional education (IPE) has been proposed as a vital strategy for enhancing students' ability to work as part of an interdisciplinary team[2]. "IPE occurs when students from two or more professions learn with, from and about each other to improve collaboration and the quality of care"[3]. The fundamental premise of IPE is that if students from different health professions learn together, they will develop interprofessional communication and teamwork skills and be better prepared for collaborative practice, ultimately leading to improved patient outcomes[4].

Method

In 2012 focus groups with 90 recent nursing, pharmacy and medical graduates were conducted in three Australian states. The focus groups explored graduates' experiences of IPE and their preparedness to work as part of an interprofessional team upon graduation.

Findings

Graduates reported that they were not well equipped to work as part of an interprofessional team and that as a result patient outcomes were negatively impacted. This presentation will profile some of the clinical stories that the graduates shared that illustrate the relationship between ineffective teamwork, communication and patient safety.

Conclusion

The insights and experiences of graduates in this study have provided rich, data to guide the design and implementation of IPE initiatives to improve students' readiness for practice and their capacity to work effectively in health care teams.

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FO06

Interprofessional supervision in a clinical context: is it possible?

Chipchase, Allen, S., Eley, D., McAllister, L., Strong, J.

Background

Our understanding of the qualities of clinical supervision is based on uni-disciplinary clinical education models. There is little research regarding the qualities needed in the supervisor role for interprofessional placements. This paper reports the views of medical and allied heath students and supervisors on the characteristics of clinical supervision in an interprofessional, international clinical placement.

Methods

A qualitative study involved semi-structured interviews of eight health professional students (medical, physiotherapy, speech pathology and occupational therapy) and four clinical supervisors before and after an interprofessional, international clinical placement. Each interview was digitally recorded and transcribed verbatim. Each transcript was coded, line-by-line and a coding frame developed. The research team collaborated to compare themes from the coding process.

Results

Our findings suggest that in the interprofessional context, supervision from educators whose professional discipline differs from that of the students can be a beneficial and rewarding experience. Students were satisfied with the

frequency and style of supervision. Characteristics of supervisors deemed important by students included being *supportive*, *sensitive and realistic* about what can be achieved in the setting. However, all participants indicated that a supervisor of one's own discipline was required during the placement. These views were maintained despite students acknowledging that, when faced with situations when a member of their own profession was not available, they used other learning strategies

Conclusions

Our study is the first to present the perceptions and values of students and supervisors on the role of interprofessional supervision in a clinical context. While interprofessional supervision was valued and led to the use of alternative learning strategies, there was agreement that profession-specific supervision was required throughout the placement. Further research is required to understand this view that is contrary to the goals of interprofessional education, especially the aim to prepare graduates for teamwork supervised by professionals different from their own.

FO07

Collaborative Clinical Development: Transitioning students to become health care professionals using a Simulated Interprofessional model

Robinson, N.

Introduction

Following a needs analysis with University of Queensland Rural Clinical School (UQRCS) final year and recently graduated medical students it was identified that a gap existed in student's confidence in transitioning from medical student to junior doctor. Nursing lecturers from the University of Southern Queensland (USQ) were reporting similar concerns among colleagues and Bachelor of Nursing students. A simulated interprofessional learning program was developed so as to assist participants in transitioning from student to clinician.

Methodology

Medical and nursing students work together as a team in a safe and secure simulated health care learning environment to develop the skills and knowledge required for entry into the health care workforce. With actors as 'patients' students work through commonly presented "On Call" and "Emergency" scenarios to develop clinical reasoning and problem solving skills to implement appropriate and safe medical and nursing management plans for their 'patients'. Immediate feedback regarding their progress and performance individually is provided from the perspectives of the actor and supervising senior nursing and medical personnel.

Results

Students have identified:
- The importance of good communication skills
- The importance of teamwork
- Increased understanding of own limitations regarding workplace readiness
- Increased understanding of own and other's role, and overcoming stereotypes

Student evaluation – Quantitative data: Likert Scale 1-5

I feel these scenarios have helped me become more 'workplace ready' - 4.86

Patients ultimately benefit if health care students worked together to solve patient problems - 4.85

Collaborative learning should be a goal of this school - 4.79

Shared learning will help me understand my own limitations - 4.74

Summary

Using a collaborative simulated interprofessional learning program UQRCS and USQ are assisting medical and nursing graduates to confidently transition into the healthcare sector. This program is meeting both student expectations of acceptable performance levels and current health workforce safety reform recommendations.

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FO08

Tailoring Best Practice Guidelines for OSCEs and simulations in nursing and midwifery programs across diverse settings: a multi-site Australian study

Mitchell, M., Jeffrey, C., Glover, P., Kelly, M., Henderson, A., Nulty, D., Knight, S., Groves, M.

Background

Objective Structured Clinical Examinations (OSCEs) and simulations, widely used in health professional education, should be based on sound pedagogical foundations [1,2]. To address this theoretical gap, 7 integrated Best Practice Guidelines (BPGs) were developed and evaluated [3]. Further testing of the BPGs across diverse settings and student

populations was needed.

This multi-site intervention study comprised two aims:

1. Modification of existing OSCEs/simulations according to BPGs,

2. Evaluation from students and staff following modifications to OSCEs/simulations.

Method

Evaluation spanned undergraduate and postgraduate nursing and midwifery programs across 4 diverse urban and remote settings. The team modified existing OSCEs/simulations across the sites by considering how the BPGs could be contextualised for each. Modifications were evaluated using a mixed methods approach including student surveys and focus groups; and interviews of academics. The data were analysed to determine the effectiveness of BPGs in improving the quality of assessment of students' clinical performance and contribution to learning.

Results and Discussion

Across the 4 sites, 691 students participated in revised OSCEs or simulations and 557 students completed post-experience surveys (response rate 80%). A total of 91 students participated in focus groups and 14 staff were interviewed. Student surveys indicated overwhelmingly that the OSCEs/simulation supported their learning and preparation for clinical practice experiences. In focus group discussions, students voiced their satisfaction with the OSCE/simulation experience as it effectively prepared them for practice, specifically increasing their insight and confidence. Academics reported substantial improvement in the BPG-based OSCE citing greater alignment with course learning objectives and improved student performance.

Conclusion

This study provides a transferable set of robust strategies and resources in the form of BPGs for OSCEs/simulations that have demonstrated success across diverse tertiary nursing and midwifery programs. Enhanced OSCEs developed using BPGs have been shown to result in improved quality of students' preparation for workplace situations.

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FO09

Managing deteriorating rural patients: Registered nurses' performance and the impact of the FIRST^{2}ACT training program

Porter, J.

Aim

To examine rural nurses' ability to manage patient deterioration and to measure the impact of the FIRST^{2}ACT training program.

Background

Nurses ability to manage acute deterioration and 'failure to rescue' are of significant concern with questions over knowledge and clinical skills.

Methods

Thirty five nurses from a single ward attended training and completed a knowledge questionnaire and two video recorded simulated scenarios in a rural hospital setting. Patient actors simulated deteriorating patients with an AMI and COPD, and situation awareness was measured. All patient notes from the ward were reviewed for the 10 weeks before and after the intervention (time series analysis) aiming to identify patient management changes.

Results

The patient notes review identified significant improvements in the applicable frequency of observations (p = 0.025), pain score charting (p = 0.001), and improvements in oxygen therapy[1,2].

Knowledge of deterioration management varied with a mean score of 66%. Average skill scores across the two scenarios were low (50%) with many important observations and actions missed. Measures of situation awareness were also low with an average score of 50%. In this study participants tended to focus on single signs and symptoms and failed to use systematic approaches to patient assessment. However, all identified that patients were deteriorating and observations were initiated early.

Conclusion

Knowledge and skills were generally low in this rural hospital sample however data from the patient notes review suggested that the intervention (high fidelity simulation and feedback) enhanced vital sign recording and help seeking behaviour.

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FO10
Effective preparation of learners: Supporting engagement, emotional safety and optimising learning opportunities for the simulation-based learning experience
Ballinger-Doran, S.
Background
Current literature reports a strong relationship between emotional activation and cognitive processing leading to long-term retention of information [1]. In order to optimise learner engagement, safety and participation in the simulation scenarios, learners at our Simulation Centre participate in a deliberate, facilitated familiarisation to the 'patient' and the 'clinical environment' before participating in simulation scenarios.
The purpose of undertaking this study was to examine if learners felt that the familiarisation stage of a simulation course adequately prepared them to engage, participate and learn during and after the simulation scenarios.
Methods
A case study methodology was used, triangulating three data collection methods: 1) Graduate nurses self-rated their emotional state before and after the familiarisation stage and again after participating in the scenarios [2]. 2) Direct observation of the actions, behaviours and verbal interactions of learners during scenarios, and, 3) Semi-structured interviews were conducted at the conclusion of the scenarios to ask learners, if they felt prepared, engaged and safe in the simulation environment, and also what they learned during the scenarios?
Results
Learners reported positive changes in affect after familiarisation and further positive changes after the scenarios on the emotional rating scale, and in the interviews. They were also observed to engage actively in the scenarios and interact with the mannequin as if it were a real person, using non-clinical touch and reassuring language.
Conclusion
The change in self-rated emotional state after familarisation and then after the scenarios provides evidence of the emotional value of familiarising learners to the simulation environment. It also demonstrates that familiarising learners to the simulation environment is a complex phenomenon, requiring a clear methodology and incorporation of multiple elements to establish a safe environment for learners. Direct observation and post-scenario interview data also support the research proposition that the constructs of immersion, safety and potential for learning provide a basis of a theoretical framework for the familiarisation process.
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FO11
"Going through the motions": medical students' experiences of learning and practising physical examination
Vnuk, A., Drummond, M., Wadham, B., McGrath D.
Introduction
Good physical examination skills are fundamental for doctors but research, for example by Ortiz-Neu et al (2001), suggests poor understanding, poor application of knowledge, poor technical skills and poor perception and interpretation. To better understand the discrepancy between the abundance of teaching and the limited learning effects, we focussed on the medical student experience.
Method
Using phenomenology, we sought to understand the lived experience of medical students in years 2, 3 & 4 of a four-year post-graduate medical school through either focus groups or individual interviews. The interviews were audio-recorded, transcribed verbatim and de-identified. Using interpretive phenomenological analysis (Smith and Osborn), themes were identified by the principal author and these were checked by and discussed with the supervisors at three major points during the analysis.
Results
The dominant themes emerging from the interviews were the approaches to teaching and assessment that led to superficial and performance-oriented learning (with lack of perception) by students rather than deep mastery-oriented

learning, worsened by the constant dilemma of whether to study for exams or to study to be a doctor. Additionally, emotional experiences like initial physical examination on peers and intimate examinations on patients were dealt with through intellectualisation, which also assisted with the development of role and identity as a doctor.

Discussion

The results are discussed in terms expertise development (Ericsson, 2004), consequential validity (Cilliers et al, 2012), suppression and transformation of emotions (Smith & Kleinman, 1989) and the development of role and identity (Haas & Schiffer, 1982).

Conclusion

Though we endeavoured to add to the general scientific knowledge about teaching and learning of physical examination, we have found that the results have had serious and unexpected ramifications for the local practice of teaching and assessment.

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Sala Giochi
FO12
Grades or no grades in formative workplace-based assessment
Lefroy, J., Jones, R., McMinley, RK., Cleland, J.

Background

Research in formative assessment has led to the conclusion that grades may neutralize feedback about the task (Hattie & Timperley 2007). Much of this research has been in school children and non-medical higher education and may not transfer to medical education because the self-regulatory focus of a trainee must include self-awareness with reference to a standard of competence. Training in self-monitoring is therefore an important element of formative feedback. Medical students seem more interested in grades than in qualitative feedback (Norcini & Burch 2007) so it is important to examine the meaning of grades to them.

This study examines learners' perceptions of whether grades add to or detract from the effect of feedback on their motivation and performance.

Methods

Year 3 students in a UK undergraduate medical programme were invited to take part in a crossover trial. Participants were randomised into two groups. Group One received their first workplace-based assessment (WBA) with grades, the second WBA without grades; both with feedback. The order was reversed for Group Two. Participants then completed an on-line survey to state their preference (grades or no grades) for the third WBA, giving reasons. These preferences were explored further via semi-structured interviews at the end of the block. Interviewees were stratified by the spectrum of achievement.

Results and Discussion

Eighty-nine (62%) students in Year 3 consented to participate. 77% of these chose to have grades with their third WBA feedback (23% chose no grades). Twenty-five students were interviewed. Data collection took place from May to July 2012. Analysis of the qualitative data was framed by motivation theories of goal orientation and self-efficacy (Dweck & Leggett 1988; Bandura 1997). Preliminary data analysis indicates that feedback and grades have different but complementary meaning for students. Grades generally anchor the feedback but also create various types of dissonance.

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FO13
Establishing a Mentorship Program in a New Medical School: The Bar-Ilan Experience
Gilbey, P., Reis, S., Luder, A., Dickman, N., Weingarten, M.
Background
A fifth Israeli medical faculty was opened in late 2011 in the Galilee. Reported benefits of mentorship programs led us to implement our own.
Program
We have added to the core mentoring task, reflective writing, and community involvement components, and an extended patient experience.
Results
A faculty member was assigned as a mentor to each of the 70 first-year students. Four faculty development meetings for mentors were held during the first academic year (run by SR). Mentors self-assessed their mentoring skills before and after the first year, reported on their mentoring activities, and participated in an on-line forum. Students and mentors filled a feedback questionnaire at the end of the first year. All these are presently being analyzed (by ND). Preliminary results show: moderate to high student and mentor satisfaction, progress in the mentors' perception of their mentoring skills, and difficulties in the reflective writing and extended patient components.
Conclusions
The program has been well received, but is in need of further development. Modifications implemented so far include: transferring the community project and extended patient experience to other programs which offer better coordination and supervision, revisiting the reflective writing component for both faculty and students, and fine- tuning the program evaluation.

FO14
Use of Standardized Patients in a High Stakes Assessment of Practicing Physicians: The UC San Diego, Quality Improvement in Correctional Medicine (QICM) Program
Bazzo, D., Norcross, W., Boal, P.
The UC San Diego Quality Improvement in Correctional Medicine (QICM) Program provided clinical competency assessment and focused remedial education to medical professionals who deliver primary care in the California Department of Corrections and Rehabilitation (CDCR). As a result of a Federal lawsuit, the CDCR was been mandated to have all non-board certified primary care physicians undergo a high stakes assessment of their clinical competence. A component of the assessment was a ten station standardized patient evaluation. Utilization of standardized patients has been commonplace in medical school and residency evaluation for many years. To date, few standardized patient assessment of practicing physicians have been high stakes.
A novel scoring method was used for evaluation of practicing physicians. Previous research has had mixed results when comparing standard check-list scoring versus global assessment.
Check-lists that look at process have been useful for the novice, but some consider not accurate for the evaluation of the practicing physician. Patient cases used in this assessment are also utilized by medical students.
Standardized patients scored the interaction based on check-lists developed for the specific cases. Global assessment ratings were provided by trained faculty physicians (expert reviewers) after viewing each encounter via digital recording. Ratings (scale and descriptors) were based on a modified Mini-CEX rating scale. Practicing physicians did not perform as well as students when check-list scores were compared.
The unique circumstances in the CDCR have afforded the opportunity to use this assessment for the evaluation of practicing physicians in a high stakes manner. Use of standardized patients is an acceptable method for evaluation of practicing physicians, but the usual "check-list" may not be sufficient to fully evaluate them. A global assessment rating scale should be considered when assessing clinical competence of practicing physicians.
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FO15
Workplace Affiliated Simulated Patients (WASPs): The development of a cohort of SPs to support multi-professional education in a large teaching hospital emergency department (ED)
Coffey, F., Whitfield, A., Ready, S.

The translation of learning from a simulated to a work environment is a major challenge. Simulation undertaken within the workplace can improve service delivery and impact on patient outcome. The majority of such in-situ simulation has been undertaken with manikins.

The ED is a stressful, complex and time critical environment where clinical competence and good communication, team working and other human factor skills are essential. Traditionally cohorts of SPs are independent or affiliated to educational institutions. We have recruited a group of SPs who have been integrated into the multi-professional departmental education team and trained in the portrayal of acutely unwell patients. This presentation will describe the introduction of these WASPs, the challenges and some early evaluations.

Twenty volunteer SPs have completed an initial training programme in the ED focusing on the simulation of acute medical and surgical conditions. The WASPs are used in the clinical environment itself and in the clinical skills area located within the heart of the ED. This proximity facilitates the release of staff and supports opportunistic as well as planned teaching.

Feedback to date has been overwhelmingly positive with ratings averaging 9.1/10 across a number of domains and comments such as "brilliant -different to our other simulation experiences". The WASPs themselves enjoy the "buzz" of the workplace and have a more immediate appreciation of the impact of their involvement.

Challenges to the introduction of the WASP Programme in ED have included personnel and time resources to train the SPs and to develop a faculty with an understanding of the SP methodology.

We believe that WASPs can contribute to the workplace by being an integral part of the local training team and developing simulation skills specific to the area of practice. They provide a readily available educational resource to augment the quality of multi-professional teaching.

Studio 1
FO16
Are male nurses set up to fail? The work of caring in a woman's world
Gartlan, S., Kempe, A.

Caring, both as emotional or psychosocial support and as assistance with activities associated with daily living and treatment is central to the role of nurses. However, current education of student nurses focuses characteristically on feminine sociocultural ideals of nursing care, leaving male student nurses to navigate the healthcare context unaided. This is keenly obvious in the performance of "body work" and the role of comforting through the modality of touch where male nurses, as opposed to female nurses or male medical staff, often find their sexuality questioned or have their care rejected.

This presentation will outline key sociocultural frames which lead to patients' questioning the legitimacy of care offered by males nurses in light of the feminisation and subsequent disempowerment of nursing. It will further offer communicative strategies which male nurses and their female colleagues may employ to overcome these difficulties drawing on concepts from the field of discourse analysis.

FO17
Modelling professionalism in doctors: the influence of early vocational events
Barton, P.
Introduction
Young doctors are immersed in critical care situations soon after graduating (1). The long-term effects of these events have not been well researched, including their effect on clinicians' views of their own professionalism.
Study
As part of a trial of methodology for a larger doctoral study on CPR, a limited qualitative face-to-face interview study of six senior clinicians was conducted. Each doctor discussed their best and worst day as a junior doctor and critiqued why these events remained so memorable, long after they occurred. Thematic analysis, using an interpretive framework of Symbolic Interactionism (2), was undertaken to discern how meaning was constructed.
Results
Narration was for some practitioners openly emotive. They revisited aspects of their young life and usually interpreted these early events with how a doctor should behave. The events themselves were dramatic. The best or worst value assigned to each experience did not directly relate to a positive or negative patient outcome. The adequacy of their skills and knowledge rarely indicated substantive deficiencies in their undergraduate preparation. Rather the professionalism of the junior doctors themself, or that of their immediate superiors, or other senior doctors usually influenced more profoundly the choice of category.
Discussion
Most professionals readily remember events from their early clinical life. With the passage of time such events may be subject to revision. Even accepting this, the learning from these events continues to resonate after many years of clinical experience. Exploring these memories demonstrated common themes about the enduring effect

of professional modelling during early clinical responsibility. For supervisors understanding novice's internal self-concepts of their own professionalism may be as importance as offering calibration with external standards.

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FO18
More than just a scratch – the painful truth about adult and adolescent venepuncture

Gartlan, S., Willetts, G.

Venepuncture is an essential competency for nurses in a wide range of working contexts, requiring the development of technical and complex psychomotor skills. However, nursing students new to the undertaking of this skill are confronted with not only the technical aspects of venupuncture, but the realities of pain, distress and anticipatory anxiety that the procedure affords in our patients.

The current literature addresses this issue predominantly in the paediatric population, not as a matter of ethical imperative, but of practical – "What can we do to this child so I can get my procedure done?" As a result, many of the strategies explored in the literature such as 'pacifier use' are therefore not applicable to adult and adolescent populations, leaving nurses to develop their own ad-hoc strategies.

This presentation seeks to review literature from three prominent nursing databases applied to adolescent and adult contexts in order to shed light on the strategies nurses can employ to fulfil the ethical imperative to reduce pain, distress and anxiety. The review reveals several guiding principles that nurses need to consider when selecting their strategy and highlights the possible psychosocial and physiological risks associated with certain commonly utilised interventions.

FO19
Role modelling in medical undergraduate general practice teaching

Barton, P.

Introduction

The strong influence of the informal curriculum exists in clinical education. Vocational educators offer examples of care giving and interpersonal conduct to learners in their care. There have been student discomfiture in some experiences but has no clear departmental policy on staff training or student problems regarding identification and management of concerns

Problem

Between 2011 and 2012 students were offered a formal debriefing on the conduct of their clinical tutor(s) during the preceding 9 week attachment in MBBS IV. Using a faculty guided peer to peer format, students actively discussed significant issues.

Results

18 student concerns were uncovered over 6 rotations (involving 373 students). These related principally to concerns for their safety during consultations with potentially dangerous patients (6/18), poor GPs clinical decisions or conduct to patients 6/18, and dishonest conduct 3/18. Almost all students reported a marked reluctance to identify their tutors for fear of later academic reprisal.

Discussion

GP tutors are in short supply, good ones even shorter. Our research, currently underway, is developing students and tutors alike, to create transparent mutual assessment of professionalism.

Breakout 2
FO20
Perspectives of educators on the production and value of first person point of view videos for clinical skills teaching and learning in paramedic science

Oprescu, F., Lynch, K., Barr, N.

Background

A central task and challenge for clinical skills education is to design learning experiences that offer the greatest potential for improving teaching and learning practice. For more than two decades there have been calls and attempts to innovate teaching and learning using new technologies. Real-life information converted into text format often suffers from over-simplification. While video has been used for many years to support student learning in a variety of settings, the use of videos from a first-person point of view (POV) it is still in its infancy. Using POV video may lead to enhanced description by the lecturer and better visualisation, recognition and memorisation by the students (Shephard, 2003).

Methods

Two focus groups were conducted with staff involved in the production and use of POV videos for clinical skills development in paramedic science students at a tertiary level institution. The focus groups were transcribed and analysed using an established methodology.

Results

It was observed by clinical skills educators that videos produced from a first person point of view can provide real life or close to real life examples with which learners can identify when they attempt to replicate a clinical skill. Other strategic advantages of using POV videos for clinical skills education included: ability of students to use the videos for self-directed learning outside the laboratory, ability of educators to use more laboratory time for assessment purposes, and ability to teach fine motor clinical skills that are difficult to define clearly in other formats. Educators identified four potential areas for using and studying POV videos: 1) clinical skills education; 2) clinical reasoning education; 3) health communication and 4) informed consent.

Conclusion

Educators involved perceived POV videos as efficient, effective and flexible tools for clinical skills development in students of paramedic science, with potential to expand to other disciplines.

FO21

Re-uniting Clinical and Communication Skills Teaching for medical undergraduates

Joekes, K., Tincknell, L.

Introduction

Clinical communication is often taught in isolation from other clinical skills at undergraduate level[1]. This lack of integration may suggest to medical students that these skills are indeed separate for clinicians[2], with practical clinical skills being prioritised. Integrating these skills explicitly in teaching has been effective[3]. New teaching sessions at our medical school re-unite clinical and communication components of clinical practice during the Transition (T-) Year, which bridges the pre-clinical years with clinical worksplace learning. The T-year cohort (n=330) took part in these teaching sessions in small-groups (n=7).

Methods

Qualitative thematic analysis of free text comments from student feedback on two integrated teaching sessions; breast examination (n=229) and male catheter insertion (n=303).

Results

Preliminary analysis shows students value integrated teaching. A recurring theme refers to students' main learning point as "understanding that communication and clinical skills need to be developed separately but used together". Further themes and analyses will be presented.

Discussions

The re-unification of skill sets is a valuable experience for students making the transition to full time clinical placements. Conclusions about students' improved performance with real patients or in OSCE cannot be drawn from these results. Additional costs in running integrated sessions versus benefit for learning needs further evaluation.

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FO22

Resident as a clinical teacher: a qualitative research in Iran

Shakour, M., Yamani, N., Badrian, M., Bazrafkan, L

Introduction

Residents like clinical instructors have an important role in clinical teaching in medical faculty. They spend long time of being in hospital to teach medical students and junior residents. Study of resident's experiences could help us to improve the clinical teaching process. Then we studied resident's experiences as a clinical teacher.

Materials and Methods

This study was qualitative, and method was descriptive phenomenological. Samples were residents and were selected by goal-oriented sampling. Data collection was via audio interview. Sample mass was 12 participants who studied in Isfahan University Of Medical Sciences. Depth and unstructured Interview with open and exhaustive questions were used. Data analysis was done by Collaizi method. For trustworthiness and rigor, we used Guba and Lincon criteria.

Results

Data was be compiled from the 8 hours interview recorded by tapes and the verbatim transcription of the interviews. Then researcher formulated the meanings of each significant statement in 77 codes and organized the formulated meanings into following 5 clusters of themes: 1) Confused for teaching, 2)Disappointed in reach to teaching goals, 3) tension between resident and learner, 4) attraction of teaching and learning 5)using different teaching strategies.

Conclusion

The findings indicate the attraction of teaching and learning is an important factor to encourage residents to teach intern, but some factors like lack of planning for teaching and burden of responsibility doesn't allow them to do their role in a satisfying manner and it causes conflict. They are interested to teach other students to learn more and prove

themselves, but they don't know how should teach. They use some strategies according to their old experience when they were students, imitate the role of their present teachers and sometimes invent some strategies. They don't have enough experiences and knowledge to defeat challenges, tensions and answer questions of learners.

FO23
Student evaluation of simulation in undergraduate nursing program using quality indicators: A pilot study
Kable, A., Arthur, C., Levett-Jones, T., Reid-Searl, K.
Background
Simulation has become a widely used technique in teaching clinical skills. While much research has focused on the effectiveness of simulation in comparison to traditional teaching methods, less research has identified the aspects of pedagogy that provide excellence in the application of simulation technologies. A previous Delphi study (Arthur et al, 2012) developed a set of Quality Indicator statements to guide the design and implementation of simulation learning experiences.
The current pilot project has utilised a set of instruments to test the application of the Quality Indicator statements.
Aim
The objective of this paper is to report results of student evaluation of the implementation of evidence based quality indicators for simulation experiences in undergraduate nursing programs in 2012.
Study Design
The student evaluation instrument was designed using five specific measures derived from the Quality Indicators. Student evaluations of ten simulation learning experiences in first and second years of undergraduate nursing programs were conducted at two universities in Australia.
Students who participated in any of the ten simulation sessions were invited to complete the evaluation questionnaire. This instrument contained seventeen questions with a likert-type scale.
Results
Eighty-five students participated in the study. Overall, students reported that simulation supported their learning and achievement of objectives, but they did not always feel supported. Student preparation was scored lower than other components of the simulation experience by students, particularly by second year students. Students reported very good scores for perceived realism and fidelity of simulation sessions, particularly the MaskEd™ (KRS simulation) and high fidelity sessions with SimMan 3G. Debriefing was scored very highly overall and this was similar for all approaches used.
Conclusions
The student evaluation instrument was an effective means of measuring the student related Quality Indicators across a range of simulation sessions. It identified areas of excellence and areas for improved delivery for the students' learning experience. It would be desirable to test this instrument more extensively.
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Breakout 1
FO24
A simulated surgical ward round for Transition year (third) medical students – introduction to a low cost, high fidelity simulation and results of evaluation
Tincknell, L.
Introduction
Simulation teaching is well documented but often high cost with expensive equipment.[1,2,3,4] The week before starting surgical placements small groups of transition year students participate in a simulated surgical ward round. They gain experience of learning and communicating in a ward environment, interacting with simulated patients, nurses, doctors and their peers during the experience, whilst also participating in bedside teaching.
Methodology
Evaluation of a feedback questionnaire completed at the end of the session (N=215) and a post-surgical attachment questionnaire. Statistical (ExCel) and thematic analysis was undertaken.
Results
91% of students report an increase in their confidence and feeling of preparation for their surgical attachment. The scenarios and patients are also highly rated for realism. Feedback is particularly valued from qualified tutors (94% excellent) but less so from simulated patients (77% excellent or very good). Thematically the strongest themes are professional behaviour and learning whilst on attachment.
Discussion and Conclusions
This model is highly flexible and is an excellent tool for supporting students transitioning from the skills lab to ward based learning. There are multiple learning outcomes for students during these sessions without including the knowledge aspect of the session. Costs per student are acceptable and enable us to deliver this to 340+ students a year.

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FO25

The perceived impact of learning in a simulated environment on a medical student's performance within the clinical setting?

Stirling, K., Ker, J.

Gaba [1] identifies that the next stage in the development of simulation as a teaching methodology lies in translational research. Small scale research studies have been conducted previously that have shown transference of skills from a simulated to a clinical setting [2]. There is a need to understand the dynamic interaction between the individual and the simulation activity. This research study applied Kolb's experiential learning cycle [3] to understand the individual process of assimilating new learning from a new simulation teaching programme which comprised of the following workshops:

- Developing your team communication skills
- Handling uncertainty and improving your clinical decision making.
- Developing your situational awareness.
- Developing your team leadership skills.

This programme was designed to reinforce prior learning, encourage critical reflection and support the student's professional development. Kolb's experiential learning cycle [3] was used to understand the individual longitudinal effect that assimilating new learning had on a student's clinical practice. Students were asked to complete an open text questionnaire at 2, 4 and 8 weeks following their attendance at a workshop. Thematic analysis of student's questionnaire responses highlighted the following themes relating to clinical practice:

1. An increase in personal confidence in one's own abilities
2. The emerging characteristics of a practitioner
3. A greater focus on delivering patient centred care
4. The role of the student in the healthcare team - eligibility / acceptance into a community of practice
5. The transference of learning – integration and application of new learning
6. The timely access to simulation workshops.
7. The integration of learning into one's own practice

Eight students attended a one hour interview to allow further exploration of their experience of transference and integration of new learning. Students were encouraged to explain in their own words what they perceived to be the personal impact of this new learning. Video analysis of body position, facial expression and verbal behaviour[4] were used to validate themes identified previously and to explore new concepts.

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FO26

Transferring Diagnostic Reasoning Skills to the Workplace Using Simulation

Smith, JM., Rees, CE., Ker, JS.

Background

Accurate clinical skills are vital for diagnostic and clinical reasoning[1]. We aim to explore how final year students use their clinical skills in a Ward Simulation Exercise (WSE) [2-3] and transfer these to the workplace as Foundation Year 1 Doctors (FY1s) to influence their diagnostic reasoning and management decisions.

Methods

Final year medical students were invited to participate in a videotaped WSE and workplace observations as FY1s. Audio-recorded stimulated recall interviews for both were used to tap into how participants used their clinical skills for diagnostic and management decision-making.

Results

19 final year students participated in the WSE and the stimulated recall interviews. 18 participated in workplace

observations as FY1s, both in-hours and out-of-hours, across 10 NHS Trusts and 6 Postgraduate Deaneries. 57 clinical interactions with simulated patients within the WSE and 32 with NHS patients were observed with preliminary thematic and discourse analyses being carried out[4].

Conclusions
Although final year students demonstrate reasonable clinical skills in the WSE and use these effectively to clinically reason for diagnostic and management purposes, within the workplace their clinical skills are more haphazard, with essential components of clinical examinations being missed. The impact of this on their clinical decisions will be discussed.

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O28
The Student Assistantship: An integrated pilot scheme for on-call scenarios
1. Farikullah, J., Mirza, O.
2. Presented by Mirza, O.

Introduction
The student assistantship occurs when students assist a junior doctor under supervision. The GMC states: "It is important to manage time and prioritise tasks when necessary and appropriate".[1] During the current assistantships, there is a lack of teaching on communication skills for preparation to practice as a junior doctor on-call. Students felt they had little experience with on-call scenarios.

Aim
To integrate on-call scenarios with the current student assistantship
To give students the chance to role play on-call scenarios in a safe environment

Methods
25 final year assistantship students were involved in small group sessions. Every student had the chance to answer a bleep. A real bleep was actively passed to students and they had opportunities to role play as if they were on-call and generate management plans.

Results
88% of students strongly agreed that the session was set an appropriate level. Thematic analysis of student's free text answers revealed the most common perception of the session was the usefulness in preparation for practice (80%).

Conclusion
This scheme combines communication skills teaching with real clinical situations and interactive role play. This is a form of experiential communication skill learning, which aims to link current assistantship schemes with on-call scenarios.[2]

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Session 6 - Parallel Workshops

Salone
KW02
Electronic Objective Structured Clinical Examinations (eOSCE): A hands on workshop.
Russell, T.

Purpose
This workshop will provide the opportunity for participants to experience the full lifecycle of an eOSCE using the Mark-Rite™ system. The workshop will provide hand-on experience with the conceptualisation, planning, construction, implementation, and performance of an eOSCE along with the collation of eOSCE grades and the distribution of individualised student feedback.
Objectives: As a result of this workshop, participants will be able to:
1. Describe the key elements of an online eOSC
2. Implement a simple eOSCE including the planning, construction and performance elements
3. Understand the mechanisms used to collate eOSCE results and provide individualised feedback to students
4. Compare and contrast the differences between conventional paper based and electronic OSCE

Rationale

Conventional OSCEs require marking of student performance on a paper form and later re-entry of data into a digital medium. This process is time-consuming and a potential source of error when marks are transcribed across mediums. Further, while immediate feedback is considered critical for optimal learning of clinical skills, there is frequently a delay in providing students with individualised feedback following conventional OSCEs. The eOSCE promises to solve many of these by validating data at the point of entry and eliminating transcription errors and by providing a mechanism for the immediate distribution of feedback to students.

Activities

This workshop will be highly interactive and will see participants implement a fictional eOSCE in their own clinical discipline. Working in pairs, and using the Mark-Rite™ eOSCE system, participants will be guided through the planning and construction of an eOSCE through the web-based portal. Participants will then experience the administration and performance of the eOSCE on a mobile device from the perspective of an eOSCE examiner. Finally, participants will retrieve collated student grades and initiate the procedure for distributing individualised feedback to students.

Sala Veneziana

KW03

Making Healthcare an Effective Learning Environment for Patients

Wolf, M.

The past 2-3 decades have yielded an unprecedented amount of research that has repeatedly elucidated problems in the way healthcare providers and systems routinely communicate, support, and follow-up with patients to optimize treatment benefits and minimize harm. This has resulted in the emergence of the field of health literacy, and a number of practical, evidence-based solutions have now been evaluated with promising results. The challenge now is to disseminate and implement these multifaceted strategies in order to achieve greater healthcare quality and equity, while continuing to understand ways to improve upon these interventions. In this workshop, we will share a health literacy perspective and review specific opportunities to simplify healthcare system demands, improve provider communication skills, and support patients and families' ongoing learning and engagement in a complimentary manner to promote health. Clinical preventive services, medication adherence, and chronic disease management will be contexts in which case examples will provided. A particular emphasis will be placed on incorporating both low and high health and consumer technologies for efficient and sustainable approaches, as well as considerations for 'best practices' in evaluation.

Sala Toscana

W05

A 'speed-dating' approach to developing evidenced-based interprofessional research collaborations in clinical skills education and practice

Monrouxe, LV., Rees, CE.

Workshop Objectives

This workshop aims to:
- Bring together researchers from a range of disciplinary backgrounds for an intensive (and fun) mutual introduction, exploring their potential for research collaboration;
- Provide an opportunity for established and new researchers interested in investigating clinical skills education and practice to offer their skills, knowledge and enthusiasm to the group;
- Introduce shy (and not so shy) researchers to each other, who would otherwise not get an opportunity to interact at the Fifth International Clinical Skills Conference in Prato.

Intended Audience

This workshop will be of interest to a diverse group of experienced and new researchers from a range of disciplinary backgrounds:
- Healthcare professional education researchers from all backgrounds (e.g. clinicians, social scientists, statisticians) with varying levels of healthcare professional education research experience.
- Healthcare students who are willing to offer their time to established researchers in the field in order to gain education research experience and publications.

Abstract

Despite 'evidenced-based interprofessional collaboration in clinical skills education and practice' being a key theme of this conference, and increasing calls for international collaboration in medical education research, few studies include multiple sites across different countries.[1-3] In August 2012, we published a commentary to stimulate discussion about international collaboration and encourage its thoughtful use.[1] This workshop aims to build on this commentary, aspiring to provide a unique opportunity for researchers to pool resources and share information about research interests. Like speed-dating, we will bring together numerous researchers for short periods of time to enable researchers to meet possible collaborators.

The speed-collaboration exercise is modelled on "speed dating", comprising three key components, 'the pitch', 'the wall' and 'the date', so researchers can make visible their work and/or research interests and identify collaboration points.

The pitch: Participants have a strict 45 second solo slot to make their 'pitch'. This slot is theirs to use to introduce themselves to the group and comprises their name, institution and a brief statement about their 'perfect' research collaborator/collaboration.

The wall: Participants will all be provided with a set of sticky-notes on which to write key words indicating (a) research skills offered; (b) research skills wanted; (c) the country they work in; and (d) their professional background.

The date: Participants are seated in two rows opposite each other. Each 'date' lasts only 2½ minutes and participants are given a bell half-way through (to ensure that both have an opportunity to speak). At the end of the date everyone moves to a new prospective collaborator.

Speed-collaboration is a fun way to meet new colleagues, to network and find innovative collaborations. Please come prepared and committed to sticking to time, and with participants' permission we will be happy to share participants' emails with each other so you can follow-up potential research collaborations.

Summary of instructor's qualification and prior experience

Lynn and Charlotte are experienced medical educators and medical education researchers. Over the last 10 years, they have facilitated numerous workshops at national and international conferences, many of which have been invited workshops. They have nearly ten years' experience of working together as research collaborators, and also co-facilitating educational events such as seminars, and workshops, and their feedback from workshop participants has been overwhelmingly positive over the years. In 2012, Lynn participated in the 'Welsh Crucible' for research leaders in Wales and the 'speed-collaboration' exercise is adapted from this. During this exercise she discovered unanticipated potential for research collaboration.

Maximum number of participants

24.

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Sala Giochi

W06

The Simulated Ward Round experience: Involving patients from a 'Patients as Educators' (PAE) Programme Sharing practical experiences between the Universities of Sheffield and Manchester, and the teaching hospitals (NHS Trust) of Sheffield and Lancashire

Hague, M., Burney, A., Hanslip,J.

Workshop Objectives

1. Develop an understanding of the opportunities that 'Simulated Ward Rounds' (SWR) presents within the context of curriculum development and the changing healthcare delivery

2. Determine some general principles about the safe and effective involvement of patients during a simulated ward round.

3. Share experiences and expertise with participating delegates and network informally.

4. Discuss the stories of some of the 'Patients as Educators group' who will share their experiences from the simulated ward rounds.

5. Share and discuss our students' experiences regarding the simulated ward rounds.

Background

The Sheffield Model

As an adjunct to the clinical experience gained in primary care and hospital settings 'Simulated Ward Rounds' (SWRs) were introduced for fourth year medical students in January 2007 and focussed on renal medicine.

Feedback from both students and patients has been extremely positive. The students have found 'SWRs' to be a very helpful learning experience. Students have the opportunity to see real patients in a controlled setting and the patients, our 'PaE' programme offer personal experiences of their illness and provide powerful feedback for the students.

In April 2008, the concept was extended to offer a 'Simulated General Ward Round' to the final year students prior to their clinical competency assessments. As a result of the success of the simulated ward rounds for fourth year and final year medical students, mixed case simulated ward rounds for the third years were introduced in 2008.

The 'Simulated Ward Rounds' provide students with the opportunity to engage with real patients who are recruited from the 'PaE programme'; obtain systematic clinical histories from patients with a variety of existing clinical conditions; carry out physical examinations of the major body systems; and undertake non-invasive clinical skills. Furthermore these SWRs help students develop their communication skills and professional attitudes.

The Volunteer Retired Doctors (VRD) group and the Academic Foundations doctors help facilitate the simulated ward rounds and provide timely, constructive feedback to the students.

The Preston Model

The Patients as Educators Programme commenced in Preston in July 2010 and although patients had been involved previously, they had been recruited only for exam purposes and not for any teaching prior to student's exams.

It was felt that the best experience a medical student could receive would be to provide a realistic version of life on a ward how it actually happens. Therefore the virtual/simulated ward round was developed, which is a 'mock' ward environment organised within the education centre. The students approach patients utilising communication skills, they take the medical history and physically examine the patient. Following this interaction with the patient the students would present their case to the whole group and then suggest suitable treatment or therapy to the consultant/facilitator who also provides support and guidance on the mock ward. In addition there would be skills facilitators acting as other hospital staff interrupting the students whilst with patients, trying to provide as realistic an experience as possible of the demands on a doctor on a real ward.

Virtual/Simulated ward rounds were evaluated positively and are now embedded within the timetable for year 4 in neurology and rheumatology with plans for continued developments in all years.

Intended Outcomes

To help participants develop an understanding of the key concepts regarding a 'Simulated Ward Round (SWR)' programme conducted at Sheffield and Preston, and consider how they might incorporate these concepts in their current teaching practices

To network and share experiences with participants who currently engage in similar activities within their undergraduate medical curricula, and are interested in the development or expansion of a unique teaching programme.

Activities

- The activities and experiences from Sheffield and Preston will be presented.
- The workshop intends to be highly interactive, helping participants to develop an understanding and application of the key concepts of a 'Simulated Ward Round (SWR)' programme.
- The participants will be encouraged to take part in small group discussions and share their individual experiences with the rest of the delegates.
- Discuss the strengths of simulated ward rounds as a teaching and learning tool and the challenges faced regarding the delivery of a 'Simulated Ward Round (SWR)' programme.
- Participants could then use this experience to help develop similar programmes or expand existing programmes within teaching, learning and assessment practices.

Intended Audience

The workshop is intended for all healthcare professionals, who involve patients within their current teaching programs, and are interested in the development or expansion of a unique teaching programme. The 'Simulated Ward Round (SWR)' programme actively involves NHS patients to be part of clinical education and training of undergraduate medical students.

Studio 1

W07

"Students: smarter than they think?" - Developing clinical reasoning skills in clinical settings through the use of constructive questioning and feedback

Gay, SP., Bartlett, MH., Lefroy, L., Ambrose, L., McKinley, RK.

This workshop builds on a clinical reasoning workshop held at Prato 2011. Participants will have opportunity to discuss different approaches to reasoning skills development within clinical practice.

Objectives

Following the workshop participants will be able to:

- Recognize opportunities to strengthen the teaching of clinical reasoning within their clinical environment
- Evaluate students' individual clinical reasoning learning needs.
- Identify new opportunities for patient participation in clinical reasoning teaching
- Discuss current opinion about teaching and learning clinical reasoning
- Reflect on their personal experience of learning and teaching clinical reasoning

Intended Audience

Those with an interest in the development of clinical reasoning skills for health care practitioners. No previous experience required.

Context

Clinical reasoning and clinical management skills are important parts of medical student learning alongside on-going development of communication skills, with the expectation that clinical decision making and patient safety will be improved[1,2,3].

Format

1. Introductory Plenary – to orientate delegates to the aspects of clinical reasoning which will be considered and to ensure delegates have a shared starting point.

2. Clinical Reasoning in Diagnosis – In small groups, delegates will observe clinical consultations by students as a stimulus to discussion of clinical reasoning learning opportunities and various methods which can address them. The discussion will include de-briefing of the student.

3. Clinical Reasoning in Management – a similar format, with the emphasis on decision making in clinical management.

4. Moving from simulation to the bedside – the closing discussion will bring together the reflections of the attendees

and focus on constraints on teaching clinical reasoning in real-time clinical practice, and some potential solutions.
Maximum number of participants
40
Reference List

[1] Makeham M.A.B., Stromer S., Bridges-Webb C ., Mira M., Saltman D.C., Cooper C. and Kidd M.R. (2008) Patient Safety Events Reported in General Practice: A Taxonomy. *Quality and Safety in Health Care* 17, 53-57.
[2] Kohn L.T., Corrigan J.M., Donaldson M.S. (2000) *To Err is Human: Building a Safer Health System.* The National Academies Press: Washington, DC.
[3] Vincent C., Neale G. and Woloshynowych M. (2001) Adverse Events in British Hospitals: Preliminary Retrospective Record Review. *British Medical Journal* 322, 517-519.

Breakout 2
W08
Professional Delivery of Clinical Reasoning in Medicine
Hammond, A., Henderson, J.
Objectives
To consider the specific challenges for students in developing clinical reasoning skills in contemporary systems-based curricula.
To consider case vignettes portraying specific student cognitive-processing difficulties in diagnostic reasoning and design a teaching approach to address these difficulties.
To share best practice with colleagues
To watch and discuss one example of teaching and learning practice demonstrated in the authors' DVD recording of an innovative teaching session
Workshop Summary
A brief presentation will explore recent evidence in current literature regarding clinical teaching in this area.
The delegates will work in small groups on real case vignettes bringing these specific student cognitive difficulties to life. This will enable delegates, in collaboration, to generate suitable teaching and learning approaches for consideration by the whole group.
Watching the authors' own demonstration DVD depicting an innovative teaching approach will stimulate further discussion and reflection on incorporating novel approaches in delegates` own teaching.
There will be time for Questions/Answers and sharing best practice with other delegates.
Prior Experience
The presenters both have extensive experience of developing and delivering clinical skills teaching in the core undergraduate curriculum and teaching and training of tutors in this area.
Anna Hammond and Janine Henderson are also experienced in designing and delivering workshops locally, nationally and internationally including ASME and the 4th ICSC, Prato 2011. We are organising a national HEA conference on Clinical Reasoning in October 2012.
Intended Audience
Those involved with clinical skills teaching in undergraduate training. Maximum number of delegates 24

Breakout 1
W09
Simulation for high stakes assessment
Gale, T., Roberts, M., Sice, P., Anderson, I.
Background
Simulation provides many opportunities to carry out assessment of participants and a recent review of simulation-based literature outlined the importance of good quality assessment using simulation.[1] McGaghie et al. highlighted that:
   • opportunities should be provided for both formative and summative assessment
   • high stakes testing procedures should be established at undergraduate / postgraduate level including licensing of professionals
Target Audience
   • Simulation providers / experts with an interest in assessment
   • Assessors for undergraduate and postgraduate programmes
   • Interviewers for undergraduate / postgraduate recruitment
Aims and Learning Outcomes
1. Familiarise attendees with opportunities and methods for using simulation as an assessment method
2. Understand differences in using checklist versus global rating scores
3. Examine ways of standardising simulation scenarios for assessment
4. Understand principles underlying best practice in good quality assessment
Format of Workshop
An introductory presentation will cover principles underlying good practice in using simulation for assessment with examples of different levels of fidelity used in various professional contexts. Scoring methods which have been

developed for assessment of technical and non-technical skills will be discussed.

The facilitators will demonstrate a simulation station which is used as part of a 5-station selection centre approach[2] for postgraduate recruitment to anaesthesia training programmes. The "live" simulation scenario will incorporate a simulated manikin, two nurses and an applicant for specialty training (in role play). Facilitated group discussions will then cover:

- Use of checklists versus global rating scores in different contexts.
- Techniques to standardise scenarios.
- Advantages / disadvantages of simulation versus other assessment methods.
- Opportunities for introducing simulation into an overall assessment programme.

Reference List
1. McGaghie WC et al. Med Educ 2010; 44(1):50-63.
2. Gale TCE et al. Br J Anaesth 2010; 105(5):603-9.

Instructor Details
Thomas Gale: Associate Professor and Lead for Clinical Skills, Peninsula Medical School, Plymouth University.
Martin Roberts, Statistician and Research Fellow, Peninsula Medical School, Plymouth University.
Paul Sice: Lead for Faculty Development, Peninsula Simulation Network
Ian Anderson: Director of Peninsula Simulation Suite, Plymouth Hospitals NHS Trust

Session 7 - Parallel Workshops

Salone
KW04
Researching practice-based learning: Sociomaterial methodologies
Fenwick, T.

This workshop builds from the sociomaterial theories that increasingly are being used to examine professional practice and practice-based learning (Fenwick et al 2011). The focus here is upon research approaches that are often used within this sociomaterial orientation. It is important to remember that these approaches are not simply technical methods, but more a sensibility: a way of questioning the phenomena and analysing its nuances through what the researcher sees and does. Nonetheless, there are specific methods that can be used to better understand practice-based learning without falling into the traps of over-simplifying or 'flattening out the lumps'. Many of these approaches rely upon an ethnographic mode of research, but even here there are particular questions to use and useful entry points that can help a researcher to highlight the sociomaterial network dynamics of professional practice and learning. There also are useful interview approaches that can help break free of the narrative closure of an individual's selective worldview.

Working with research examples and actual samples of data, participants will be introduced to sociomaterial methodologies such as the following:

- Basic questions to ask the data
- Interview to the double (from Nicolini 2009)
- Choosing and following a 'device'
- Experience sampling
- Diffractive analysis

The workshop also will touch upon issues of the researcher's participation in bringing forth the data, and the problems of representation.

Reference List
Fenwick, T., Edwards, R., and Sawchuk, P. (2011). *Emerging Approaches to Educational Research: tracing the socio-material*. London: Routledge.
Nicolini, D. (2009). Articulating practice through the interview to the double. *Management Learning 40 (2): 195-212*

Sala Veneziana
KW05
The Medium is the Message: Maximizing the use of video before, during and after simulation to cultivate reflective practice and enhance awareness to patient safety.
ZIV, A.

Purpose
The purpose of the workshop is to explore how to maximize use of video pre-, during and post-simulation to foster continuous learning, patient safety awareness and reflective practice.

Objectives
As a result of this workshop, participants will be able to:

1. Analyse the theoretical principles that foster double-loop learning and deep understanding
2. Critically appraise the use of video across multiple learning contexts
3. Analyse video-based scenarios using the MSR Video-Based Debriefing Model

4. Identify video-based learning opportunities in your simulation environment to enhance patient safety awareness

Rationale

The use of video in simulation-based education is wide spread and highly demanding in terms of human, time and technological resources. Thus, it poses a challenge to explore if indeed medical educators optimize the use of video in their training environments as well as possess the skills of effective video-based debriefing which will enable them to convey their educational messages to the learners.

Activities

During this interactive workshop participants will engage in a few exercises and discussions that will explore and highlight various aspects of the use of video in Simulation-based education. These include: exploring the "felt" experience of being video-taped and the creation a safe learning environment that best prepares learners for the video-based simulation experience; the relationship between educational theory and video-based learning and why video-based learning supports double loop learning and fosters deep understanding among learners; the use of a Video-based Debriefing Model (like the one utilized at MSR – the Israel Center for Medical Simulation) as the foundation of structured approach to simulation-based debriefing and also as a mean to enhance learners self-reflection skills and patient safety awareness in real practice; and finally participants of the workshop will become aware through a short brainstorming discussion of how to optimize the use of video to support learning pre-, during and post-simulation. Clinical and educational simulation-based video-taped clips will be used to demonstrate the educational messages of the workshop.

Sala Toscana
W10
Learning to simulate acute medical problems for teaching and assessment
Parle, J., Hyland, J., Barry, K.

Background

Unless they are in their clinical years, health profession students rarely have the opportunity to examine patients with severe acute illness and are never assessed on such patients. This sends a message to the students that it is not expected of them to acquire experience of patients with such clinical problems. This is dissonant with our expectations of them on qualification.

We propose that such clinical scenarios need to be simulated (as is already done routinely with cardiac arrests) and that such simulations can be made sufficiently realistic by the use of experienced, trained actors, and by simulation of symptoms and signs, the latter using both make-up and acting skills.

Objectives

By the end of this workshop, participants will understand the mechanics of designing a complex simulation with back-story, current presentation, moulage (i.e. makeup for clinical scenarios) and simulation of physical signs. We expect them to: (a) experience through 'role playing learners' a complex human simulation, prepared earlier; and (b) be shown how to adapt an existing scenario so that it can be used in a simulation using moulage and role play. Pre-developed scenarios will be available. Participants should be able to observe and learn the basics of both the teaching of the simulation of clinical signs and of the use of moulage. There will also be a period of practice using the new simulation developed by the workshop members

Timing of workshop

We propose (a) five minutes for the introduction and objective setting; (b) ten minutes for the observation of the scenario; (c) fifteen minutes to adapt the existing scenario; (d) twenty minutes for moulage training; (e) thirty minutes to understand the basics of teaching how to simulate the signs; and (f) ten minutes to wrap up and distribute the evaluation forms.

Intended audience and participant numbers

All teachers of clinical scenarios, but particularly those who work with human based simulation. The maximum number of participants is twenty.

Presenters' prior experience

Professor Jim Parle has taught clinical skills using simulation for many years to medical students and to physician assistant students. Julia Hyland is a Medical Effects Make-up Artist with over ten years experience of working with medical students, associated clinical educators and healthcare professionals. She specialises in moulage effects. A simulated patient from University of Birmingham (UK) Interactive Skills Unit will also be present.

Sala Giochi
W11
What makes for quality feedback: exploring learners' perspectives
Urquhart, L., Ajjawi, R., Ker, J.

Feedback is central to an effective educational experience yet students commonly report dissatisfaction with the feedback they receive. The aims of this workshop are to explore the causes of the tutor-learner feedback gap and to generate strategies for closing this gap within the contexts of bedside teaching, simulation and online learning.

The "feedback gap" has been discussed in both the education and health professional education literature. It can be

clearly illustrated by Carless (2006) who conducted research across eight teacher training institutions across Hong Kong. He found that: 1) tutors believe they are providing more detailed feedback than students do; and 2) tutors perceive their feedback to be more useful than students. This gap has also been demonstrated in general practice (Baker and Sprackling 1994), surgery (Hutul et al 2006; Sender Liberman et al 2005) and medical undergraduate education (Gil et al 1984).

Participants will engage in a debate discussing some of the potential causes for this gap. One of the arguments put forward for this gap is that health professional education takes a narrow perspective of feedback as a transmitted phenomenon where by virtue of giving feedback there is an assumption that it will be understood and acted on (Sadler, 2010). Another potential cause is the narrow focus of feedback as improving performance on a task ignoring its value in inducting learners into the practices of the profession and for promoting self-regulation (Nicol 2010). Furthermore, research has neglected learners' perspectives on feedback which is the topic of current exciting research (e.g. Watling et al. 2012; Urquhart et al. 2012) and their findings will be discussed during the workshop. Participants will then engage in identifying and/or developing strategies for addressing this gap within the contexts of bedside teaching, simulation and online learning.

Reference List

Baker, M., & Sprackling, P. D. (1994). The educational component of senior house officer posts: differences in the perceptions of consultants and junior doctors. Postgraduate Medical Journal, 70(821), 198-202.

Carless, D. (2006). Differing perceptions in the feedback process. Studies in Higher Education, 31(2), 219-233.

Gil, D.H., Heins, M.D. & Jones, P.B. (1984) Perceptions of medical school faculty members and students on clinical clerkship feedback, Journal of Medical Education, 59, pp. 856–863

Hutul, O.A., Carpenter, R.O., Tarpley, J.L., & Lomis, K.D. (2006). Missed Opportunities: A Descriptive Assessment of Teaching and Attitudes Regarding Communication Skills in a Surgical Residency. Current Surgery, 63(6), 401-409.

Nicol, D. 2010. From monologue to dialogue: improving written feedback processes in mass higher education. Assessment & Evaluation in Higher Education, 35, 501 - 517.

Sadler, D.R. 2010. Beyond feedback: Developing student capability in complex appraisal. Assessment and Evaluation in Higher Education, 35, 535-550.

Sender Liberman, A., Liberman, M., Steinert, Y., McLeod, P., & Meterissian, S. (2005). Surgery residents and attending surgeons have different perceptions of feedback. Med Teach, 27(5), 470–472.

Urquhart, L., Rees, C., Ker, J. (2012 *under review*) "It Was Like Gold Dust": A Multi-School Qualitative Study of Medical Students' Perceptions and Experiences of Feedback

Watling, C., Driessen, E., van der Vleuten, C.P.M., & Lingard, L. (2012). Learning from clinical work: the roles of learning cues and credibility judgements. Medical Education, 46(2), 192-200.

Workshop Objectives

Workshop objectives are to: 1) discuss reasons for the tutor-learner feedback gap; 2) help reconceptualise feedback from something that is transmitted to a dialogic constructivist phenomenon; and 3) reflect on feedback practices in three different settings: bedside teaching, simulation and online learning in light of cutting edge research being conducted by the workshop leaders in these contexts.

Intended Audience

Participants involved in giving and receiving feedback in any of the above contexts are welcomed with any level of experience.

Summary of the instructor's qualifications or prior experience

Lynn Urquhart is a clinician, clinical teacher and PhD candidate at the Medical Education Institute, University of Dundee. Her cutting edge doctoral research work is exploring the tutor-learner feedback gap from the perspective of the learner. In particular she is employing a video reflexivity methodology to explore students' understandings and experiences of feedback across different settings at medical school.

Rola Ajjawi is a Senior Lecturer in Medical Education at the Medical Education Institute, University of Dundee. She is a physiotherapist by training and experienced academic educator and researcher. She is Deputy Director for the Postgraduate Programmes in Medical Education where she is leading a 3 year funded project (JISC, £125K) to improve feedback dialogue within these online distance learning programmes.

Jean Ker is Professor of Medical Education and Director of the Clinical Skills Centre and Deputy Director of the Medical Education Institute at the University of Dundee. She is a GP and has experience of feedback with doctors in difficulty from videotaped assessment exercises using simulation and also experience of feedback in the clinical workplace as clinical lead for the Scottish Clinical Skills Strategy she has developed workshops on feedback as part of the development of standards of practice for clinical skills faculty.

Maximum number of participants

20

W12
Teaching and learning patient-centredness within bedside teaching encounters
Monrouxe, LV., Elsey, C., Rees, CE.
Workshop Objectives
This workshop aims to develop:
- Participants' understanding of patient-centredness as a set of behaviours rather than as attitudes and values;
- Participants' awareness of a variety of patient-centred behaviours within the doctor-student-patient encounter and the impact these might have on participants;
- Participants' awareness of some of the nuances within the doctor-student-patient encounter that can unwittingly serve to disempower patients;
- Principles of patient-centredness and how these can be explicitly role-modelled within attendees own clinical teaching.

Intended Audience
This workshop will be of interest to a diverse group of teachers, learners and medical educationalists:
- Clinical teachers (either based in the workplace and/or the simulated clinical skills learning environment).
- Other medical educators with responsibilities for helping students learn aspects of patient-centredness (e.g. teachers of professionalism).
- Medical students who are learning patient-centredness in the workplace and simulated clinical skills environment.
- Medical education researchers interested in patient-centredness and how this is taught and learned within authentic bedside teaching encounters.

Abstract
The aim of this workshop is to explore an interactional conception of patient-centredness within doctor-patient-student triadic bedside teaching encounters (BTEs) during which medical students learn with, from and about patients.[1]
BTEs are vital for helping students develop patient-centred professionalism. Although much is known about doctor-patient encounters, little is known about what happens when medical students are present. This workshop focuses on how patient-centredness is taught and learned by medical students in authentic doctor-patient interactional settings (rather than as an abstract concept).
Thus while previous research focuses on patient-centredness as a set of values, with patient empowerment being a core concept,[2] our ongoing work examining audio and video recordings of BTEs focus on patent-centredness as a co-construction between interacting participants.[3,4] These studies, using a symbolic interactionist framework, examined interaction (including pronoun use and laughter), to understand how doctors, patients and students are constructed and co-constructed within BTEs: thus patients' roles ranged from passive props (used by doctors and medical students for teaching and learning and where the patient's personhood is left aside) to being actively involved in consultations (e.g. being listened to attentively whilst narrating their illness journey or as directors of physical examinations).[3,4] These different social roles result in patient empowerment/disempowerment within the interaction in which their health is under discussion.
So when conducted well, patients can benefit from BTEs through being empowered as active participants in the teaching process and by learning more about their illness. However, patients are often disempowered. Over the past five years, researchers at Cardiff and Dundee have been undertaking pioneering audio and video-observational work examining the student-patient-doctor triadic relationship across GP and hospital settings in England, Wales and Australia. We draw on this, using video clips from authentic BTEs, to examine what patient-centredness 'looks' like in interactions and how best students can learn this.

Summary of instructor's qualification and prior experience
Lynn and Charlotte are experienced medical educators and medical education researchers. Over the last 10 years, they have facilitated numerous workshops at national and international conferences, many of which have been invited workshops. They have nearly ten years' experience of working together as research collaborators, and also co-facilitating educational events such as seminars, and workshops, and their feedback from workshop participants has been overwhelmingly positive over the years. Chris is a social scientist with a PhD in sociology. His work predominantly involves using audio-visual data across a range of work settings (e.g. healthcare, education and military). He is presently working as the researcher on the bedside teaching project with Drs Monrouxe and Grant at Cardiff and has previously run workshops in this area.

Maximum number of participants
30.

Reference List
1. Janicik RW, Fletcher KE. Teaching at the bedside: a new model. Medical Teacher 2003;25:127-130.
2. Mead N, & Bower P. Patient-centredness: a conceptual framework and review of the empirical literature Social Science & Medicine 2000;51:1087-1110.
3. Monrouxe LV, Rees CE, Bradley P. The construction of patients' involvement in hospital bedside teaching encounters. Qualitative Health Research 2009;19:918-930.
4. Rees CE, Monrouxe LV. "Is it alright if I-um-we unbutton your pyjama top now?" Pronominal use in bedside teaching encounters. Communication & Medicine 2008;5:171-182.

Breakout 2
W13
An interprofessional learning (IPL) experience that works! How to deliver effective IPL for the medical and nursing professions
Kiegaldie, D., Maddock, B.
Over the past five years, Monash University has provided an IPL programme to over 2,500 final year medical and nursing students. The IPL Delirium Workshop, incorporating small group learning and simulation, has shown that large-scale IPL is achievable and the workshop is now firmly embedded into medical and nursing curricula. This workshop will provide delegates with the opportunity to learn about and experience the features of this well-established programme. Through both theoretical and 'hands on' activities delegates will participate in elements of the IPL Delirium Workshop to assist them in gaining ideas about how to deliver a successful teaching innovation, or in determining the feasibility of instituting an IPL programme, such as Delirium Workshop, into their own organisations.
Objectives
The workshop will enable delegates to:
- Discuss the characteristics of effective IPL
- Experience a range of IPL teaching and learning activities focused on delirium
- Describe strategies for IPL development and delivery in their own context;
- Develop skills in delivering an effective IPL experience
Intended audience (experience / level and pre-requisites)
Health professional educators, course planners, administrators. Anyone interested in developing engaging IPL experiences in medical and nursing contexts.
Summary of instructor's qualifications and prior experience in presentations
Debra has conducted research in IPL and has worked in the field of IPL for many years. She has had responsibilities for teacher training in the health professions since 2003 and is currently Head of Medical Education at a large health service in Australia. She has led many workshops on this and other related topics.
Bronwyn has coordinated the IPL Delirium Workshop since its inception at Monash University. She has been responsible for ensuring that this large-scale program has become sustainable despite its growth from 650 students in 2010 to over 1,000 students in 2013. She has delivered similar workshops at previous conferences and is keen to share her experiences.
Maximum number of participants
20

Breakout 1
W14
How can we bridge the 'Gap' in transferring clinical skills between classroom and clinical settings in early year's clinical experience?
Stirling, K., Lefroy, J., Ker, JS., Ambrose, L.
Intended Audience
This workshop is intended for those with an interest in the development of clinical skills for students in the early years of healthcare courses. No previous experience is required.
Maximum number of participants:
20
Learning Objectives
By the end of the workshop participants will be able to:
1. Recognise the concept of a 'gap' between classroom and clinical setting
2. Identify specific curricular needs for skills development in early years students
3. Develop strategies for improving the transference of learning of skills from a simulated to a clinical setting.
4. Discuss the use of approaches to communication and patient safety tools in promoting good practice and developing individual student's clinical skills in the workplace.
In healthcare education there is an expectation from students, patients and healthcare workers that learners will be prepared for practice before meeting patients for the first time. With the reduction in the time that medical students spend in clinical settings[1] there is a need to ensure that students maximise their learning during clinical attachments. Simulation is a recognised technique to allow the safe yet realistic rehearsal of skills prior to deploying these skills clinical settings [2.] This workshop will present participants with two approaches to facilitate the transfer of skills from simulation to clinical setting in the early years of courses in order to minimize the gap experienced by learners.
This workshop will involve a combination of plenary and small group discussion. Participants will be asked to discuss challenges they have personally faced and also what strategies they have seen or used to facilitate the development of students' clinical skills in clinical settings in the early years. Following this the materials used in the two schools leading the workshop will be introduced to the group, including patient safety tools and approaches to communication. Participants will be invited to identify and evaluate how they might use the materials within their own courses.

Initial group activity	Exploration of the 'gap' concept
Plenary	Discussion of approaches used in the two schools – communication and patient safety tools
Group activity	Groups select trigger materials to discuss
Final plenary	Draw on group experiences to reach conclusions

Reference List

1. Calman, S Mcregor, R. & Spector, N. (2010) *How Can We Assure Procedural Competence in Pediatric Residents in an Era of Diminishing Opportunities? The Answer is Simulation-Based Training*. The Journal of Pediatrics. 156(6). 865-866.866.e1.

2. Ziv, A. Ben-David, S. & Ziv, M. (2005) *Simulation based medical education: an opportunity to learn from errors*. Medical Teacher (27) 3 193-199.

3. Hogg, G. Lorente, M. Keith, G. Ramsay, J. Ambrose, L. Owen, L. and Ker, J. (2008)*The evaluation of a ward simulation exercise to support hospital at night practitioners develop safe practice.* International Journal of Clinical Skills. 2(2). 112-117.

Session 8 - Keynote Plenary

Salone

KA03

A pedagogy for care complexity, networked practice and person-centredness

Professor Rick Iedema

This talk offers some reflections on the pedagogies appropriate for enabling junior clinicians to take on the complex challenges that they confront taking on contemporary health care service work. There is the dramatic rise in chronic disease and multi-morbidity presentations and this renders clinical processes increasingly complex. There are also patient-consumers who want to negotiate and adapt their care process, expecting care to be responsive and adaptive (Mol 2008). These developments suggest that the point of gravity of clinical expertise is no longer professional authority and scientific knowledge alone, but also (and increasingly) adaptive practice, distributed intelligence, and affective communication. The presentation exemplifies these latter three conducts through showing visual (video-ed) examples. These three conducts are argued to be at the centre of trainees' effective participation in care whose diagnoses, decisions and trajectories frequently remain uncertain and changeable. The presentation next suggests that, to the extent that trainees' learning remains *prefigured* with regard to its dynamics, objectives and outcomes, it will remain explanation-oriented, to use a term drawn from Jacques Rancière's educational philosophy. In his 1987 book *The ignorant schoolmaster (Le Maıtre ignorant),* Rancière contrasts explanation-oriented learning and emancipation-oriented learning (Rancière 1987). The presentation explains that emancipation-oriented learning confronts people (trainees) with situations whose learning pathways and outcomes are not or minimally prefigured, requiring them to invent their own 'ways for going on'. As they do so, it is argued; people (trainees) come to appreciate the critical significance of adaptive practice, distributed intelligence, and affective communication. The presentation frames emancipation-based learning with reference to a number of studies that rely on video-feedback based deliberation (Iedema et al 2013).

Reference List

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Mol, A. (2008) *The logic of care*. London: Routledge

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Session 9 - Keynote Plenary

Salone
KA04
Rethinking 'practice' in practice-based learning: A sociomaterial approach
Professor Tara Fenwick

This presentation focuses on 'practice-based learning', what some call workplace or informal learning. In examining the relations of simulated and 'real world' environments of practice and the bridges between them, a key dynamic to consider are the material as well as the social interactions in which different practices and learning emerge in these environments. Professional practice is intimately enmeshed with instruments, technologies, texts and forms, bodies and blood – all of which embed a history of politics and ethics. The material is often disregarded, dismissed, or denigrated to being understood as mere tools of human intention and action. However recent research in professional learning is now focusing on the materiality of practice – and not just the materials, but the entanglement of the material with the social, including language, cultural discourses, power relations, hierarchies and so forth.

I will begin with a brief critical overview of perspectives in practice-based learning that have been prominent in professional skills learning in the past few decades. These include acquisition-and-transfer, reflective practice, situated or sociocultural learning/participation, and communities of practice. While each of these has contributed enormously to understanding learning processes in practice, they each omit important dynamics that limit their utility in the complex worlds of medical practice.

The talk will then turn to recent theories of practice-based learning that work from a fundamental re-thinking of what actually constitutes practice. Here, knowing and doing are understood to be inter-related and, as Gherardi (2009) explains, the social and material are enmeshed, human dynamics are not granted priority, and practice is situated between the established and the emergent. Increasingly, studies of practice-based learning in work draw attention to the importance of human and nonhuman, discursive and material inter-relations in knowing and action (e.g. Hager et al. 2012). These have also introduced the notion of 'knowing-in-practice' as enactments performed through assemblages or networks that are more-than-human (Fenwick et al 2011; Gherardi 2009). This focus moves beyond the 'community of practice' approach (Wenger 1998) that, while useful for understanding professional learning, has been critiqued for its conservatism, generalised assumptions of 'community' and absence of analysis of power (Hughes et al 2007). Instead the focus turns to the 'practices of community' (Gherardi 2001), examining practitioners' changing micro-practices and meanings as constitutively enmeshed with technologies, knowledge cultures, materiality, and collective activity.

To illustrate how these sociomaterial theories of practice-based learning work, I will select particular analytic resources drawn from perspectives such as actor-network theory. I will share concrete examples showing how these have been used to examine professional learning in the workplace (Fenwick and Edwards 2010). These concepts help us to trace how myriad networks and dynamics of translation are at work in students' learning encounters with the objects and texts of practices. They highlight the material mediators and intermediaries holding together particular practices, and the politics through which they work. These concepts also illuminate the ways that standards of practice are actually performed (along with the inevitable work-arounds), and they raise questions about how humans become assembled with technologies and with what effects. In this approach we begin to understand workplace learning as a series of continuing learning struggles and as enactments – performed not by individual human actors but by sociomaterial collectives. The talk will conclude with pedagogical implications for teaching that can support productive practice-based learning.

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Session 10 - Parallel Oral Session & Posters

Salone
FO27
Tactical Decision Games: a novel training tool in anaesthesia
Rona Patey, R., Friar, S., Fioratou, E., Flin, R.
Outline
In high-risk work domains such as anaesthesia, the ability to make critical decisions during an ongoing task is essential to maintain safety and efficiency. Critical incidents are thankfully uncommon; therefore novices have limited

opportunities for supervised experience. Ideally they should be given opportunities to practice these unfamiliar situations in a safe learning environment. This paper reports on a pilot evaluation of a novel low fidelity training method to improve critical decision-making.

Background

High fidelity simulation is one training method with the potential to address this lack of experience but access is limited by cost and training time. Consequently, lower fidelity methods may be attractive. One such low fidelity method, originally developed by the US Marines, is the Tactical Decision Game (TDG), where participants consider domain specific crisis situations where a dilemma on what to do exists[1]. In the facilitated small group sessions, participants run mental simulations, and are encouraged to share plans, discuss options for proceeding and review the further problems that may be encountered[2]. Over a series of TDGs it is hoped that participants will develop their non-technical skills.

Results

Following full ethical approval a pilot programme of six TDGs were video taped with three anaesthetists in their first year of training. Each trainee completed a learning analysis after each TDG and an evaluation questionnaire at the end of the programme. Analysis of the data indicates that trainees found the TDGs realistic and the programme acceptable and useful. They reported learning about the hospital procedures, equipment and its locations. Videotape and learning review analysis was undertaken using the ANTS system as a framework[3]. This indicated that participants improved their use of anticipatory skills, task management and team working skills over the programme and learned.

Conclusion

TDGs offer a promising option for training in critical decision making in anaesthesia.

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FO28

Competence or confidence? Assessing procedural competency of Year 3 Medical students prior to rural placements

Robinson, N.

Introduction

Prior to undertaking rural placement's University of Queensland MBBS year three students participate in a rigorous orientation program preparing them for rural practice. Half of the program is dedicated to procedural skills training. Previous evaluation highlighted the repetitive nature of certain procedural skill sessions e.g. cannulation and venepuncture, citing them as 'boring' or of 'no value'. Many students felt confident in performing these skills to an accepted work readiness level. A smaller group of students did not report the same confidence and wanted the opportunity to further develop these skills. To address student feedback and meet an obligation to rural preceptors that students were competent in these skills a pilot project was developed to assess student competence.

Methodology

Prior to commencing "O" week students are asked to undertake a self-directed learning program by accessing nominated print and multimedia resource. Upon commencement of the program students are given a copy of the assessment marking guide and required to attend a Competency Based Assessment (CBA) session on day three when students' progress to either the CBA or a self-directed learning session.

Discussion

All students in the pilot have been assessed as competent prior to commencement of their rural placement.

Reference List

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O29

The obese patient: enabling students to use constructive and evidence approaches in clinical encounters and to practise evidence based practice

Wylie, A., Leedham-Green, K., Tadeka, Y.

Outline of work

NICE guidance for obesity and related guidance have had limited impact. We devised a compulsory activity for final year medical students during GP rotations to help develop skills related to supporting obese patients using evidence based approaches. Students submitted 500 word case studies.

Background

Research suggested a paucity of primary care practitioners practicing evidence based approaches to obesity and as

such it limited the teaching we could set for our students. By putting the onus on the students to report case studies both clinical teachers and students alike were enabled to explore the application of guidance and pathways.

Research

Cases studies (n430) were uploaded to Nvivo v9 for qualitative thematic analysis, as part of a broader ethically approved research programme.

Results

A dietary history pro-forma was valued but for most students once they started the dialogue they became more comfortable and confident, although only a minority were able to use the consultation as suggested by NICE.

Discussion

We have highlight students weaknesses and prior to their placements a symposium will be offered to prepare them more fully. As this activity becomes established we anticipate more constructive engagement and GP support, with clarity about NHS evidence as a resource and for referrals.

P01

Use of Workplace Simulation to Enable Development of a Safe Stroke Thrombolysis Service

Mardon, J.

Introduction

In 2010 Ayrshire and Arran introduced a locally delivered stroke thrombolysis service. An in situ simulation was designed and run to test the pilot protocol aiming to uncover any unforeseen problems and subsequently allowing safe introduction of the new service.

Method

A simulation was designed and run to test the newly developed stroke thrombolysis process. Personnel involved included a live simulated patient and relative; the multispecialty and multidisciplinary team (including paramedics, ED staff, stroke physicians and nurses, radiologists and radiographers and laboratory staff) and the Stroke unit and the managed clinical network for stroke. Immediately after the scenario a debrief session was run where learning points were discussed. There was particular emphasis on patient safety and quality of the patients experience.

Results

The simulation ran extremely well and confirmed a safe and workable process; in particular the proposed fast track response from the laboratories and the radiology department exceeded expectations. The debrief did bring out some areas for learning which were subsequently implemented. All the participants felt more confident in their ability to provide the stroke thrombolysis service and when the service was introduced 2 months later all agreed that the simulation had been worthwhile in ensuring a safe and effective process.

P02

Learning from a Near Miss: A Workplace Based Simulation Training Programme for Emergency Department Nurses designed to ensure excellent patient care

Gordon, J., Mardon, J., Train, L., E McIlwraith, E.

Introduction

When near misses occur in clinical practice it is important to maximize the lessons they teach us to enable consistent high quality patient care. The combination of analysis of the underlying causes of a near miss incident combined with teaching relevant learning objectives using in situ simulation techniques is potentially a very powerful way of ensuring a safe and effective patient experience.

Methods

After a near miss where a child with acute asthma who appeared to be clinically improving was sent home only to reattend more unwell the following day requiring an inpatient stay an analysis of the underlying causes of this near miss was undertaken. Key learning objectives were identified and a workplace based simulation training programme has been developed. This teaching programme will be delivered by a multidisciplinary faculty in September of this year and we aim to reach most of our trained staff during these sessions.

Results

A retrospective audit looking at documentation and appropriateness of medication used in acute asthmatics has been performed the results echo the findings of the analysis of the causes of the near miss case. After the teaching sessions in September we will re-audit management and documentation of the paediatric asthmatic patient, hopefully showing that workplace simulation training can help to enable high quality patient care.

Conclusion

The combination of analysis of a clinical near miss guiding development of a workplace based simulation teaching programme can help deliver high quality safe patient care.

P03

Using Computer Simulation as a Qualitative Research Tool to Improve Teaching in Infection Control

Lee, KE.

Hand hygiene (HH) and personal protective equipment (PPE)use are currently taught by lecture and clinical skills session, with HH technique assessed by OSCE. Compliance with HH and PPE use in practice is known to be sub-

optimal (Pittet 2004). HH research using survey, interview, and observational methods can result in biased outcomes (Pittet 2004) This pilot study aimed to determine the feasible to use computer simulation to assess the complex decision making around HH and PPE, and improve compliance.

From the evidence-base (Whitby et al. 2007) scenarios were developed around a virtual ward bay and 3 simulated patients. Eleven final year student volunteers were recorded verbalising their HH and PPE decision making whilst working through assigned tasks. Transcriptions were analysed into themes by content analysis.

Practice deviated significantly from what had been taught. Rather than lack of knowledge, this was found to be due to a range of misconceptions, personal preferences, observed ward practices and experiences that had been acquired on clinical placement. These influences need to be built into teaching of these skills and computer scenarios with feedback are proposed as an effective method.

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P04

Use of Workplace Simulation to Assist Development of a Safe Major Haemorrhage Protocol

Mardon, J., Whymark, C., Gordon, W., Hannah, J.

Introduction

A new major haemorrhage protocol was developed by the major haemorrhage team in Ayrshire and Arran. An in situ simulation was designed and run to test this protocol aiming to uncover any unforeseen problems and subsequently allowing its safe introduction.

Method

A simulation was designed and run to test this protocol. The simulator used was a high fidelity Simman in our ED. The team involved were ED team; surgical team; intensive care team; portering staff; blood transfusion biomedical scientist; switchboard operators and emergency response team. Immediately after the scenario a debrief session was run informed by video clips.

Results

In general the simulation ran extremely well and confirmed a safe and workable protocol; in particular the response times were excellent with most team members attending the ED within 1-2 minutes and the rapid arrival of senior staff enabled prompt arrangements for definitive treatment.

The debrief did bring out some areas for learning including:

1. The importance of allocation of the communicator role,
2. The importance of the portering supervisor staying for the whole major haemorrhage process
3. The importance of switch board stating the hospital involved as well as the site

These learning points were immediately fed back to the team involved and taken back to the major haemorrhage development group with subsequent alteration of the major haemorrhage protocol.

P05

A study of repeated simulation experience for medical students

Wilson, J., Hannah, J., Mardon, J., Whymark, C.

Background

Research into repeated clinical simulation is sparse but suggests that more hours of practice are associated with improved learning outcomes[1]. We hypothesised that repeated simulation experience would improve medical students' performance and confidence.

Methods

Students attended two standardised simulation sessions, with each group working through identical scenarios. Students entered the simulator in small groups and were debriefed by trained faculty. Scenarios were recorded for later assessment.

Outcomes were measured by assessing students' performances against checklists of expected actions for each scenario and eliciting students' confidence levels using a modified METI (Medical Education Technologies, Inc.) simulation effectiveness tool[2] questionnaire after each session.

Results

71 students attended the first session and 60 students attended the second session. There was no significant difference between the checklist scores for the two sessions. Students' self-assessment scores across a variety of domains were high after both sessions.

Evaluation

There is no accepted best method for studying the efficacy of clinical simulation. It is encouraging that students' self-assessment scores were consistently good. Checklist marking proved to be time consuming and prone to technical difficulties. In future we plan to simplify the process, focusing on students' self-assessment using before and after Likert scales for each session.

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Sala Veneziana
FO29
A novel virtual family curriculum to teach specialty-specific clinical skills to rising third-year medical students
George, P., MacNamara, M., Scott Taylor, J.
Background
Transitioning from a preclinical to a clinical curriculum can be challenging for medical students.
Aim
As a central component of a new three-week transition course, we designed, implemented, and evaluated
a novel virtual family curriculum to introduce rising third-year medical students to knowledge, skills, and culture of six core medical and surgical specialties.
Methods
The authors designed a six-case, 18-hour virtual family curriculum. This three-generation virtual family includes three patients who travel through the US healthcare system: Barbara Garcia, the matriarch, establishes care with a family physician and then encounters physicians in internal medicine, surgery, and psychiatry; her daughter Samantha's pregnancy and delivery are managed by obstetricians; and Barbara's grandson, Joey, sees pediatricians. Each paper case contains a video portion (with Barbara and Samantha portrayed by standardized patients), discussion questions, and skills practice. In small groups, students learn clinical skills such as writing orders, calculating intravenous fluid rates, and dosing insulin. We used both qualitative and quantitative data to evaluate the curriculum, including a summative OSCE to evaluate student performance at the end of the course.
Results
Ninety-eight students took the inaugural course in 2011-12 and all passed the OSCE. Overall, students rated the virtual family curriculum as a 5.17/6 (6 = highest). Summative comments about the curriculum and student self-evaluations of individual skills were very positive. As examples, students rated their ability to write a specialty-specific history as 3.01/4 (4 = highest); and one student noted, "I think I impressed [my team] in my first week [of clinical clerkships] with writing a good note on my first try."
Conclusions
We designed, administered, and evaluated an innovative virtual family curriculum that effectively introduced students to necessary knowledge and skills for clerkships. This curriculum is transferable to other institutions and reduces the challenge of transitioning to clerkships for medical students.
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FO30
"Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand."
– Confucius
A learner centred approach to curriculum design: Designing an experiential program
for long case examination re-sitters
Enright, H.
Experiential learning and learner–centred methodologies have long been a feature of the Australian education landscape. However, in post-graduate medical education these methodologies have not translated easily. Due to the unique historical nature of the medical apprenticeship model in the clinical education system, educational program delivery has traditionally been teacher – centric and relatively didactic in delivery. Whilst there has been a shift to more interactive methodologies, the uptake of learner centred curricula in formal training programs has been relatively slow.l
At our large paediatric teaching hospital we have designed a six workshop program to assist re-sitters with the FRACP long case clinical examination. This program has adopted a learner centred framework where learner needs analysis and collaborative curriculum design are prioritised. This paper discusses the stages of design, implementation and evaluation of the program. Using principles of reflection, modelling, simulation, peer review and role play, the stages of the long case are deconstructed and analysed along clinical, cognitive, organisational and communicative competence. It describes a collaborative approach where participants collaboratively devise the program; teachers take on the role of facilitators and participants as peer reviewers. This paper could assist other medical educators interested in adopting learner–centred curriculum design.

O30
Student perceptions of an innovative fitness to practice policy
Lo, K., Keating, J., Francis-Cracknell, A., Maloney, S., Morgan, PE.
Fitness to practice (FTP) is fundamental to health professional education and health service delivery, impacting on practitioner and client wellbeing. The physiotherapy department at Monash University has developed an innovative FTP policy that utilises student self-declaration and management strategy development, *before* entering the clinical environment. As literature exploring FTP policies only identify retrospective student support and management, this is the first example of a proactive strategy.
Results
Forty-seven final year physiotherapy students completed an anonymous survey regarding their perceptions of the policy. Eighteen (38%) respondents expressed concerns about their FTP. Of these students, 83% reported an issue that may impair their learning or ability to interact effectively with health service clients, almost half (47%) of these were due to stress, mental, psychological or emotional issues. The majority of respondents (79%) indicated they were 'comfortable' or 'very comfortable' in self-declaring FTP issues. Confidentiality, a positive relationship with staff and a supportive environment enhanced comfort. Eight students (17%) attended a FTP support meeting to develop management strategies. All of these students rated the meeting as 'helpful' or 'very helpful'.
Conclusion
Students had positive perceptions of the self-declaration of FTP demonstrating that students can be supported by this innovative FTP policy.

P06
Clinical Reasoning in Medicine: Developing students' meta-cognitive skills
Hammond, A., Henderson, J.
This poster outlines the introduction of formal Clinical Reasoning Skills sessions - initially a Student Selected Component (SSC) - as compulsory sessions in the core second year curriculum.
Observations of 4th and 5th Year students' performances in live examinations and student feedback indicated that, despite having excellent core communication skills, students struggled with the skills needed for effective analytical thinking when faced with complex diagnostic challenges.
A three week SSC was designed around current research introducing students to the concepts underpinning the process of clinical reasoning. This SSC is founded on experiential practice where students analyse their thought processes and hypothetico-deductive reasoning governing the choices and conclusions reached whilst interviewing patients.
All sessions are conducted in small interactive groups with experienced simulated patients and academic clinician tutors.
Student feedback was extremely positive; all students felt these sessions must become part of the core undergraduate curriculum.
The iterative processes required for developing higher order thinking skills in students are described.

P07
More ways than one to be smart
Sheahan, L.
The clinical competency of nursing students has raised questions about the adequacy of current methods of teaching clinical skills in the undergraduate nursing programme. The need for innovative teaching strategies to develop clinical skills has raised many professional debates. It is argued that despite the rhetoric of a student-centred approach; nurse education remains wedded to conventional teaching approaches, which fail to engage with the individual. A multiple intelligence teaching approach (MITA) has been used in nurse education but has not been reported for use in clinical skills instruction. This paper presents the findings of a doctoral research study which used MITA, a five-phase model developed by Weber (2000), as the method of teaching. This study also accounted for the influence of individual learning styles and the students' multiple intelligences development assessment scale.
This study employed a randomised control trial with first year nursing students in a third-level institute ($n= 90$). The participants were randomly allocated to a control group (conventional teaching) ($n= 44$) or a treatment group (MITA) ($n= 46$) for teaching of clinical skills. This study compared MITA with conventional teaching for a number of core clinical skills and MITA was carried out by the researcher. Students were subsequently assessed using objective structured clinical examinations (OSCE) at the end of the semester. The preliminary findings of this study indicate that students who were taught using MITA scored higher in their OSCEs ($p < 0.05$) and qualitative analysis additionally related very positively about the MITA approach. It is contended that MITA has great potential in nursing education and clinical skills development, particularly in terms of reinforcing learning beyond the educational domain and into the individual's professional development and clinical practice. It will also contribute to the conceptual understanding of multiple intelligences approaches to teaching and learning.
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P08
An ideal time and place for teaching & learning
Hannah, J., Canavan, M., Mardon, J., Whymark, C., Neill, H., Paton, C.
Introduction
Simulation training cannot replace but can complement traditional training methods in the clinical environment. (1)
(2) Particularly, if embedded within the curriculum and integrated with other educational methods. Collaboration from NHS Ayrshire & Arran, NHS Lanarkshire and Glasgow University, provided Simulation Training for all Year 5 Medical Undergraduates 3-4 months prior to appointment as FY1's.
Aim
Students to be appointed to NHS Ayrshire & Arran were trained locally, using organisational processes and documentation such as Intranet and local antibiotic policy, SBAR, medical and nursing charts/documents with the specific aim of enhancing patient safety.
Method
Scenarios were designed around the Acute Care Competencies within the framework for the Foundation Year Curriculum UK and agreed by both simulation sites and evaluations completed.
Results
NHS Ayrshire & Arran evaluations showed the following:
* the students valued both technical and non technical teaching component
* confidence levels had increased post course
* total student agreement that course content could be transferred to their work place
* 90% agreed that the training would influence patient care
Reference List
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P09
"Didacticism and its role in teaching and learning"
Grusauskas, H., Harris, N.
Monash University, has for many years, been running a series of very well received courses in General Practice. What is surprising in our e-learning age is that a didactic model is highly valued by participants.
The three-day course comprises a comprehensive didactic conference schedule which provides a solid update of current knowledge and clinical skills. General practitioners attend didactic sessions provided by the Department of General Practice at Monash. The lectures strike a balance between formal presentations and interactive question and answers. The content of the programme is derived from previous feedback from course participants. More immersive learning takes place for many of the general practitioners when they return to their practices and can directly apply theory to practice in a traditional model of medical education.
Feedback from course participants has rated highly both in terms of content and in relation to self-judgements in improvement in cognitive, problem solving and abilities to tackle problems.
So does didacticism have a place in our e-learning age? Previously teaching and learning styles have not been evaluated. This year the authors will question the participants on their preferred teaching and learning styles to ascertain whether these assumptions hold true.
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P10
Today..... Students, Tomorrow..... Experienced Clinicians
Horne, A., Andersen, P. Presented by Anderson, P.
Nursing education has been challenged to better prepare new graduates for entry to practice that are safe, and able to work collaboratively with interdisciplinary teams (Billings, 2007). Questions have been raised regarding the amount and quality of nurse initiated client assessment and associated skills taught within nursing programmes in the university system. This poster presents the findings from an investigation that explored Bachelor of Nursing students' confidence and perceived competence in undertaking nursing assessments within the clinical setting. A phenomenological approach underpinned the collection and analysis of the data obtained from fourteen third year nursing students. Analysis found four key factors impacting on student confidence and the development competence in undertaking client assessment. These were theoretical learning, placing the theoretical learning into a simulation setting, the opportunities to give student nurses whilst within both the clinical and academic setting and finally the

personally attribute to the student nurse. This research makes a significant contribution to understanding students' perspectives about stages of development, learning nursing assessments and workforce factors impacting on skill development and the preparation of the nursing workforce for the next decade.

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Sala Toscana

FO31

An innovative clinical skills course in a new medical school – a report from the Galilee, Israel

Reis. S., Gilbey, P., Luder, A., , Roazno-Gorelic, A., Dickman, N., Einy, A., Weingarten, MA.

Background

A new medical school offers an opportunity for innovation in medical education; in Oct 2011 Israel's fifth faculty of medicine became operational. The clinical skills curriculum has already undergone two iterations, resulting more from serendipity than planning. The course (presented to the fourth Prato conference attended by SR, the program director) was designed in close collaboration with the Associate Dean for Medical Education(MW), and the Vice Dean for the graduate MD track(AL).

Description

The course comprised weekly sessions, small group interaction, extensive simulation, self-learning, early clinical exposure and patient contact as well as integration of the humanities spans the first two clinical sciences years.

Results

At the conclusion of its first year the course and its components were highly rated by students and tutors. The history of the course during its first two years (ending May 2013) will be available for the conference together with the two year evaluation results, as well as the first year story of the second class.

Conclusions

The story of a new clinical skills course at the conclusion of its first two years will be told, complete with evaluation data. Deliberations and choices taken will be presented and discussed.

FO32

Linking Clinical Skills Laboratory to medical students clinical needs: a pilot study

Smyrnakis, E., Moirasgenti M., Toufas, K., Goutaki, M., Grosomanidis, V., Karakasis, C., Mekras, A., Mintsi, T., Nikitidou, O., Petridis, P., Boutou, A., Benos, A. Presented by Moirasgenti, M.

Background

One of the objectives of undergraduate medical curriculum is to provide students with knowledge, skills and attitudes required for entering every speciality training.[1] However, there is evidence of students' dissatisfaction with their training,[2] as they describe feeling useless, unable to contribute to patient care because they had insufficient knowledge or skills.[3]

Objective

The aim of the study is to describe a pilot program that allows medical students to seek teaching of clinical skills depending on their needs and level of study.

Methods

Students were informed about the program by medical school's official website and posters. An on-line booking system was created, where tutors' monthly availability was posted and students booked a seminar. Clinical skills, according to difficulty, were allocated to different years of study. Afterwards, students and staff were asked to complete an online evaluation questionnaire.

Results

240 students from all years of study participated in the 138 seminars that were scheduled in one semester. Both students and staff evaluated the pilot positively. Students were satisfied as they could be taught clinical skills according to their learning needs, in a safe environment.

Conclusions

The success of this pilot was based on the easy-to-use online booking system and the flexibility of the teaching hours.

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O31

**Using video filming and self-assessment to promote reflexivity in medical students identified
as experiencing difficulty in procedural skills**

Ambrose, L., Srivastava, C.

Outline

This study uses direct observation to explore how self-assessment of video-film can influence the development of procedural skills

Background

Unsatisfactory practice in procedural skills places patients at risk (1). Therefore identifying how to support students experiencing problems in this area is important. This study used direct observation of the self-assessment of skills performance with video film alongside an analysis the students' performance of the skills to identify if this process promoted reflection and reflexivity in this group (2).

Results

Between May to October 2012 twenty-four year 4 and 5 medical students were invited to participate in the study. They had either failed the main clinical assessment (OSCE) for that academic year or had specifically failed the procedural skills OSCE stations. The participants completed a skill in simulation and were invited to self-assess their performance and suggest approaches for improving their skills. Students were given opportunities to repeat the process up to three times. Two main groups of reactions emerged from within the session.

Conclusions

From the initial analysis, this process resulted in varied responses, which appeared to relate to different observed behaviours in the skill sessions. The authors' interpretation of these phenomena will be presented at the conference.

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P11

Developing an interactive clinical skills pathway day: to engage teenagers in a career as a health care professional

Godson, R., N., Roden, J.

This study aimed to work with young people aged 14-16 years to give them the opportunity to experience Higher education opportunities and discover strategies to improve the occupational image of nursing in secondary education. Coventry University hoped to show these young people an understanding to their particular needs. The first step was to introduce them to a career as a health care professional offering action packed days with Paramedic, Operating Department Practitioner, Nurses, Midwives, Occupational Therapists, Physiotherapists and Dieticians students. The day included practicing clinical skills such as cardio pulmonary resuscitation, theatre skills, bandaging and bleeding in a realistic mock ambulance, mock theatre, and clinical wards following a patient through from a casualty scene to discharge home. Staff advised individuals on the required educational requirements while students gave an insight into student life. The reception was fantastic! All of those involved came out motivated and buzzing with enthusiasm, knowing that one day they may have the opportunity to be that person.

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P12

Facebook in Medicine: A Clinical Skills Resource

Mullenger, R., Jain, L., Joukhadar, N., Bourget, G., Ur, E., Blake, K. Presented by Blake, K.

Social media is gaining popularity yet healthcare has yet to embrace the trend. (Squazzo 2010). Mobile devices allow remote students to feel connected to training hospitals and peers (Boulos et. al 2006). The VII Nerve page centralizes up-to-date resources in clinical learning. The page shares videos of clinical skills, medical apps, cases and research. An editorial board, with members in Canada, Ireland and Germany, post content and monitor materials posted by others to ensure quality. The editorial board tracks online use and analyzes it to determine the audience and most popular types of resources. Currently surveys are the least popular due to lack of anonymity.

The page has 173 subscribers and 51,172 users have been reached. Sixty-two percent of users are female, 89 percent fall between the age of 18 and 34 from nine countries worldwide and eight different first languages. Users are most engaged by videos clips.

Implications of social media are valuable to the future of medicine and this research is using quantitative data with questionnaires and focus groups to determine how social media can effectively be implemented to prepare students for lifelong learning while overcoming ethical issues, a current barrier to social media.

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P13
Developing educator skills - Lessons learned from cross-cultural working

Roberts, P., McKimm, J.

A NZ Postgraduate educator's responsibility to develop education/supervision/mentoring faculty for both New Zealand PGY-2 and UK Foundation Year-2 medical trainees and identify enhanced interprofessional educational opportunities needed an innovative approach to faculty development in a New Zealand DHB. With proven educator guidence, using extensive online, open-access London Deanery resources and Academy of Medical Educators' professional standards, a core faculty engaged with a "training-the-trainers" distinctly Kiwi process. Progress has been slow but steady, requiring painstaking attention to managing educationalist-vs-entrenched organisational culture challenges.

The need to provide e-Portfolio support, assessment tools such as mini-CEX and PDPs for UK trainees and still meet NZMC requirements has led to a blended learning culture with unexpected benefits including 'near peer" teaching initiated by UK trainees and spontaneous educational leadership from an unexpected quarter—trainees.

The programme aimed to change the learning culture, enhance the application of contemporary educational theory to everyday teaching practice, set benchmark professional teaching standards and provide incentives to be trainers— all on a shoestring budget. We present the lessons learned, training outcomes and give tips to those who might want to embed international frameworks in their local context to improve educator skills and the learning experience of students and trainees.

P14
Excellence in teaching and learning skills - what's working?
Final Year Student Nurse experience, perceived and actual benefits of simulated scenarios to practice

MacPhee, M., White, PD., Geddes, GA.

It is well documented that there are significant pre-morbid signs to cardiac arrest associated with poor survival rates to discharge from hospital (Andrews and Waterman 2005). Nurses, central to care delivery, may influence positively or negatively. However many student nurses lack knowledge and confidence in dealing with deteriorating patients (Last and Fulbrook 2003). Resuscitation Council (UK) Immediate Life Support (ILS) course is intended to teach skills necessary to effectively assess and initially manage acutely ill patients. Teaching methods include skills stations and simulated scenarios.

Since 2004, students have evaluated their experience of ILS training, conducted in the final year of their undergraduate (UG) programme. Significant emerging themes from evaluations strongly suggest students positively perceive ILS training as important for their future practice. Identified themes include a positive learning experience, core resuscitation skills acquisition, increases in confidence, the ability to apply theory of assessment and recognition of deteriorating patients to practice in a safe and controlled environment and enhanced problem solving skills. Similar themes have been identified by Gallagher and Traynor (2012).

Pre-registration participation in an ILS course provides students with increased knowledge, skills and confidence to recognise and initiate treatment for deteriorating patients and helps to prepare for transition from student to staff nurse.

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Sala Giochi
FO33
Working and learning together in an interprofessional student led clinic

Kent, F., Keating, J.

A student led clinic was established to facilitate the interprofessional education of undergraduate students in primary care. Student teams review the physical, functional and social health of older people recently discharged from an acute hospital setting under the supervision of a team of educators. Students from dietetics, medicine, nursing, occupational therapy, pharmacy, physiotherapy, podiatry and social work conduct patient interviews in mixed discipline teams, assessing for unmet health needs. The student teams identify and write referrals for appropriate

support services and send summaries of findings to the patient's usual general practitioner. Quantitative evaluation of student learning is undertaken using the Interprofessional Education Perception Scale (Luecht, Madsen, Taugher & Petterson, 1990) and qualitative evaluation is via focus group. Focus group transcripts are independently reviewed and coded by two researchers and agreement on emergent themes is established by discussion. The student learning outcomes that emerged during the initial 8 week pilot are the development of a comprehensive perspective of patient care, knowledge of discipline roles, teamwork skills and interprofessional communication skills. In addition to providing a valuable learning experience, the patient feedback demonstrated satisfied consumers who appreciated the time devoted to assessment of their health.

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FO34
Education and training required to implement and practice family presence during resuscitation
Porter, J.

Aim

The aim of this paper is to report the findings of a study on the education and training believed to be required to successfully implement and practice family presence during resuscitation (FPDR) in an emergency setting.

Background

The practice of allowing family to be present during resuscitation has been debated among clinicians working in emergency departments since early 1980's. There remains cause for further investigation with evidence that the practice and implementation of FPDR continues to remain inconsistent further the education and training currently available to emergency personnel varies considerably among organisations.1.

Method

A quantitative questionnaire constituting phase one of a mixed methods PhD study was used to ascertain the extent to which emergency personnel obtained training and education on the topic of FPDR.

The survey was divided into 5 key interest areas including: demographic data, qualifications, resuscitation team, family presence – personnel attitudes, and training and education.

Results

In preliminary findings, emergency personnel reported that they had received no formal training with regard to FPDR (91%). They went on to suggest a variety of education and training strategies that could be implemented to ensure that staff are adequately prepared to work in the resuscitation environment inclusive of family members. Major emerging themes included; 1. Communication techniques, 2. Scenario based simulation training, and 3. Role of the family support person, importance of supporting family decision making during the resuscitation. There remains a division between attitudes towards FPDR paediatric resuscitations compared with adult resuscitation with the majority of staff reporting that they would endorse FPDR in paediatric cases but not with adults. There was strong evidence to suggest that there is currently a greater degree of emphasis placed on paediatric resuscitation training around family presence but continues to remain absent in adult training courses.

Conclusion

Further work is needed to evaluate the extent to which education and training plays in FPDR implementation and practice.

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Funding / Acknowledgments

Key Words

Family presence, Resuscitation, Emergency

O32
Patient centred clinical skills – students and clinicians learning together
Boardman, K., Leedham-Green, K., Wylie, A., Takeda, Y.
Presented by Leedham-Green, K.

Outline of Work

As they start to learn clinical medicine, students have been known to exhibit an increasing disease-focus and less holistic patient approach in their learning (1-3). To anticipate and reduce this, a programme with defined patient-centred clinical communication skills was introduced, enabling both students and clinicians to be clearer and demonstrable in their patient centred approaches.

Background

Phase 3 (first year clinical) students (N=430) in their "Abdomen" rotation were given specific objectives to learn about

and demonstrate patient-centred clinical communication skills, principles of individualised approaches and shared decision-making in patient management, transferring their learning of clinical communication skills from classroom to the clinical environment. The majority of students attended dedicated sessions in General Practice, with the remainder having a parallel experience in hospital Outpatient clinics, wards and "Grand Round" presentations. Clinicians in both Primary and Secondary Care had been briefed and provided with supporting written guidance about the module.

Research

This was part of an ethically approved research project, using a mixed-methods approach with quantitative and qualitative on-line feedback from students, Hospital-based and GP-based student focus groups and tutor focus groups. Qualitative data were analysed using NVivo v9.

Results

Students and tutors identified acceptable working definitions of patient centeredness and were confident about this being demonstrable in clinical encounters. A minority reminded vague and limited in their understanding and appreciation of the importance of such approaches for differential diagnosis and clinical care.

Discussion

The programme has shown that these newer skills can be taught by clinicians and demonstrated by students, but require an openness for all involved to be aware of developments in communication skills and an emerging evidence base for patient-centred approaches.

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P15

Interprofessional Peer Facilitator Scheme

Richardson, S., Pegram, A., Fordham Clarke, C., Berry, J., Marron, E.

Students from King's College London are involved in developing an innovative collaborative peer facilitation scheme. Third year Medical and Nursing students will be recruited to facilitate sessions for year two Medical and Nursing students. The scheme will be run by the students for the students with staff overseeing the scheme for support where needed. The scheme will be led by a Steering group of these students who will recruit further peer facilitators, run the workshops and evaluate the teaching and learning experiences. All of the facilitators will have to attend training which will focus on teaching styles, classroom management and teaching preparation.

The first facilitation sessions will have diabetes mellitus as their theme and will include four workshops: - blood glucose monitoring, drug chart reading, information giving and subcutaneous injections. The poster will be completed by the peer facilitators to get their unique view of the scheme. Areas of focus will be: 1) How the steering group worked to shape the peer facilitation programme. 2) Analysis of the evaluations looking at the effect of this collaborative working and learning environment. 3) How the facilitators have adapted their teaching to meet their and the peer tutees learning objectives.

P16

Dot the 'i' and cross the 't'

Everett, F., Wright, W.

Aim

This poster illustrates a review and subsequent feedback by teaching staff, of completed MEWS charts following the simulated assessment, measurement and recording of vital signs (T, P, R) by a year one cohort of undergraduate nursing students.

Background

Following completion in clinical skills laboratories it became apparent that consistent errors were evident in relation to the completion of MEWS charts.

Intervention

Following simulated assessment MEWS charts were reviewed for accuracy of completion and individual formative feedback was then provided.

Sample

The sample comprised 208 first year student nurses.

Method

Completed MEWS charts were reviewed for accuracy of completion by a member of the clinical skills team.

Findings

Complete and accurate documentation was evident in only 46% of charts reviewed. The omission of any patient identity information was evident in 4% of charts. The time and date was not completed in 25% of charts. Other

anomalies consisted of inaccurate plotting of results (46%), not stating the value within the respiration range (19%), utilising an incorrect process when making an amendment (2%) and 5% would not permit photocopying or scanning.
Conclusion
This review is an effective means of highlighting the importance of the accurate assessment, measurement and recording of vital signs as an essential nursing skill, NMC requirement and integral aspect of safe patient care. It also highlights the value to practice within a simulated environment and emphasises the usefulness of formative assessment and feedback. Through formative assessment and feedback students are encouraged to embrace and develop the principles of good record keeping.

P17
Development and validation of the instrument, Clinical Learning Environment, Supervision and Nurse Teacher, (CLES+T) in the context of primary health care in Sweden
Bos Hassan Alinaghizadeh, E., Mikko Saarikoski, M., Kaila, P.
The purpose of this study was to validate the Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T) instrument in primary healthcare (PHC) settings using confirmatory factor analysis
and to identify the factors most relevant for student learning in these settings.
Several instruments have been developed and tested to be used for evaluating the quality of the clinical part of nurse education in hospitals,but none has been validated for assessing PHC as a learning environment. Specifically, the CLES+T instrument has been previously shown to be a reliable tool in validating learning environment in hospitals (Saarikoski *et al*. 2008 and Johansson *et al.* 2010), but has not been tested in PHC settings. Nursing students (*n*=356) from Karolinska Institute in Stockholm were invited to complete the CLES+T instrument with 34 items. The analysis show ssupervisory relationship was the most important out of the five factors tested and was strongly correlated with pedagogical atmosphere and the premises of nursing. We showed that the CLES+T instrument is a reliable tool to use for evaluating PHC as a clinical learning environment.
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P18
Can I have some more please?
Everett, F., Wright, W.
Aim
This poster illustrates an evaluation of the provision and uptake of additional clinical skills support on undergraduate nursing and midwifery programmes.
Background
Following completion of clinical skills module evaluations it became apparent that nursing and midwifery students would welcome additional time and support to practise clinical skills taught. Subsequent provision of this additional resource was evaluated, over a six month period, in relation to preferred format and uptake.
Intervention
Access to appropriate equipment, lab space and additional lecturer/nurse technician support for practise was initiated. Students requesting additional time and/or support to practise were asked to complete a short questionnaire.
Sample
All pre-registration nursing, midwifery and MSc students from one university campus site during a six month time frame (n= 450).
Method
A questionnaire was utilised to identify: student uptake, type of equipment requested, if additional lecturer/nurse technician support was requested, if students preferred to practise alone or as part of a group and group composition.
Findings
Surprisingly, student uptake was only 19% (n=89), which was evenly spread throughout each year group. All year groups utilised additional support for exam and pre-placement preparation. The MSc students cited confidence building as an additional reason for uptake. No requests were made for additional lecturer/nurse technician support. The type of equipment requested reflected exam and placement preparation in essential clinical skills (medicine trolley and documentation, tympanic thermometers, aneroid sphygmomanometers and stethoscopes). All requests indicated preference for practise with peers from the same cohort.
Conclusion
This evaluation has highlighted the need for further investigation in order to ascertain the reasons for low uptake of additional support despite consistent requests identified from skills module evaluations and will also inform future resource provision.

P19
Systematic patient assessment: Can undergraduate nursing students relate simulated practice to clinical practice?
Watt, S.
Background and Study Aim
It is essential that nurses have the skills to comprehensively and effectively assess patients so that they can identify priorities in patients' care and take action (Nursing and Midwifery Council, 2010).
This study aimed to:
1. Evaluate student nurses' experience of participating in simulation sessions on assessing acutely ill patients
2. Explore how they related their simulated practice to clinical practice.
Method
An explanatory sequential mixed method was used to explore the study aims (phase 1 quantitative data collection using self-administered questionnaires and phase 2 qualitative using focus groups).
Student nurses undertaking the Acute Adult Nursing module (n= 210) were introduced to a systematic framework for patient assessment at a theory session. They then participated in two simulated practice sessions whereby increasingly complex patient scenarios were used to help them develop their assessment skills. Phase 1 data collection occurred immediately at the end of the module with the second phase approximately six weeks after the students returned to clinical practice.
Results
This poster will highlight that some students did not enjoy the simulated practice sessions due to the role-play. Once the students used their skills in clinical practice however, they reflected that the simulated practice session had been helpful in preparing them.
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Studio 1
FO35
Students' and supervisors experiences of a placement with an after-hours service
Barton, P.
Introduction
Over the last decade, the number of undergraduate medical students in Australia has increased by more than 80%, but the supply of clinical teachers and placements for students remains static.
Using 'after hours locum doctors' (AHLDs), the Melbourne Medical Deputising Service (MMDS) manages a broad range of conditions infrequently seen in GPs clinics during the day.[1]
Aim
To explore the experiences of students and ADLs undertaking an after-hours placement.
Methods
Qualitative: one focus group with five students, and face-to-face interviews with three AHLDs from MMDS. Data were analysed using a thematic framework analysis. Ethics approved by MUHREC.
Findings
Seven students and four AHLDs participated.
Benefits: Students observed a range of cases depending on time, domestic arrangements and geographical location. Travel time between cases was beneficial to de-brief and advance learning. The AHLDs appreciated the students' presence but felt the students slowed them down. The unique learning included real-time appreciation of client social situations, critical assessment and triage of undifferentiated presentations without access to sophisticated equipment and medical interventions; and care specific to management of patients in their homes and nursing home facilities. Clearly defining student and supervisor roles would improve this experience.
Challenges: Students were challenged with dealing with the death of patients, acutely psychotic patients, working in risky environments, and confronting professional issues. For AHLDs, personal safety and professional isolation were important.
Discussion and Conclusion
All reported the placement was enjoyable, feasible and successful, with greater clarity around roles. This study highlights that MDSs and AHLDs are untapped resources for clinical placements where students can gain a better understanding of patients' social situations critical assessment and triage of presentations not typically seen in general practice; and undertaking medical interventions and patient management unique to home and nursing home environments.
Reference List
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FO36
Delivery of CPR in medical schools in Australia
Barton, P.
Introduction
In 2006, the Australian Resuscitation Council (ARC) acquired the co-badging rights to the Immediate Life Support (ILS) and Advanced Life Support (ALS) courses from The Resuscitation Council of the United Kingdom. In 2010 the ARC and the New Zealand Resuscitation Council (NZRC) co-published joint resuscitation guidelines (1).
Aims
To identify:
1. The educational strategy and value attached to resuscitation in curricula in universities in Australia,
2. The clinical discipline of those responsible for delivery and assessment of the curricula, and
3. The extent of institutional interest in a common Immediate Life Support certification.
Method
Questionnaire adapted from the validated UK questionnaire (2). MUHREC approved.
Results
Data were collected between December 2011 and February 2012 by telephone; 16/18 medical schools in Australia participated.
All offered Basic CPR: 13 during Year 1, 3 mid-way through the academic program and 1 in final year and 13/16 assessed annually, 1/16 biannually, 2/16 did not assess, using summative only (4/16) or formative and summative (10/16) methods
All offered Advanced Skills: 1/16 in Year 1, 10/16 during the program and 5/16 in final year
Training was provided variously by: external agencies (3/16), paramedics (5/16) clinical staff (16/16 and /or specialised trained nurses (4/16)
Discussion
All favoured a common competence but opinion varied as to whether this should be ILS, ALS or a hybrid of ILS and ALS.
The rebadging by the Australian Resuscitation Council of the ILS course is a positive option to align with European standards for interns.
Conclusions
Medical schools in Australian are staffed by dedicated clinicians and educators, committed to preparing graduates to provide high quality emergency care including CPR. Promoting standardisation of CPR courses, through the requirement for ILS certification, offers a single internationally benchmarked measure.
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O33
Medical and Pharmacy Students: Professional Integrity and Responses to a difficult hypothetical case
Hawken, SJ., Ram, S., Henning, MA., Malpas, P.
Background
There is on-going interest in the development of a health professionals' moral reasoning as it links to professionalism and clinical competence. Clinicians often face difficult dilemmas in their professional practice and the development of moral reasoning supports their decision making process. Understanding students' moral development is important for educators in order to support students and because it creates a platform for later professional practice.
Aim
This qualitative study aimed to explore students' moral reasoning and its link to professional integrity.
Methods and Sample
A questionnaire comprising of a set of scenarios with respect to moral reasoning and involvement in academic dishonesty was administered to 433 (response rate of 66%) medical and pharmacy students. Students' moral reasoning processes and justifications were examined in response to a case scenario involving potential theft of a drug to save a patient's life. The data gained was evaluated using Colaizzi's phenomenological approach.
Results
The open ended responses to the case scenario were then coded and categorised. The main themes that emerged from the data were based around deontology, consequentialism and virtue based reasoning. Several sub themes were also identified that included morals, religion, consequences to the doctor in the scenario, allocation of resources, and the impact on the profession. In the absence of clear legal or professional guidance, students appear to revert back to their personal frame of reference in resolving dilemmas. Students that were able to articulate and provide reasons for their decisions were more likely to present more acceptable choices.

Conclusion
The findings indicated that students justified their actions according to different types of moral reasoning processes. This implies that students need multi layered educational approaches to develop their moral frames of reference and to consider these in light of the professional codes of conduct for each profession.

P20
Using a blended learning approach to education and training for Infusion Device safe and effective practice
Ogg, H., Irvine, S.
Presented by Morse, J.
NHS Grampian is a large geographical area that has practitioners' working with Infusion devices in remote and rural areas as well as within acute service settings.
In order to ensure safe effective practice with the management of Infusion Devices, a blended learning pathway has been developed which includes e-learning and assessment, practical 'hands on' practice and competency assessment in clinical practice, This pathway aims to 'provide a consistent organisational quality educational pathway to support the development of competent, safe and effective practitioners'..as well as obtaining maximum equity of access and engagement of learners across the organisation.
Throughout the pathway professional accountability and responsibility regarding infusion administration is strongly promoted. The pathway is situated in a Learning Management System which facilitates tracking for the learner, managers and for audit purposes
The benefits are optimal for safe effective patient care and the promotion of organisational learning however, this is not without its challenges which include:
- IT Literacy within the workforce
- Engagement with the Personal Development Planning and review process
- Organisational acceptance of a standardised approach
- The variety of Devices available within organisation.

P21
"Creating a Realistic Dental Environment to Enhance Learning of Medical Emergencies in the Undergraduate Curriculum"
Ramsay, J.
Background
The General Dental Council's (GDC 2002) "The First Five Years" provides a framework for undergraduate dental education and highlights the need for students to be competent at carrying out resuscitation techniques and the immediate management of certain medical emergencies such as anaphylactic reactions.
Newby et al (2010) however, suggests that there is evidence that many qualified dentists do not consider themselves competent in upon graduation. This is therefore a challenge for training providers to "produce individuals who meet the outcomes the GDC requires" (GDC 2011).
Method
A dental surgery was developed to provide the contextual realism for student learning using existing resources within our Clinical Skills Centre i.e. ALS Simulator, portable dental chair and we utilized smells and sounds within the dental practice by means of oil of cloves and a sound wave of a dental drill.
We evaluated the impact of this intervention using a 5-point Likert scale questionnaire with open response questions related to their self-perception of both the realism and their learning following the training session.
Results and Conclusions
Student responses reinforced the need to use simulation as a training method 100% either strongly agreed or agreed and the simulation was realistic of a dental setting 81% either strongly agreed or agreed.
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P22
Human worn partial simulator - the cut suit is a novel simulation technology made to improve medical student and physician surgical and procedural skills: thus enhancing the training in both the classroom and the austere environment
Hunt B, Wall V, LaPorta AJ, Slack S, Rodriguez V, Chalut C, Bowden R, Lamb A, Douglas S, Wendahl, A
Presented by LaPorta, AJ.
The innovative Human-Worn Partial Task Surgical Simulator (Cut Suit) provides the ability to train and assess medical students' technical and non-technical skills in a hyper-realistic open surgical simulator, a novel opportunity filling an existing need in simulation technology.[1] Worn by a live human, the Cut Suit simulates the anatomy, feel, and smell of

trauma events or surgical diseases while allowing medical personnel to practice life-saving procedures and surgical interventions. The skin, organs, and bones are user-repairable, allowing for repeated uses.[2]

Rocky Vista University College of Osteopathic Medicine in Parker, Colorado, is the first medical program to incorporate the Cut Suit into surgical training. The Intensive Surgical Skills Course (ISSC) for second-year students is an experimental training model that provides a realistically simulated operating room for training in non-technical skills (professionalism, stress management, leadership, communication among the surgical team[3]) while students learn technical skills using the Cut Suit. Technical competencies include trauma management, knot tying and suturing, and full operations. Assessment of ISSC participants demonstrated significant improvement in both skill sets. The data from this pilot study supports further development of the ISSC using the Cut Suit during didactic years of medical school to improve preparedness for later clinical training years.

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P23
Evaluation of laparoscopic simulation training in the North of Scotland training deanery
Gale, MD., Bradley, A., Ramsay, G., Kumar, M., McAdam, TK.

Background

Multiple studies have demonstrated that simulated training of laparoscopic procedures improves speed, efficiency of movement and that these skills are retained in the shift to operative surgery [1-4]. With proposed changes to the surgical training curriculum to further incorporate the role of simulated laparoscopic surgery it is timely to consider what is happening at the coal face of training. The goal of this study is to evaluate the role of laparoscopic simulation in general surgical training from the perspective of registrars within the north of scotland deanery.

Methodology

An anonymous online survey will be given to surgical registrars (ST3+) prior to attending the North of Scotland Simulation Course in August 2012. We will evaluate laparoscopic simulator availability and use within the current training framework and trainee perceptions with simulation as an adjunct to training. A further online survey will be sent at a point 3 months following attendance at the course. Face and content validity of simulators will be analyzed on a 5-point Likert scale questionnaire. Qualitative and quantitative data regarding changes in perception following a training session designed to facilitate uptake of simulation will be presented.

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P24
Developing clinical masters for clinical examinations
Verjee, MA., Sawan, L.

Introduction

Clinical competency has traditionally been a case of learning "on the job". A new pedagogy was designed at WCMC-Q after the first year's exposure to patients in a four year medical curriculum.

Methodology

Seven faculty called Clinical Masters, were trained as a group in a workshop, with Standardised Patients (SPs). Each system was designed, listing "must be able to do" and an extended "should know" for the student. SPs were taught expectations of a practice examination of each system, with a checklist. A large group session was held to teach the student class, with customised video recordings of a clinical examination. These examinations are taught to a group of four. After 1.5 hours, each student achieved demonstrable proficiency. SPs completed a formative evaluation a week later, and gave immediate feedback. Students failing to pass the standard set at 80%, underwent remediation and re-evaluation. Correlation with USMLE Step 2 CS examination success is in progress.

Conclusion

Better trained medical students, fully prepared to be able to examine once hospital experiential training commences, have a better foundation for future clerkships. Preliminary results show that competence with Clinical Masters training increases compared with those who have not.

FO37
A Novel Simulation based Teaching Programme for Geriatric Medicine Specialist Trainees in North Thames
Dimmock, V., Dasgupta, D., Mitchell, S., Collins, F., Wood, E.

Simulation has been shown to improve clinical decision-making, and to reduce medical error through improved teamwork. It is possible to expose trainees to rare, yet high-risk clinical situations and common error-producing conditions without affecting patient safety.

We designed a novel, multi-professional, simulation-based teaching programme for specialist geriatric trainees to address patient safety, advocacy and dignity.

Three multi-professional training days were delivered in 2011-2012 for 30 trainees. Curriculum linked scenarios were developed with facilitated debrief.

100% stated that they felt confident to use the skills learned in the workplace, that training integrated theory and practice, the course was stimulating and motivating. Free text feedback was extensive and useful. Trainees cited diverse learning points from the technical, non-technical and cognitive domains. Comments such as "There is no other setting in which we debrief in peers and share experiences - …… this was excellent" and "use of debrief sessions and opportunity to talk through real life with personalised feedback"

This use of simulation offers opportunities to address areas of the curriculum rarely taught formally. Over 90% of trainees recognised this to be an exciting learning method. Further work will incorporate other areas from higher training grids of the curriculum into the programme.

FO38
Simulation to clinical practice: Medical students' experiences of learning to perform pelvic examinations
Irvine, S., Martin, J., Fairbank, C.

Introduction/Background
When a doctor can go beyond performing the skill of a pelvic examination and also focus on communication and interpersonal skills, this can have a positive impact on women returning for scheduled screening (Polito, Clark et al. 2008). The CTA program was introduced into the Monash medical student program in the Eastern Health Clinical School to provide a holistic, contextualised focused approach to intimate procedures. The Clinical Training Associate (CTA) program trains laywomen to become professional patients in order to teach medical students speculum and bimanual examination. Incorporated in the program is the correct technical procedure as well as skills such as consent, communication, respect and privacy. No studies have explored students' perception of the CTA program and subsequent experiences in clinical practice. The significance of this research lies in the in- depth exploration of medical students' experiences of the CTA program and their experiences in clinical practice of performing pelvic examinations.

Findings
Broad questions provided a less structured approach to five focus group interviews with medical students. Thematic analysis of content using NVivo, created a rich interpretation of the students' experiences. We discuss how the CTA program positively impacts on student confidence, technical and communication skills and link this with the students' aspiration to achieve a level of proficiency in the clinical setting. The students' perception of learning opportunities both positive and negative will be discussed within the domains of the sensitive nature of pelvic examination, culture, gender discrimination and the curriculum.

Conclusion
The CTA program prepares the student for clinical practice, however both the clinical learning environment and aspects of the curriculum negatively impact on the quality of student learning experience. As well as the CTA program, quality learning opportunities in the clinical setting are necessary for the students to achieve a level of proficiency in performing pelvic examinations, beyond a task focused approach.

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O34
Can participation in pre-enrolment 'performance' activities influence outcomes of a 1st year Physiotherapy OSCE?
Storr, M., Maloney, S., Paynter, S.

A common form of assessment within health-related practical training is the use of the OSCE (Objective Structured Clinical Examination) as a means of assessing practical / clinical skill performance. Numerous studies have investigated factors that may influence student performances in OSCE assessments (Basco et al, 2000; Mavis, 2000; Mavis, 2001). However, a review of available literature reveals very little has been written about the potential influence of previous participation in 'public-performance' based activities (i.e. stage / musical / sporting performance) on OSCE performance outcomes. This project investigates whether there may be a relationship between participation in pre-course 'performance' activities and 1st year, semester 1 OSCE results for students enrolled in the Bachelor of Physiotherapy (BPT) at Monash University. Ethics approval was granted and data gathered from

current under-graduate students (n=86) will be compared using multi-variate analysis techniques to investigate the effect of participation in 'performance' activities on mean OSCE scores. It is hypothesised that, given the physical 'performance' nature of the OSCE and regular student feedback identifying the negative influence of performance anxiety on outcomes, students who have had previous 'public-performance' experience have better outcomes than those with no experience. If a positive link can be established, there is the potential for implementing targeted training strategies with the aim of improving student assessment outcomes.

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P25
Computer-based test on clinical skills: bringing student's learning to the real setting of emergency condition
Prihatanto, FSI., Rehatta, NM.

Skills in emergency condition must be achieved. In the standard of medical doctor competence, the emergency skills determine the level of ability of each disease. In accordance to objectives, instructional design includes assessment process. It has been general agreement that assessment drives learning. In the other hand, the advancement of information and communication technology gives opportunities to bring a realistic setting. We developed this program to accommodate real setting in learning on emergency. Students also train their speed in treating emergency condition. A higher level of assessment based on Miller is achieved by developing scenario based item. Calculation of fatal and non-fatal mistakes is performed for scoring system. Furthermore, the program needs to be evaluated.
To assess implementation of CBT towards student's learning on emergency skill. After involving in a session of CBT, student fills questionnaire containing open ended questions regarding examination.
We evaluate based on first level of Kirkpatrick. A number of 198 returned questioners showed positive responds on the method of learning. On the contrary, negative responds especially for technical aspects. We will further assess the effectiveness of the program in supporting learning in higher level of evaluation and more in-depth data collection.

P26
Self-assessment to support learning: Testing an instrument for assessing students in Interprofessional context
Sjöstedt, M., Forsberg Larm, M., Bjöörn Fossum, B., Ponzer, S.

Background
In order to meet increased care needs and too improve health, tomorrow's health care and nursing staff will be working in teams to a large extent compared with today. IPE (inter-professional education) prepares students to meet tomorrow's requirements and develop knowledge of the skills of various professions in future team work. In a clinical training ward (KUA) students are participating in a mandatory IPE course. The aim is to offer students from four different programmes to take part in a fourteen days IPE training to learn how to cooperate and collaborate with other professions. In activity-located education (VFU) a professional attitude is taught in various connections. The students are most frequently assessed formally as regards their knowledge and skills. The necessary third component, attitude (treatment, conduct, communication and attitude) is often assessed more informally and the student seldom receives constructive feedback about this aspect. The feedback process is part of the student's learning and should be integrated to help them to reflect about their knowledge, skills or attitude, which is a valuable part of the student's learning and leads to deeper knowledge. There is a lack of an overall assessment tool for IPE courses where all categories of students can be assessed by the same measure. Formative assessment is important, the lack of an assessment tool means that the assessment of their professional development on IPE courses cannot be systematised.

Aim
To describe the usability of the P-MEX assessment tool in an inter-professional connection.

Method
The approach of the study is qualitative and descriptive and is selected from the problem areas of the study. The phenomenon that is studied is the estimates of students and tutors and the result is the degree to which the tool is used. Usability means the relevance of the questions, which questions are answered in an IPE connection and whether the questions can be linked to the courses learning outcomes i.e. knowledge, skills and attitude. Students from medical-, nurse-, occupational- and physiotherapy- programs assessed themselves (n 143) as well as their facilitator (n 16) assessed them.

Result
The tool contained 21 statements, divided into three categories: knowledge, skills and attitude, with each category containing 7 statements. Both students and tutors have made estimates concerning all the statements. The students' estimates ranged from an unacceptable level to a better than expected level, the tutors made their estimates by levels - under- expectation level, expected level and better than expected level.

Conclusion
The result shows that the P-MEX tool provides a basis for systematic feedback on the students' learning irrespective of which category of students they belong to. The statements in the tool reflect the students' professional development in an Interprofessional context.

Keywords
Learning, professional development, Interprofessional, feedback, assessment Professional Mini-Evaluation Exercise (P-MEX)

P27
Establishing the evidence base for a clinical tradition - examination from the patient's right side
Blessley, I., Frain, J.
Background
Evidence based medicine includes the physical examination within its remit [1]. Students request teaching on evidence for the skills they are expected to perform [2]. From the beginning students are advised to approach the examination couch from the patient's right side but are unsure why [3].
Methodology
Following a search of medical databases and clinical examination textbooks, a review was undertaken to find evidence supporting the tradition of examination from the patient's right side. This included the general examination and particular procedures (eg: the jugulovenous pulsation, palpation of the spleen, rectal and pelvic examination)
Results and Discussion
Although there is no experimental or other research evidence to support examination from the patient's right side, there are nonetheless compelling reasons for this tradition:
  • Standardisation of approach including positioning of the couch
  • A majority of patients are right handed
  • Anatomical
    ○ Jugulovenous pulsation
    ○ Apex beat
    ○ Right middle lobe of lung
    ○ Liver and spleen palpation
Research on proficiency of examination for both left and right handed doctors using a right sided approach could arguably be undertaken.
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P28
Clinical Skills Bundles: a new approach in teaching safe practice
Mok, M., Ker, J.
Introduction
A care or treatment bundle is a set of 3-5 evidence based interventions that, when used together, significantly improve patient outcomes. Compliance of care bundles is used as one of the indices of quality of care. The delivery of each care or treatment bundle requires a number of clinical skills (CS). Grouping the CSs together and teaching them as clinical skills bundles (CSBs) could improve standards and consistency of clinical practice in the workplace.
Method
Two pilot "Clinical Skills Bundles" workshops were held in June 2012 for nursing and medical students. The workshop consisted of an introductory interactive session to identify the matching clinical skills required for various care bundles followed by 3 skill stations on central venous catheter care, peripheral venous catheter care and sepsis resuscitation treatment bundles.
Result
31 students attended 2 pilot workshops. The evaluation from students showed 80% and 20% had excellent and good experience respectively. The students also wanted more workshop opportunities and more workshops on different bundles.
Discussion
The concept of "Clinical Skills Bundles" encourages health care professionals to consider and acquire the matching clinical skills for care bundles. The ultimate aim is to improve the quality of care and patient safety by performing the bundle correctly. It is our plan to further develop the "Clinical Skills Bundles" workshop to cover a variety of care and treatment bundles.
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P29
Does exposure to Simulation for medical students improve their clinical reasoning capabilities,
as measured by Script Concordance Testing
Lovett, S., Roche, J., Hunter, S., Tomlinson, N., Charlin, B., Gagnon, R., Symonds, I., Mattes, J.
Presented by Roche, J.
High fidelity simulation (HFS) is widely used in medicine to teach trainees a variety of technical and
non-technical skills in a defined environment. The simulation environment allows trainees to practice skills and
make mistakes without risk to patients, and allows trainers to have a greater control over the training procedure and
assessment of proficiency [1]. There is limited information as to whether this
form of teaching has any impact on the trainees' ability to make appropriate clinical decisions when placed in
uncertain situations [2].
In our pilot study we utilized script concordance tests (SCT) [3] to investigate the hypothesis that HFS training
improves the clinical reasoning capabilities of fourth year medical students, during their paediatric rotation.
Medical students (n=39) were randomised into either HFS group or the control group. All students were exposed to
the standard curriculum teaching in Paediatrics. The intervention HFS arm underwent one day of HFS exposure in
emergency paediatric based scenarios [4]. All students completed a SCT at the beginning and end of the paediatric
rotation.
Analysis is pending of the result of the two groups' SCT scores to see if there is an increase in clinical reasoning
capabilities of the students exposed to HFS as compared to the students who received current standard teaching
methods.
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Concordance Test. Annals of Emergency Medicine, 53(5), 647-52.

Breakout 1
FO39
A Pre Intern Intense Specialized Skills and Simulation Training (ISSST) "Boot Camp"
McKeown, PP., Martin, R., Canales, C., Landow, A., Morgan, K.
Pre intern intense "Boot Camps" are becoming increasingly popular ways to integrate skills and knowledge in an
effort to make graduates workplace ready. A pre Intern Intense Specialized Skills and Simulation Training (ISSST)
"boot Camp" was run for 36 third year medical students at the University of New England School of Rural medicine,
as a pilot program. The four day course consisted of didactic lectures / fixed resource sessions in the morning and
multiple skills stations in the afternoon. Skills stations included animate training models for suturing, chest tube
placement and the use of ultrasound for intravenous cannulation techniques. The course covered, sepsis, trauma
management including use of FAST ultrasound, psychiatric emergencies, obstetric emergencies, blood gases, cardiac
emergencies and the management of hypoxic and hypotensive patients. During the last two days of the course two
complex simulation scenarios were used to integrate the information learned and skills acquired. Assessment of the
course by both students and faculty was overall very positive. General comments and appraisal supported the use of this
intense program. Suggestions for improvements included   additional practice stations and skills labs as opposed to the
fixed resource sessions (FRS), and to have some pre readings and more extensive pre and post course assessment.
Based on the success of this pilot program further boot camp courses are being planned. They are an effective way to
integrate skills and knowledge and enhance competency.

FO40
A Video Reflexivity Study of Feedback during Clinical Skills Teaching within a UK Medical School
Urquhart, L., Rees, C., Ker, J.
Background
Feedback allows student understanding of positive/deficient aspects of performance and facilitates future
improvement.[1] However, learner reports of feedback often differ from those of providers, possibly because feedback
is not recognised as such by learners.[2] This is an important area of concern within clinical skills teaching wherein
feedback is often given "in action".
Methods
This study has used video reflexivity methodology[3] to compare student and tutor understandings of feedback "in
action". Ten clinical skills sessions were filmed and students and tutors were invited to attend separate reflexivity
sessions wherein clips of the sessions were shown and feedback discussed. Each reflexivity session was filmed and
the discourse transcribed.

Results/Conclusions

In Prato, the framework analysis of data will be presented to illustrate key themes, in particular differences between teachers and learners. Recommendations for feedback practices within clinical skills teaching will be provided.

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O35

The Role of Feedback in Technical Skills Acquisition: Investigating the Efficacy of Video Assisted Feedback

Nesbitt, C., Sakutombo, D., Pooleman, I., Chambers, J., Gungadeen, A., Stansby, G., Searle, R.

Clinical skills training is an integral part of the early medical undergraduate curriculum at Newcastle Medical School but restricted staffing can limit the extent of feedback to individual medical students.

The aim was to assess the role of video-enhanced feedback, in particular unsupervised video enhanced feedback, in maximizing medical student performance during clinical skills.

Thirty-six medical students were randomized into the three feedback groups and taught basic suturing (instrument tied reef knot). Group 1 received standard feedback of their performance by a generic power point presentation of the most common errors and difficulties but no individualised feedback. Group 2 received unsupervised video-enhanced feedback of a real time, unedited video of their own performance (without commentary), an edited video of an expert performing the suturing exercise with expert commentary and a video of an expert delivering 'hints and tips' but no individualised feedback was provided. Group 3 received individualised video-enhanced feedback and was given individualized real-time one to one feedback on their performance.

Candidates' pre and post-feedback suturing performances were scored using a modified Objective Structured Assessment of Technical Skill scoring tool (OSATS) providing an overall score (OPS) of technical performance. Two blinded suturing experts then scored each video performance for a second time.

All candidates significantly improved their performance scores following either generic lecture based feedback, unsupervised or individualised video feedback. However using multiple comparison tests the level of improvement of group 1 was significantly reduced compared with groups 2 and 3 but no significant difference in improvement were seen between groups 2 and 3.

This is the first trial to show a significant benefit of unsupervised video feedback for teaching novices to perform a surgical skill with no difference in performance when compared with individualized video expert feedback; this has exciting potential for many aspects of medical training.

P30

Peer Tutor Recruitment and Selection

Sahin, S., Tincknell, L.

Background

St George's University of London (SGUL) utilises peer tutors to help deliver clinical skills teaching since 2001. The GMC guidance for students requires them to contribute to teaching students and to demonstrate basic teaching skills. Development of a fair and effective selection system is necessary. As the peer tutors do not qualify for any formal training or certification it is important that their own development is nurtured.

Methodology

An application form assesses candidates' suitability for teaching. Three 'essay-type' of questions assess how the candidates apply their teaching and communication skills practically. Applications are double marked by two lecturers according to the rigorous marking criteria.

On acceptance onto the peer tutor programme tutors receive their initial training in basic teaching skills. Optional workshops address further development.

Discussions

Candidates found the application form challenging; however the answers to the questions were more focused and allowed to discriminate between candidates more effectively. The feedback from workshops has been overwhelmingly positive with comments indicating that tutors are keen to develop more advanced teaching skills.

Conclusions

Tutors are keen to attend sessions which involve practical advice on how to teach. Attending those sessions will allow them to develop their own clinical skills.

P31

Using a "Freeze Frame" ward simulation to prepare FY1 doctors for clinical Practice

Fox-Hiley, A., Cunningham, Ward.

This poster describes the use of a "freeze frame" ward simulation as a learning tool for the preparation of junior doctors.

Nationally a four day shadowing programme was piloted for all new FY1 doctors. The purpose of the programme is help equip recent medical graduates with the local knowledge and skills needed to provide safe, high quality patient care, from their first day as a F1 doctor

Medical Education Leeds delivered a programme for the 100 new starters which incorporated a day of "freeze frame" ward based simulation scenarios.

The scenarios were curriculum linked and based on Trust patient safety initiatives. Participation required the demonstration of decision making, prioritising, team working and communication skills.

Scenarios took place in a ward area within the simulation centre. In groups of 12 delegates facilitated by consultants and junior doctors, were guided through the care of a group of simulated patients. Delegates were invited in turn to manage the scenario, with facilitators freezing interventions at key learning points where decisions were discussed and key skills practiced, including opportunities for completion of relevant Trust documentation.

Immediate delegate feedback indicated a high level of relevance, realism and effectiveness in preparation for the clinical environment.

Reference List
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Guidance Notes
United Kingdom Foundation Programme Office (2012) The Foundation Programme Curriculum 2012

P32
Behind closed doors: Preparation for Learning in Peri-operative care
Hunter, J., Cole, E., Perovic, N.

Peri-operative care is addressed within the pre-registration nursing curriculum through theoretical preparation, simulated practice and clinical placement. Despite this preparation, nursing students express high levels of anxiety prior to commencing their placement in theatres and anaesthetics. They report feeling unprepared for the experience and demonstrate a lack of understanding of the principles of patient safety and the differing roles of the healthcare team.

Education is known to be more meaningful when placed in the context of the students' practice (WHO, 2009), and so a learning package enacting each stage of the patient's journey though the operating theatre was produced to demystify students' perceptions and equip them with knowledge of the key principles of patient safety

Prominence is placed on the WHO surgical checklist, scrubbing, gowning and gloving procedures, prepping and draping, preparation of the instrument pack and immediate post-operative care in the recovery room. The package is designed to augment a blended learning approach to safe peri-operative care and patient safety and will also be appropriate for medical and midwifery students. The learning resource includes a set of short video clips, formative assessment and students are afforded the opportunity to prepare for their experience in advance (Ausubel et al, 1978). The poster presentation will illustrate the aims of this innovation, development of the online learning package, student evaluation data, and future developments.

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P33
Optimising student experience: an innovative and integrated tutor support
and development programme
Hammond, A., Henderson, J.
Presented by Henderson, J.
Background
The curriculum of the five year MBBS course at HYMS is integrated and student–centred with regular clinical skills sessions throughout the first two years. The clinical skills tutors are practising clinicians who deliver their teaching role alongside everyday clinical practice.

The essential features of our successful support system have evolved during our first eight years, creating a vibrant integrated and innovative Community of Practice.

Our support system includes
- Peer observation
- Regular online student-tutor feedback
- Regular tutor training sessions
- Regular Action Learning Sets
- New tutor mentoring
- Annual Performance Review

- Tutor commitment to completing a Postgraduate Certificate in Medical Education
- Core staff in key roles facilitating inclusion of tutors in all aspects of the medical school.
- Involvement in student assessment

Our tutors benefit and learn from each other's experiences whilst developing professionally as educators embedded within medical school life. The Community of Practice ensures that tutors deliver consistently high quality student-learning experience.

The evaluation includes
- Students complete online, anonymous evaluation of tutors
- We performed an evaluation of one session by observing all tutors
- Informal evaluation that problems are now frequently managed by the tutor group rather than by faculty

Session 11 – Parallel Workshops

Salone
KW06
Focusing the Lens: Standardized/Simulated Patients providing learner centered feedback
McConvey, GA.
Purpose
This workshop will focus on the training of standardized/simulated patients (SPs) to provide effective, learner-centered feedback using several communication methods and instruments.
Objectives
As a result of this workshop, participants will be able to:
1. Describe several methods that an SP can use to provide both subjective and objective communication feedback
2. Describe how to maximize faculty and SP feedback
3. Train SPs to provide feedback appropriate to the context of their own institution
Rationale
Standardized/Simulated Patients have been used in experiential activities for four decades. One of the advantages of working with SPs is the opportunity for learners to immediately reflect on the impact of their performance and discuss how this performance was experienced from the patient's perspective.
Activities
The workshop is participant-centred and experiential. Using trigger-clips, the participants will observe three feedback methods and instruments used by SPs. Participants will learn about the construct of these methods and instruments including the benefits and challenges of each. Working in triads, participants will be assigned one method and instrument to train an SP. Debriefing of the process and the implementation at individual institutions will conclude the workshop.

Sala Veneziana
W15
Faculty Development to Enhance the Educational Impact of Interactive Reflective Writing of Medical Students during Clinical Skills Courses: The Experiences of an Established and a New Medical School on Two Sides of the Atlantic
Reis, SP., Wald, HS., Gilby, P., MacNamara, MMC, Taylor,
Reflection is considered an essential competency for clinical reasoning, patient-physician communication, and professionalism. The use of reflective writing to augment reflective practice instruction is well documented; however, issues of effectiveness and valid assessment prevail. At the Alpert Medical School of Brown University (AMS) in Providence, RI, USA, Doctoring is a two-year required preclinical course. Students work in groups of eight with a physician and a behavioral science faculty pair to learn clinical practice skills. Outside of class, they write reflective narratives or "field notes" as well as clinical case write ups that are assessed by both of their small group faculty. At the new Bar Ilan University Galilee Faculty of Medicine, students are introduced to interactive reflective writing within a mentoring program that spans the school's four years. Students submit bi-weekly reflective narratives on their clinical experiences and receive physician mentors' feedback. A curriculum of students' reflective writing with guided individualized feedback was implemented at AMS in 2006, and at Bar Ilan in 2011. Frameworks for enhancing the educational value of feedback (BEGAN) and a rubric to evaluate students' reflective level (REFLECT) were developed and incorporated in both institutions through faculty development sessions. The BEGAN and REFLECT tools were included in student and faculty guides in both institutions. Based on this paradigm, workshop participants will be offered a sample reflective narrative to practice both providing written feedback and formal evaluation. This will be followed by a brief discussion. Subsequently, both curricula and BEGAN will be introduced. Participants will re-craft feedback using the BEGAN and discuss the exercise. Finally, the REFLECT will be applied to the essay. A general discussion, including an invitation for participants to consider potential applications of components of the program and evaluative tools in their own teaching and learning settings, will precede a wrap-up and session evaluation.

Objectives

By the end of the workshop:

1. Participants will be familiar with the constructs of reflection, interactive reflective writing, and reflective practice.

2. Participants will share the experience of two interactive reflective writing paradigms at the established Alpert Medical School of Brown University (US) and the new Bar Ilan University Galilee Faculty of Medicine (Israel) . 3. Participants will experience the use of the Brown Educational Guide to Analysis of Narrative (BEGAN) and an associated evaluation rubric, Reflection Evaluation for Learners' Enhanced Competencies Tool (REFLECT).

4. Participants and faculty will consider the merits, limitations, and possible utility of presented curricula and evaluative tools for their own programs.

Intended Audience

Undergraduate and graduate teachers and program directors, as well as those interested in the implementation of pedagogy to foster reflection through reflective writing and its evaluation in Medical Education (all experience levels welcome, no prerequisites, interest in reflective writing and evaluation helpful).

Summary of instructor's qualifications or prior experience in similar presentations: Similar workshops have been conducted five times at AMS and twice in Bar Ilan and presented in oral and workshop formats in a number of international educational settings. All of the presenters are highly experienced medical education faculty. The first author has taught in both courses, facilitated the majority of the workshops in both, and presented and published extensively on the subject. The third author is the Bar Ilan course director. The fourth author has experienced the Brown course from the perspective of both a student and a teacher. As the AMS course leader, the last author oversees all relevant faculty development activities.

Maximum number of participants

40

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Sala Toscana

W16

The ASPiH-HEA collaborative simulation project – Development of a collaborative improvement network for Simulation Based Healthcare Education

Baxendale, B., Scott, L., Stirling, K., Glover, G.

Intended Audience

This workshop will appeal to delegates currently involved in the delivery, design and evaluation of Simulation Based Healthcare Education.

Maximum number of participants

30

Learning Objectives

1. To describe and summarise outcomes form the ASPiH-HEA national simulation project to date.

2. To apply the ASPiH-HEA mapping tool(s) to exemplars from delegates own experiences of SBHE to highlight good practice.

3. To consider how the use of the ASPiH-HEA mapping tool(s) at an individual and institutional level might be used to promote collaborative communities of practice.

The Association for Simulated Practice in Healthcare (ASPiH) in conjunction with the Higher Education Academy (HEA) initiated an innovative time-limited project that will see the appointment of a cohort of Simulation Development Officers (SDO's). SDO's are located geographically throughout the United Kingdom (UK) and have a spectrum of professional healthcare backgrounds. Their activity will help to develop conditions which promote educational improvement and innovation and help demonstrate institutional achievement of educational goals. Ideally these should be linked to improvement in patient care and outcomes by encouraging collation of this data and collaboration on a national scale this project will help illustrate 'best practice' in simulation-based healthcare education (SBHE). During 2009-11 ASPiH contributed to discussions led by the Department of Health (DH) which culminated in publication of the DH Technology Enhanced Learning Framework [1]. This identified eight key principles that support effective and optimal use of SBHE (and other forms of educational practice) within the context of enhancing workforce development and improving the quality of patient care. Similar recommendations have been made from policymakers and stakeholders within the other UK nation states. However, there has been limited activity on a UK-wide basis to move these recommendations forward and establish consistent processes by which institutions commissioned to provide education could improve or demonstrate achievement of good or excellent practice.

The ASPiH-HEA SDO national simulation project has created a robust framework for documenting, analysing and understanding how SBHE is currently used within educational curricula at undergraduate and postgraduate level and

how examples of best practice can be developed and devolved between partner institutions to improve the quality of patient care delivery.

This highly interactive and engaging workshop will share and disseminate the structure, processes and results from the ASPiH-HEA national simulation project. We will explore opportunities to develop collaborative improvement networks for SBHE and discuss how this activity might inform standards and QA processes more formally on a national or international scale.

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Sala Giochi
W17
Developing Clinical Skills Bundles
Mok, M., Ker, J.

A care or treatment bundle is a set of 3-5 evidence based interventions that, when used together, significantly improve patient outcomes e.g. central venous catheter (CVC) care bundle and sepsis resuscitation bundle.

Clinical skills (CS) are defined as any action involved in direct patient care which impacts on clinical outcome in a measurable way. These include technical skills (TS), non-technical skills (NTS) and cognitive skills (CogS). Each intervention in a specific care or treatment bundle requires one or more clinical skills to fulfil to an acceptable standard. For example, an intervention in the "Sepsis 6 Bundle" is "fluid resuscitation"; the matching clinical skills involved can be divided into TS (appropriate clinical examination to assess fluid requirement, knowledge of appropriate fluid replacement in terms of rate, volume and fluid type), NTS (clear prescriptive documentation skills, communication skills with nursing staff and senior colleagues if fluid resuscitation does not achieve goal) and CogS (recognition of unwell patients and decision making and prioritisation of therapeutic tasks). A "Clinical Skills Bundle" (CSB) will ensure health care professionals reliably undertake standards of clinical skills for each care bundle. This approach to quality improvement should enhance patient outcomes.

Participants will be introduced to the evidence related to the impact of care bundles and will develop relevant clinical skills bundles to enhance both HCP practice and patient outcomes.

The participants will work in small groups in an exercise to list the matching clinical skills required for some common care or treatment bundles, e.g. CVC, PVC care bundles and sepsis resuscitation bundle.

Workshop Objectives
After the workshop, the attendants will be able:
To recognise the role of bundles of care in enhancing patient safety
To apply the principles of care bundles to the development of a clinical skills bundle
To develop a clinical skills bundle to enhance standards of clinical skills practice

Intended Audience
Multi-professional clinical skills educators

Maximum number of participants
20

Instructor's qualification
Dr May Mok MB ChB, FRCA, MSc Medical Education. May Mok is a Consultant Anaesthetist in NHS Tayside, UK and a Consultant in Clinical Skills in Clinical Skills Centre, University of Dundee, UK.

She is an experience clinical teacher in teaching procedural skills, non-technical skills and acute care management in both clinical and simulated teaching environment to under- and post- graduate medical and nursing professionals. Professor Jean Ker BSc (Med Sci), MB ChB, DRCOG, MRCGP, MD Dundee, FRCGP, FRCPE, FHEA. Jean Ker is Professor of Medical Education and Director of the Clinical Skills Centre and Associate head of the Medical Education Institute at the University of Dundee. She is clinical lead for the National Clinical Skills Managed Education Network for Scotland.

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Studio 1
W18
An Interprofessional Educational Curriculum Enhancing Clinical Skills
Schocken, DM., Rossiter, A., D'Aoust, R., Swisher L., Sereg, E., Moore, T., Cuppett, M., Bond, W., Haubner, L., Monroe, A.

Background
An Interprofessional team developed a modified outpatient version of nationally recognized and evidenced based curriculum. The IPE workgroup adapted the Interprofessional Educational Collaborative (IPEC) core competencies as a basis for clinical skills for learners in an outpatient setting. This curriculum focuses on patient-centered care.

Session Overview
The workshop provides the opportunity to adapt skills content for patient centered care to be applied and adopted as skills sessions. The adaptive curriculum gives participants an opportunity to develop skills sessions in outpatient settings. Participants will work in small groups to develop learning strategies to enhance the adaptive curricula, using the tenets of course development for adoption into their academic curricular goals. Each small group will be given opportunities to present their representative strategies to the entire group for feedback and evaluation. The faculty will provide assistance, guidance and experience to the participants on IPE curriculum development, as well as common evaluation tools that would assist in the measurement of the curriculum success.

Session Learning Objectives
At the end of this session, the participants will be able to:
1. Discuss the challenges of implementing an Interprofessional teamwork curriculum within a complex academic healthcare center, to enhance the learner's development of clinical skills in the IPE setting.
2. Describe the methods of developing an IPE team within their healthcare setting with the goal of adapting a modified IPE curriculum in an outpatient setting.
3. Outline the steps necessary to write appropriate learning strategies for the IPE curriculum including the development of educational objectives, and outcomes measurements.

Audience
This session is designed for 50 total beginning and intermediate audience participants

Enduring Materials
At the end of this workshop, each participant will be given a copy of their own adapted IPE preclinical and early clinical outpatient curriculum to develop an adaptation within their own setting.

Breakout 2
W19
Teaching motivational interviewing skills into undergraduate clinical programs
Barton, P.

Format
A blended and immersive educational program involving literature perspectives, direct experience of undertaking motivational interviewing itself with feedback on simulated performance, and open discussion about tips and pitfalls in introducing a program into undergraduate program. Constructing assessment tasks of motivational interviewing will be discussed.

Activities
Participants will discuss in an open forum key theoretical concepts in motivational interviewing. They will witness through use of exemplar DVDS poor and good exemplars of health care interventions and critique how they are different. They will share their prior experience in both their role in health care provision and teaching health interventions to clinical undergraduates. They will discuss barriers to and be offered strategies to use in overcoming introduction of motivational interviewing into curricula.

Learning Outcomes
By the end of the session participants will:
1. Understand the ethical difference between motivational interviewing and other intervention techniques for assisting patients to change their behaviour
2. Understand some of the natural behaviours that health professional use when intervening with patients and how these affect outcomes.
3. Understand some of the complexities and challenges to introducing motivational interviewing into their own undergraduate curricula and have reflected on how they could overcome these.

Instructor Qualifications
Dr Peter Barton is an experienced family medicine specialist and academic who has worked in undergraduate and postgraduate programs in the UK and Australia. He has attended training workshops on motivational interviewing in Australia led both by local experts and by Dr Miller, one of the two authors of concept of motivational interviewing. He introduced motivational interviewing to year 4 MBBS at Monash University and will have presented his undergraduate workshop 10 times by the time of the Prato conference. He has presented this material at the prestigious Annual Murtagh update course in 2011, and internationally to cohorts of senior Chinese doctors within the specialised program at Monash University. He will again present on this at the Monash GP Program in 2013.

O36
Reflection on the Evidence Base for a Clinical Skill
Frain, J.
Aims
For students to apply the principles of evidence-based medicine to a patient encountered during early clinical experience and to evaluate the research evidence available for an aspect of the patient's history or physical examination
Background
The history and examination remain important in the vast majority of diagnoses [1-2]. Evidence-based medicine should include the physical examination within its remit [3]. Integration of evidence based medicine in the curriculum and in a patient based context can help students develop the requisite skills [4]. Students utilise history and examination skills from the earliest stages of the curriculum during early clinical experience. In some respects, they participate in the clinical assessment of patients encountered. Consideration of the evidence base for an aspect of the clinical assessment may help students appreciate both the benefits of an evidence based approach to learning and to the utility of their clinical skills.
Methodology
Students were given training in techniques of evidence-based medicine during a course of workshops. In clinical skills sessions they were provided with evidence based workbooks and taught about the underlying evidence. They were asked to identify during an early clinical experience visit a patient with an interesting aspect of the history, examination or physical important in helping the doctor to formulate a diagnosis. Students then formulated an appropriate clinical question, search strategy and identified, from the literature, evidence for the clinical skill. Following appraisal of the literature, students reflected on the usefulness of the skill in their patient and the wider use of evidence based medicine in clinical assessment.
Results
Development of the coursework, results for the first two cohorts of students together with qualitative and quantitative feedback from the students and teachers will be presented and discussed.
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O37
Building Bridges: Understanding differences between technology and pedagogy in simulation
Guinea, S., Anderson, P.
While it is acknowledged that pedagogy affects the way hundreds of thousands of learners of different ages and stages are taught (Mortimore, 1999), in simulation it has become increasingly difficult to discern between the use of terminology relating to technology and pedagogy. This has become an issue for academics in heath education and has been fuelled by product promotion and simulation literature. Terminology is used in diverse ways which reflects differing understanding and perceptions about educational practice utilising simulation (see Decker, Sportsman, Puetz, & Billings, 2008; Laschinger et al., 2008; The INASCL Board of Directors, 2011). This presentation initiates a dialogue about the ideology of simulation, industry and academia exploits and explores the relationship between simulation as a technology and simulation as pedagogy, and how the interface between the two concepts is impacting on the development and delivery of education in healthcare. It addresses issues related to difference in dialects internationally and industry influence. In doing so it raises the questions: are the issues confounding our understanding due to ignorance or design and is simulation an industry more than a pedagogy?
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O38

Pilot study to identify if the non-technical skills required for safe prescribing in senior medical students can be described through direct observation

Ambrose, L., Bartlett, M., Gay, S., McKinley, RK.

Outline

This study used direct observation of final year students completing a prescribing task in simulation to describe the non-technical skills involved in prescribing.

Background

Prescribing error is an important patient safety issue (1). For educators to gain a better understanding of how to develop these skills they can be considered as technical and non-technical skills. Technical skills have been described via the analysis of errors in prescriptions and research has attempted to understand other influences from interviews after significant adverse events (2). This study sought to identify the non-technical skills involved in prescribing through direct observation.

Results

Paired judges reviewed video recordings of final year medical students in a formative OSCE station with a standardised patient using a method of describing skills by anchoring them to consultation events. Here the anchor was errors related to prescribing. In pilot work pairs of assessors reached good agreement on the presence of error (87%) (3). Analysis is on going and results will be available for conference, including agreement between observers, the nature of observed errors and associated non-technical skills.

Conclusions

The initial analysis has demonstrated a range of non-technical skills anchored to error events including situation awareness, knowledge and reasoning behaviours.

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O39

"Wise men put their trust in ideas and not circumstances": Assessment of year 2 medical students in Northern Uganda

Lees, N., Surgenor, M., Byrne, G.

Background

UHSM has been involved in the medical education of students at Gulu University since 2006. Current assessment methods are written paper and ward based assessment, the latter perceived as arbitrary by both clinicians and students. The Ugandan Medical Council is keen to introduce OSCEs as an assessment tool to ensure harmonisation of national standards of medical practice with international standards.

Summary of work

OSCES were piloted with Year 2 medical students following a week where basic clinical skills were taught, forming the blueprint of the OSCE. Local examiners were pre-trained and mentored during the OSCE by experienced Manchester examiners.

Summary of results

The OSCEs ran after overcoming various logistical and cultural challenges. Cultural differences included attitudes of Gulu examiners to a completely different and in some ways extrinsic way of assessing students, juxtaposed with the predispositions and expectations of the Manchester examiners and organisers.

Conclusions

Our experience shows it is possible for culturally relevant yet valid OSCEs to be delivered in challenging circumstances.

Take-home messages

Visiting examiners would have been better prepared if forewarned to adapt to cultural differences and examination protocols without compromising standards. Both local and visiting examiners had to adjust their own cultural expectations of the assessments.

O40

High Stakes Clinical Assessment in the United States: The experience of the University of California San Diego, Physician Assessment and Clinical Education (PACE) Program

Norcross, W., Bazzo, D., Boal, P.

The UC San Diego Physician Assessment and Clinical Education (PACE) Program provides clinical competency

assessment and focused remedial education to medical professionals whose ability to practice medicine has been called into question in the United States. Referred physicians are assessed as to their safety and competence to practice medicine. They are assessed in their specialty and practice environment in a variety of contexts based on the ACGME/ABMS Core Competencies. A deep and varied set of evaluation methods provide a comprehensive, "high stakes" assessment leading to a summative report describing physician strengths and weaknesses, and a determination of their ability to safely practice.

Clinical competence and performance tools, including clinical skills assessment, are utilized in the comprehensive evaluation of each participant. PACE has performed over 1400 assessments since 1996. An initial report, through early 2009, was published in *Academic Medicine,* Vol. 84, No. 8 / August 2009. This presentation will provide an updated report on the demographics (gender, age, training location, board certification status, practice type, specialty versus primary care) and performance (percent of participants not meeting minimal standards for safe medical practice (5.7% initially reported)) of participants. A description of the assessment tools utilized, with focus on clinical skills tools in evaluation of the practicing physician, will be illustrated with the rationale for each tool.

The complicated nature of physician evaluation demands a multitude of tools. While there are a number of evaluative modalities currently available, continued development and standardization of reliable instruments, techniques, and procedures for measuring physician competence and performance, including demonstrable linkages to clinical outcomes are needed. Future direction and opportunity for collaborations will be proposed and discussed.

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Sala Veneziana

O41

How does training for the management of an undiagnosed breech presentation affect Remote & Rural Practitioners' perception of their own confidence in dealing with an actual event?

McLeod, S.

Aim

To understand how rural practitioners perceive their confidence in managing undiagnosed breech presentation, & is this perception affected by training undertaken?

Background

Research has been undertaken looking into competence of practitioners providing care to women & babies in remote & rural areas but little has been explored regarding confidence. This project sets out to explore perceived confidences in relation to managing a specific obstetric emergency.

Methods

Qualitative study using semi-structured interviews. Eleven practitioners were interviewed: four Midwives, four General Practitioners & three Scottish Ambulance Service personnel. All worked in remote & rural settings. Topics explored included whether training improved perceived confidence, how long confidence lasted in relation to attending training, how confident they felt transferring knowledge & skills learnt during training into practice, was it the theory or the 'hands on' training that impacted most, did distance from help play a part in perceived confidence, & did they have any comments to make around improvements & future recommendations in ensuring that confidence was gained & sustained?

Findings

All participants provided a positive response to training impacting on their perceived confidence, although how long it lasted did vary. Most were confident in transferring skills and knowledge into practice, responses varied regarding whether it was theory or 'hands on' that impacted most along with the distance from help. Improvements & recommendations again varied from nothing, to an increase in training intervals, & some quite complex suggestions regarding use of technology. All of these gave an indication of the major themes of the project.

Conclusions

Obstetric emergency training must continue, and participants were all too aware that they could be faced with such an emergency. Although current approaches generally have a positive effect on perceived confidences, educators involved in skills maintenance programmes should be mindful of both competence & confidence.

Recommendations

More frequent training opportunities in local environments, introduce Objective, Structured, Clinical Evaluation type assessments during training & look towards innovative ways of improving training opportunities with a view to impacting positively on perceived confidences, Further research specifically aimed at confidences may need to be undertaken.

Key Words

confidence, competence, skills, maintenance, breech presentation, risk, midwife, paramedic, ambulance technician,

General Practitioner.

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O42

A study exploring the effectiveness of self-directed learning of basic life support skills compared to traditional methods amongst student healthcare professionals

Godson, NR., Oldroyd, C., Day, A.

Proficiency in resuscitation skills is an area of education that has attracted interest in recent years, with cardiopulmonary resuscitation training being a mandatory component of all pre-registration healthcare courses.

Due to the high number of students, a significant number of teaching hours are required to deliver this training. Non-traditional teaching methods may provide a more efficient use of resources, and previous research has reported improved skill acquisition and retention using self-directed learning strategies. Einspruch et al, (2007) demonstrated that video self-instruction can produce short-term skill performance, but questioned whether there was comparable skill retention, whilst Jones et al (2007) found there were comparable results for all measured skill variables except for compressions, which was less effective than in the control group.

This research study aims to combine visual, theoretical and practical components to provide a self-contained educational resource which students can access at a time convenient to themselves and no restriction on the time that can be spent practising the skill. The randomised controlled trial will test the hypothesis that healthcare students undertaking self-directed learning of basic life using an e-learning package and a manikin will attain levels of skill acquisition and retention superior to those taught in traditional small group face-to-face classes.

Using a corrected Chi-squared test it is estimated that a total of 160 subjects will be required to detect the primary outcome measure of a between-groups difference of 22% in the mean proportion of chest compressions delivered correctly with a power of 85% and an alpha of 0.05. Participants' skill acquisition will be assessed within four weeks of completion of training during a five-minute standardised cardiac arrest scenario, (Whitfield et al 2003). Secondary outcome measures will include pre- and post-training comparisons of between-group and within-group changes in the quality of airway, ventilation, and compression interventions, repeated after six months to assess skill retention. The study is supported by the resuscitation council UK.

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O43

'2013: A learning space odyssey'

Gray, J., Hogan, R., Kelly, M., Raymond, J.

Outline/Background

As the move to online learning is gaining momentum with the growth of Massive Open Online Courses (MOOCs), there is a pressing need to focus on the learning environment for students who attend on campus sessions, in particular, those students who are required to develop essential clinical skills. A qualitative research project was undertaken to gain an insight into nursing and midwifery students' perception of their preferred learning environment for the development of clinical skills, and to identify those learning space design concepts that encourage the active engagement of the student.

Methods

The project had several phases including focus groups, interviews and a survey. Data were gathered from students, academic staff, and laboratory technicians using a range of methods including photography and interviews.

Literature

Evidence suggests that today's students tend to place great value on connecting with others and want their learning experiences to replicate these values (Van Note Chism, 2006). These students therefore favour active, participatory, experiential learning, much the same learning style they exhibit in their personal lives (Baird & Fisher, 2005). Space can have a significant impact on teaching and learning. The influence of "built pedagogy", or the ability of space to define how students are taught, is very powerful (Oblinger, 2006).

Results

Students identified the need to be actively involved in their learning, to have the space to 'see and do' and to learn in realistic settings. Data from academic staff and laboratory technicians identified a need to re-think how we delivery content to encourage active student engagement in these learning spaces.

Conclusions

The simulation laboratory setting has the potential to be a powerful and engaging learning environment for students. If however this learning space does not allow the active engagement of all students, key learning opportunities are lost. In order to maintain engagement of students it is imperative that we are innovative in our use of learning spaces.

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O44

"Using Music and Dance to enhance student learning of the Musculoskeletal GALS (Gait, Arms, Legs and Spine) screen"

Wallace, D., Johnstone, D., Woolley, T.

Since 2009, the Clinical Skills Unit (CSU) in the School of Medicine and Dentistry (SMD) at James Cook University (JCU), Australia has been teaching the Gait Arms Legs Spine (GALS) screen as part of the examination of the musculoskeletal system. GALS assesses range of motion in the major joints of the body.

Between 2009 and 2011, GALS was taught using a video demonstration followed by students performing this skill on peers and on simulated volunteer patients. With this strategy, 10.5% of the students required reassessment on the GALS screen due to lack of competence.

As memory can be enhanced with music and dance (Brewer, 1995), a video clip was produced by Year 2 students choreographing the GALS screen movements to a popular song, which was added to the GALS workshop in 2012. This video clip is shown twice to the students, and made accessible on JCU's online teaching and learning resource 'LearnJCU'.

A comparison of 2012 versus 2009-2011 student assessment data will show if the addition of the music video has significantly reduced the number of students requiring reassessment in 2012. A post workshop questionnaire (2012 versus 2011) using Keepad technology will also compare student's self-reported level of confidence.

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Sala Toscana

O45

Preparing first year students for phlebotomy on real patients – evaluation of a pilot project

Tincknell, L., Horton, D.

Background

At SGUL first year graduate students learn phlebotomy by watching a teaching skills video followed by supervised practice on a manikin arm. Students reported feeling unprepared for the transition to taking blood on real patients. A pilot scheme was designed for further supervised phlebotomy practice on a manikin followed by practice on a fellow student.

Summary of Work

A number of extra voluntary sessions were offered to students. These were evaluated by questionnaires rating their pre and post session confidence. 80 students (62%) completed the questionnaire. The results were analysed using MS Excel and SPSS.

Summary of Results

There was a statistically significant (p<0.001) increase in self-reported student confidence at performing phlebotomy on a real patient after attending. This finding was independent of the number of sessions attended.

Discussion

Retrospective evaluation and self-reporting of confidence may have introduced bias into the results. The number of students not attending one of the voluntary sessions and who completed the questionnaire is small, therefore comparison to a non-intervention group is impossible.

Conclusions

The results from suggest that the pilot sessions were successful in increasing students' confidence at performing phlebotomy on a real patient and making them more prepared for their future clinical attachments.

O46
Evaluating the impact of unannounced hand hygiene signs on the use of antimicrobial hand gel in the Clinical Skills Centre
Wearn, A., Bhoopatkar, H., Nakatsuji, M.
Introduction
Good hand hygiene is a fundamental clinical skills, commonly learnt early in curricula. There are assumptions that hand hygiene practice in the simulated setting will be valued and transfer to the workplace.
Studies to date have all been in the workplace setting and interventions have usually been educational packages; [1,2] impact has been measured through global hand gel use [2], observed use [3] and compliance. [4]
We observed that hand hygiene is not performed adequately in our centre, despite education, modelling by tutors and ready access to hand washing facilities and gel.
The impact of education or trigger material in a controlled learning environment has not been evaluated. This study takes a human factors approach, modifying the environment with unannounced visual cues.
Aims
- Identify the impact of hand hygiene reminder signs on the use of antimicrobial hand gel
- Reinforce hand hygiene educational messages and assist in developing transferrable habits
Method
- MBChB, Year 2, semester 2 (n=240)
- Practical examination skills learning sessions, Clinical Skills Centre
- Single blind, cluster randomised controlled trial. Nine clinical skills groups were randomly assigned to intervention or control.
- Intervention - A5 laminated signs above work spaces (image plus "Please use antimicrobial hand gel").
- Data - all hand gel bottles were weighed and recorded at start and end of sessions.
- Outcomes – use of hand gel during sessions
- Apart from signage, all environmental and learning processes were equivalent. Students were blinded and naïve to the study; they will be sent a debriefing sheet at completion of data collection (ethics committee approved).
Results
- Data collection in process; complete by mid-October. Mean use of hand gel by group and comparative statistics will be presented.
Discussion/Conclusions
- Do others recognise the same issues?
- Discuss our findings
- Share other interventions
- Consider issues of skills transfers
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O47
Novice airway management utilizing a blended learning approach (a work in progress) examining the transfer of skills into clinical setting
Whereat, S. (supervisors - Mclean, A., Hendry, G.**)**
Medical education based on a cognitive perspective misses the impact of the complex workplace , where learning is largely context linked (1) thus Socio-cultural approach better describes this learning. While a variation of educational methods are used currently, a better understanding of how students transfer learning into clinical practice in the complex setting is required to optimise their use.
Many skills taught during undergraduate years are not able to be replicated when most required in the workplace. Airway management is one key skill area identified as expected knowledge(2). Yet the literature indicates that junior doctors are not able to do this well (3) (4). 85% of junior doctors indicated they were confident (3) in maintaining an adequate patient airway, however only 40% ventilated effectively and 45% used suitable additional devices where required.
This study uses mixed methods looking at theory, clinical application in the anaesthetic room and student perspective. The core airway competencies of students in the clinical setting will be compared following the current ad hoc education and an integrated package with online interactive component and simulation training.

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O48

Theorisation of conceptual interplay between simulation design and Communities of Practice
Guinea, S.

Purpose of the Study

This PhD research project employed case study methodology to explore the interplay between the social constructivist learning theory Communities of Practice and immersive simulation design in the context of undergraduate nursing education.

Background

International nursing students, particularly those form culturally and linguistically diverse backgrounds experience significant stress and confusion in relation to identity, purpose and expectations of being a nursing student during the clinical practicum (Brown, 2005). This research project set out to theorise about the ways in which immersive simulations informed by the pivotal concepts of Lave & Wenger's (1991) Communities of Practice (CoP) may facilitate international nursing student's understanding of the relationship between clinical skills development and sociocultural practice as preparation for the initial clinical practicum.

Methods

This qualitative research project was conducted in three phases at an Australian university school of nursing; Phase One comprised of a literature review and focus group to inform the simulation design; Phase Two employed direct observation through video recording of each simulation and the post-simulation debrief; and Phase Three consisted of participant interviews at the completion of the initial clinical practicum.

All captured data was transcribed verbatim and was analysed via thematic content analysis as proposed by Miles and Huberman (1994).

Results

Preliminary analysis suggests that the exploration of the interplay between CoP and simulation design offers valuable insights into the existing practice of designing simulation-based learning. Of particular interest is the capacity to inform simulation design with an established learning theory; and the potential to foster an identity of a student nurse through a carefully developed simulation program supported by an appropriate learning theory. Further results including the implications for curriculum development will be presented and discussed at the conference.

Conclusion

This study will inform the simulation literature, specifically by contributing to the critically under-researched area of learning theory informing simulation design (Kaakinen & Arwood, 2009; Parker & Myrick, 2010). Furthermore, this research demonstrates a unique application of simulation-based learning to facilitate an understanding of nursing as a sociocultural practice through participatory approaches to learning and teaching.

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O49

Educational Equality on the Equator: an introduction to clinical learning course for 2ⁿᵈ year
Surgenor, MA., Dickson, J., Rawcliffe, J., Woods, L., Lees, NA., Byrne, GJ.

Background

Traditionally, MBChB students at Gulu University are not exposed to clinical learning prior to clinical placement in third year. There are between 56-60 students enrolled in the programme annually, Ugandan statistical evidence demonstrates that the health of medical students is at risk due to unsafe clinical practice (one in ten students

per cohort are exposed to needle stick injury/body fluid spillage) and all students have limited training in infection prevention control which has an impact on the health of the future medical providers and raises issues regarding patient safety. This paper aims to demonstrate that educational and training intervention prior to clinical practice has an impact on the skills and ability of the medical students, which in turn has a positive impact on patient safety.

Summary

In June 2011 and 2012 a team from the UK visited Gulu to deliver a 2-week Introduction to Clinical Learning (ICL) course to the 2nd year medical students preparing to enter their clinical years. The group delivered sessions on practical procedures, clinical examination and communication skills. This ICL course was adapted for Uganda from the Manchester Course. These sessions were a series of lectures, followed by practical demonstrations, workshops and student practice. All equipment for the programmes was brought from the UK, e.g. vital sign monitoring, vene-puncture arms, infection control equip. An Objective Structured Clinical Examination (OSCE) assessed students following the course in 2011 and in 2012 by a Peer Review OSCE both assessments were based on the ICL content. Students and faculty were given the opportunity to evaluate the course by questionnaire, and three months post course by a further questionnaire, focus groups and interviews.

Summary of results

Initial indications demonstrated the students perceived the course to be beneficial. Follow-up focus interviews and questionnaire have been completed whilst students were on clinical placement to ascertain how useful the skills taught were in practice. The evaluation has indicated that the students were more confident in approaching the patients and carrying out examination and procedural skills and their communication with staff, patients and relatives more appropriate than their peers. Full evaluation results of the 2011 and 2012 will be reported at conference.

Conclusion

This was a rewarding experience for all involved and has the potential to stimulate further changes in the way clinical teaching at Gulu University is delivered.

Take home message

Students responded extremely well to these sessions. Gulu University now want to embed this into their core curriculum.

Sala Giochi

O50

Continuous mentoring of medical students provides space for reflection and awareness of one´s own development

Kalén, S1., Ponzer, S1., Seeberger,A2., Kiessling, A3., Silén, C4.

Context

The use of mentoring programmes for medical students has increased during recent years. Mentoring programmes of large scale require extensive resources. This study aims to increase the understanding of the meaning of mentorship for students´ professional development. The context of this study was a combined group and one-to-one mentoring programme. Small groups of students met their mentor once a semester during their education of 5.5 years.

Method

A qualitative approach with individual semi structured interviews was chosen to investigate the meaning of mentorship. To get breadth in data a purposeful and maximum variation sampling strategy was used[1]. Participants in the study were sixteen medical students in different semesters. An interpretive, directed approach to latent content analysis[2, 3] was performed, based on our earlier findings[4].

Result

Five themes emerged: Facilitation by the mentor, Space for something else, A relationship with a physician beneath the professional surface, Awareness of one´s own development and Learning with and from peers. The mentorship created a space where one could talk about 'the other things'. The relationship with the mentor was more personal than relations to teachers or supervisors. During the group sessions the students could reflect and learn in interaction with others. Recurrent reflection led to awareness of one's own development.

Conclusion

Group and individual mentoring contribute to space for reflection in different ways and cannot be replaced by each other. A mentoring relationship can be established on a personal level without frequent meetings. Continuity in mentorship helps students to discover their own development and help them to reflect on their own professional development. This work provides faculties and educators knowledge about the meaning of mentorship for medical students´ development, valuable knowledge for developing meaningful mentoring programmes in medical education in the future.

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O51
Is peer tutoring a win / win situation?
Watt, S., Sharp, A., Howson, F-J.
Background
Peer tutoring is a method widely adopted in medical and nursing education. Weyrich et al (2009) found it to be effective for teaching technical skills in a simulated setting however little evidence is available in relation to its effectiveness in teaching basic nursing skills in a skills laboratory.
Research Aim
To explore whether peer tutoring is mutually beneficial to undergraduate nurses.
Research Questions
Does peer tutoring influence confidence levels in:
year 1 undergraduate student nurses' clinical skills ability?
year 3 undergraduate student nurses' teaching ability in relation to clinical skills?
Method
A pilot study explored the self-rated confidence levels of year 3 student nurses recruited as peer tutors to teach year 1 students three clinical skills (bed making, personal care and feeding). (All three skills were taught in one day). The tutors attended a preparation session before tutoring their peers. Year 1 student nurses were recruited as peer tutees. Data were collected from the peer tutors at 3 time points by means of a self-administered questionnaire (pre peer tutoring preparation, post peer tutoring preparation and post peer tutoring). The tutees completed a questionnaire before and after having peer tutoring. The data were subject to statistical analysis using analysis of variance (ANOVA).
Results
Confidence levels of both the peer tutors (n=6) and tutees (n=21) increased significantly when they participated in peer tutoring.
Conclusion
Peer tutoring seems to be beneficial to both those giving and receiving it in relation to enhanced confidence levels in teaching and performing clinical skills.
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O52
Changes in attitudes to professionalism among first year graduate entry medical students
at a UK medical school
Frain, A., Conroy, S., Frain, J.
Aim
To detect changes in attitude to professionalism lapses among graduate entry medical students during the first year at medical school using a validated questionnaire.
Background
Health professionals in training are proto-professionals [1]. The General Medical Council publishes guidance to medical students on how to develop professional attitudes [2]. Professionalism may actually be eroded during training particularly during the clinical years [3]. A study in the United States suggests this erosion of values may actually begin during the first six months at medical school despite professionalism teaching [4]. This study is set, as in the United States, amongst pre-clinical graduate entry medical students. In the American study graduate entry students came wholly from science backgrounds whilst in this British medical school, students are selected from both arts and science backgrounds.
Methodology
At the beginning of the course, students completed a questionnaire on attitudes towards professionalism [4]. Over the following six months workshops, one during each basic sciences module, were held on the following areas:
1. Professionalism lapses?
2. Burnout
3. Confidentiality including social networking
4. 'Heartsink' patients
5. 'First, do no harm'
At the end of the students first six months in school, the same questionnaire was readministered to the students. The results of both questionnaires were then analysed and the results compared. Student feedback on each of the workshops was collated at the end of each module. This information was used to develop the workshops and resources for the course.
Results and Discussion
Results of the questionnaires and student feedback will be presented and discussed. We will outline areas for further development and research in a graduate entry setting.

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O53
Clinical Learning in General Practice: A study of clinical exposure during final year placements
Bartlett, MH., Gay, SP., McKinley, RK
Background
At Keele, final year students spend 15 weeks in general practice, during which it is expected that each will consult with at least 375 patients. The placement is a clinical assistantship which aims to prepare students for practice. The case mix to which students are exposed has implications for their learning of clinical skills. There is limited evidence about the case mix to which students are exposed in general practice though there have been attempts to define what it should be[1,2,3].
Aims
- To determine the number of patients with whom students consult
- To describe the mix of cases they see
- To compare the data for all GP placements.

Methods
This is a retrospective study of clinical record entries from students' consultations over a four week period.
Analysis
The coded problems and diagnoses will be collated and compared.
Results
The results will be available at the conference.
Discussion
This data will allow us to describe students' clinical experience on general practice attachments and to determine whether there is comparability between practices. This information is likely to be of interest to other medical schools who place students in general practices where they see a largely unfiltered population of patients.
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O54
Transferring rhetoric to practice
Newton, JM., Jolly, B., Henderson, A.
Background
Optimising learning in the workplace is essential for enhancing the quality of student practice and ultimately its impact on graduates' performance. While learning through simulation is effective for many domains (Cooper & Cant, 2009) important contextual factors in the workplace not only influence students' approach to learning, but through this interaction have reciprocal effects on the existing workforce. How one-on-one learning occurs in the workplace is conceptually challenging due to this complexity. This paper reports preliminary findings from an Australian Research Council Discovery funded study that is developing a theoretical framework for workplace learning in healthcare.
Methods
As a component of a two year project framed in ethnomethodology, one-on-one audio-taped interviews will be undertaken with nurses (n=50) and nursing students (n=50), following a period of field work observations of the participants. Interview transcripts will be thematically analysed using NVivo9.
Results
This is work in progress at the time of abstract submission.
Discussion and Conclusion
In order to attract new and retain existing staff, it is imperative that the healthcare workplace is perceived as a learning culture that embraces and engages in meeting the learning requirements of its staff. The opportunities afforded to students and staff to engage in the workplace directly influences their learning (Egan & Jaye 2009). Certainly, our earlier research has identified key elements in the workplace that augment the acquisition of learning. These aspects

centre on the organisational culture, communication, team work, preparation, and student centredness of the workplace environment (Henderson et al., 2010, Newton et al., 2012). This paper will report on the advancement of our understanding of these aspects, identifying constructs that will inform a new conceptual model of workplace learning in healthcare.

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Studio 1

O55

Monitoring Medical students' clinical reasoning during human patient Simulation (HPS)

Roche, J., Hunter, S., Lovett, S., Mattes, J., Symonds, I.

There is a growing interest in work integrated learning (WIL) as a means of enhancing and improving student experience and work readiness. A competent medical graduate should possess the integrative ability to think, feel, and act like a physician [2] to manage ambiguous problems, tolerate uncertainty, and make decisions with limited information [4]As a part of a larger project to measure work readiness of near or newly graduate medical students, 4th year medical students' clinical reasoning (CR) was evaluated during HPS.

Realistic clinical scenarios were developed for the laboratory simulation experiences using authentic but de-identified patient data. All learning resources used were created by clinical and academic experts.

Several groups of 6-8 medical students (n=40) attended a day of HPS. During this day each student participated in one HPS scenario and observed the other students simulation experience. All students participated in debrief sessions after each simulation.

During each simulation the medical students' clinical reasoning was monitored using an instrument which was designed for the study: the clinical reasoning rubric. The rubric built on the work by Lasater (2007), and Dreyfus and Dreyfus (1986), and included the Clinical Reasoning Cycle.

In this presentation rubric and findings will be discussed.

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O56

Monitoring the development of clincial reasoning by nursing students while on clinical placement

Hunter, S., Roche, J., Arthur, C., Noble, D.

Clinical reasoning (CR) is "a context–dependent way of thinking…in practice to guide practice actions" (Higgs & Jones, 2008). Graduate nurses may have good content knowledge and adequate clinical psychomotor skills however they frequently lack the clinical reasoning skills to deliver safe, effective care (del Bueno, 2005). Contemporary educational approaches do not always develop nursing students' CR.

"Clinical reasoning skills are an expected component of expert and competent practice" (Banning, 2008, p. 177). Hence, teaching and monitoring of the development of the nurses' clinical reasoning in the undergraduate program is essential.

Previous studies have explored CR ability of undergraduate student nurses at the classroom and laboratory level. Research has explored clinical reasoning of graduate nurses (Carr, 2004). However, there is very little published about nursing students' clinical reasoning during their clinical placements.

Ten clinical educators were interviewed to understand how they monitored the development of student nurses' CR on clinical placement. This presentation will discuss the findings from the interviews. This study is the first stage of a project which aims to develop a valid system of monitoring CR of nursing students in the clinical practice.

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O57

Educator's perceptions of factors that impact on teaching and learning clinical skills

Heaton, L.

Nursing students learn clinical skills on a daily basis with a variety of methods utilised to assist in them understanding practice. Information for this presentation is derived from a study involving nursing educators and examines various methods and factors they believe can affect not only the delivery of education, but the performance of students. Beginner students are often taught in a behaviourist manner where they can concentrate on a procedure without needing to give much thought into the effect that the procedure might have on the patient. Once students feel more confident in performing a skill, a more immersive approach can be considered where a simulated situation reflects the real world and clinical reasoning is required. If the fidelity of the situation is too high for the beginner, the experience can be detrimental causing an inability to learn and loss of confidence (Noble 2002).

This presentation will report progress to date in a qualitative study exploring various approaches used in clinical skill laboratories and simulation in nursing education. The aim of this research is to investigate the different methods used to assist students in learning nursing practice and will be of interest to people in involved in the delivery of curricula in educational and clinical environments.

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O58

A randomised study of students as peer examiners in long case clinical examinations

Burgess, A., Black, K., Roberts, C., Mellis, C.

Background

In stage 3 of the medical program, Sydney Medical School, students are required to sit a formative long case examination. Peer students act as co-examiners, together with an academic examiner.

Aims

To investigate the efficacy of students as examiners based on
- Student perception of competence in their own long case examinations.
- Agreement between student and academic examiner marking.

Methods

Over a 3 year period (2010, 2011, 2012), students (N=197) were randomly allocated to co-examine their peers.

Data collection
- Questionnaires were distributed to all student co-examiners (N=197).
- All student co-examiners (N=197) were invited to attend a focus groups.
- Marking sheets of academic and student examiners were compared to assess agreement.

Results
- Questionnaire response rate 93% (183/197).
- Eight focus groups were held, with 27% (53/197) attendance.
- Marking sheets: 96% (189/197) were analysed.
- Acting as a student co-examiner was useful in preparing students for their own long case examinations
- Students had difficulty assessing and giving feedback to peers.
- Student examiners consistently marked higher than academics across all marking domains, however, these differences were not statistically significant.

Conclusions
- Acting as a peer examiner is a useful learning activity for students.
- Given the level of agreement between student examiners and academic examiners, students can act as peer examiners in formative long cases.
- Students need further training in how to provide feedback.

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O59

Development of a web based patient deterioration simulation training program to enhance competence

Porter, J.

Aims

This paper will describe the protocol for a project which developed an on-line web based training simulation package to improve competence in managing deteriorating patients.

Background

There are, international, concerns regarding the management of deteriorating patients with issues around the failure to recognise when a patient's condition is deteriorating. The primary response to these issues has been the development of medical emergency teams with little focus on the education of primary first responders and recognition of the deteriorating patient condition 1. There remains, a need to ensure that nurses are given an opportunity to practice advanced technical skills, patient assessment and critical analysis in a safe learning environment.

Design

A mixed methods triangulated convergent design incorporating a comprehensive literature search, team based simulation scenarios at three universities and the development of an on-line interactive web based training resource.

Methods

The ALTC funded project was divided into four unique phases. Phase 1, a comprehensive literature search was conducted. Phase 2 examined student nurse teams' ability to manage deteriorating patients. Using live trained actors, a group of 3 student nurse were asked to manage three separate simulation scenarios (Chest pain, Respiratory distress and Hypovolaemic shock) each increased in complexity and was video recorded. Pre and post knowledge was tested using an 11 question MCQ test. Teamwork and leadership was assessed using the TEAM tool, with situation awareness and patient management recorded and later used in the debriefing session following the scenarios. The findings informed the next phase of the project with phase 3 incorporating the development of an on-line web based educational training package, which includes interactive scenarios. Phase 4, the evaluation of the on-line web based training resources.

Conclusion

Phase 1 outcomes informed the development of the on-line scenarios which were adapted following student review. Full resources including the interactive scenarios will be made available at this presentation.

Keywords

Education, nursing, patient deterioration, simulation.

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Breakout 2

O60

Trust-in-(inter)action within bedside teaching encounters: A video-ethnographic study

Elsey, C., Grant, AJ., Monrouxe, LV.

Presented by Monrouxe, LV.

Background

The purpose of this research is to investigate how the presence of medical students within medical encounter fundamentally involves a reconfiguration of the interactional organisation of the consultation. This is due to the dual purpose of such bedside teaching encounters (BTEs) in which patient care and student learning are both central.

A plethora of research within social sciences has examined nuances within doctor-patient interaction[1]; however, little is known about doctor-patient-student interactions. Much is known about doctors', patients' and students' *views*[2] about participating within bedside teaching encounters (BTEs) yet little is understood about what happens *interactionally* when medical students are present[3].

Method

A video-ethnographic method examined 43 video-recorded BTEs (totaling 937 minutes). Participants included 17 clinicians, 30 Students and 43 patients across general surgery and medicine, GP, paediatrics and geriatric clinical specialties.

Research results

Trust was explored across different phases[4] of BTEs, including openings, history-taking, and closings, to demonstrate its character and prevalence throughout consultations. Analysing opening phases of BTEs identified familiarisation sequences and recaps as methods of establishing relationships and common understandings. The history-taking phase explores how patients are held accountable for withholding vital information and how previously unmentioned issues are inserted into patient-student talk. We reveal how the presence of medical students within consultations facilitates and promotes patient questions during closings, encouraging patient understanding.

Conclusions

This work is important as it focuses upon the impact that medical students have upon the organisation and running of consultations and the knock-on effect this has on patient participation and understanding. Medical students act as 'trouble-makers' within medical encounters, as patients have to closely monitor the ongoing interaction in order to coordinate *when* and *how* they contribute across different BTE phases. We argue that trust extends beyond trust in a member of the medical profession but it includes the interactional process itself.

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O61

Evaluating the impact of the Acute Illness Management (AIM) course in a resource poor setting for 5th year medical students

Slattery, H., Surgenor, M., Byrne, G.

Background

Established in 2007, the Gulu Man Link, UK is an educational partnership formed between University Hospital of South Manchester and the new Faculty of Medicine in Gulu, Northern Uganda. The Ugandan students requested an intervention to help them to develop practical clinical skills and confidence in managing the deteriorating patient. The AIM course is an established programme that was designed to improve management of such patients.

Our hypothesis was could a course intended for a developed country be successfully delivered and achieve similar outcomes in a resource poor environment?

Method

Experienced faculty delivered the AIM course to the full cohort of 5th year Gulu medical students in October 2011 and February 2012 following a successful pilot.

Results

Post course evaluations revealed a perceived increase in confidence and statistically significant increases in knowledge were demonstrated. Similar themes from the evaluations were identified in both a UK and Ugandan cohort of medical students. There is also anecdotal evidence of the medical students using the knowledge and skills learnt on the course in their practice.

Conclusion

This would suggest that the course aims were applicable and relevant to a developing country.

Further studies will be required to assess the longer term impact on patient care.

O62

Missed opportunities for effective patient education and counseling: what clinic visits with unannounced standardized patients can tell

Gillespie, C., Schoenthaler, A., Yeboah, N., Burgess, A., Hanley, K., Stevens, D., Wallach, A., Zabar, S.

Purpose

The goal of this study was to explore the quality of patient education and counseling skills through in-depth qualitative analysis of resident physician interactions with Unannounced Standardized Patients – trained actors integrated into practice unbeknownst to the physician.

Methods

Two clinical cases, one involving medication education and the other a routine visit requiring education about a common condition, were portrayed by highly trained USPs who were integrated as new patients into two busy, urban primary care clinics and seen by Internal Medicine Residents. USPs completed a comprehensive checklist that assessed communication skills, including whether assessed understanding, provided clear explanations, and used "teachback" (ASK-TELL-ASK model), and used a concealed recorder to audiotape visits. 18/37 encounters were clearly audible and comprise the analysis sample (8 medication education; 10 routine visit). Assessed case portrayal was consistent. Tapes were transcribed and entered into Atlas TI, a qualitative analysis software program, to facilitate coding and analysis. Themes were identified and coded by listening to the audio while reading the transcripts.

Results

Data validated core aspects of checklist assessments, i.e., that the clarity of explanations and degree of summarizing varied, and that residents rarely evaluated understanding. However, analysis also revealed critical moments (missed opportunities) when patients could be more fully educated and engaged. These included: failing to orient the patient (mean=4.2/visit); failing to engage the patient in behavior change (mean=5.1/visit); failing to engage the patient in the plan (mean=2.9/visit); and 4) failure to help the patient navigate the system to obtain recommended services (mean=1.9/visit).

Conclusions
While checklists capture critical positive aspects of the patient-physician encounter, our data suggest that missed opportunities to educate and activate patients should also be assessed. These missed opportunities may be essential to achieving intended outcomes of care and therefore merit further study as important targets for education and training.

O63
Assessing Clinical Skills - Developing and Using a Clinical Skills Identification Profile Tool: SIP Tool
Ford, K.
Patient safety is compromised if clinical staff do not have the appropriate skills or competency to carry the required care. The development of a skills identification tool was stimulated by the lack of a user friendly tool to ask;
What clinical skills staff have and are required to have to deliver patient care
How these skills have been acquired
Following extensive review of existing tools the SIP was developed by the Strategic Clinical Skills and Simulation Advisors and validated by organisational clinical governance processes and the regional clinical skills and simulation executive board.
The tool is an easy to use method of collecting data from individuals, teams, departments and organisations to answer the fundamental questions of how staff have acquired their clinical procedural skills. This tool has been successfully used in a range of settings across a large geographical region. The SIP has been used to support clinical skills and simulation training in Mental Health, General Practice, community services and community hospitals. The findings have shown that many skills are acquired at the bedside and through informal and often ad hoc methods with no competency assessment attached to the training with the potential of putting patient safety at risk. Once the profile has been completed the organisation can then access, develop and deliver appropriate clinical skills and simulation training to ensure that patients receive quality care delivered by the right staff that have the right skills.
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Breakout 1
O64
The experience, perceptions and attitudes of healthcare students undertaking an inter-professional ward simulation: A pilot study
Roberts, F., Addison, B., Goodhand, K., Lennie, S., Wood, C.
Introduction
The use of simulation focusing on uni-professional skills based tasks and activities is well documented in medical and nursing education. The small evidence base relating to the allied health professions focuses on therapist/patient communication skills, practical skill development and understanding of pathologies but not on wider team activities. Ker et al (2003) undertook an inter-professional ward simulation involving only nursing and medical students but focused on whether specific skills were completed rather than team working aspects. McKimm et al (2010) involved qualified nurses, doctors, speech and language therapists, pharmacists and dieticians. The facilitators felt that there could have been greater collaborative working, an essential area considering that all health professionals must be able to work in partnership (HPC 2007).
Objective
To investigate the experiences, attitudes and perceptions of different pre-registration health professions students undertaking an inter-professional ward simulation and to find out if there is any impact from undertaking the activity on the student's future practice on clinical placement.
Design
Mixed method pilot study
Participants
Diagnostic Radiography, Dietetics, Nursing, Occupational Therapy, Pharmacy and Physiotherapy students from the Robert Gordon University, Aberdeen, UK
Intervention
An inter-disciplinary ward simulation involving across a range of environments used in day to day practice within a hospital environment (ward, X-Ray department, gymnasium, kitchen). The project is scheduled for Oct-Dec 2012. To ascertain experiences, attitudes and perceptions of the simulated ward activity focus groups will be undertaken. The Readiness for Interprofessional Learning Scale (RIPLS) will be completed and should identify any changes to the student's perception of the importance of interprofessional learning. Individual semi-structured interviews with a random sample of participants from the various student groups after their next practice placement will enable us to evaluate the perceived impact of the activity on their practice.

Outcome Measures

RIPLS questionnaire, focus group and semi-structure interviews.

Reference List

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O65

The use of simulation in promoting multi-disciplinary team working within the Endoscopy Unit focusing on patient safety and patient centredness

Dimmock, V., Wood, E.

The Joint Advisory Group (JAG) oversee all Endoscopy training within the United Kingdom. No JAG courses focus on training in non technical skills i.e. on real time patient scenarios and their management or that involve full immersion simulation and multi-professional participation alongside screen based simulation.

An innovative one day course was developed following patient journeys from initial referral to the Endoscopy Unit, undergoing an endoscopy, complications and communication with relatives. Participants included the Endoscopy team and users.

Areas covered: application of knowledge, endoscopic complications, communication skills, multi-disciplinary team working, medical leadership competencies, clinical decision making, dilemmas faced when acting as an advocate and implications for patients', their families and healthcare professionals when breaking bad news and/or making difficult decisions.

Questionnaire evaluation revealed that 9/9 participants agreed the course was realistic and relevant to training needs thus promoting the transfer of learning. Comment: "I have done quite a lot of simulation, but what worked this out as distinctive and in many ways better was: mix of doctor grades and nurses, mix of skill sets taught (acute medicine, endoscopy, communications, team work) [and] particularly good feedback".

Internal feedback bias is a limitation and roll out to external participants in planned for 2013.

O66

From plastic model to real breasts: Integrating clinical and communication skills in intimateexamination

Joekes K., Tincknell, L.

Background

The transfer of newly acquired skills from classroom to clinic is challenging for undergraduate medical students[1], particularly when learning intimate examinations[2]. This newly designed teaching session integrates communication and clinical skills with reference to breast examination, involving real women.

Summary of work

330 pre-clinical students attended small group teaching (6-7 students, 90 minutes), facilitated jointly by clinical and communication skills tutors. Simulated patients were women without breast pathology. Groups worked through four scenarios focusing on both communication and examination skills. Students completed an evaluation form comprising 5-point Likert ratings and free-text.

Summary of results

Results (n=330) show a statistically significant increase in self-reported confidence, irrespective of whether they examined or observed (p<0.001). 75% of students highly valued the integration of skills and the realistic nature of the session. Complete results including qualitative themes will be presented.

Discussion

Although the session is substantially more expensive, students are introduced to transferable skills and report increased levels of confidence in both their clinical and communication skills following the session.

Conclusions

An expensive and labour intensive session but effective and enjoyable with wide application of its learning points beyond breast examination. The use of real women and true skills integration makes a real difference in transition from skills lab learning to clinical learning.

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O67

Interprofessional Education and Medication Safety: Recent graduates experience and future direction

Hilmi, S., Gillman, L., Kidd, H., Stewart-Wynne, E.

Background

Medication safety is a global concern with inter-professional education (IPE) recognised as vital for preparing nursing, pharmacy and medical students for their roles in the medication team. The purpose of this study was to explore attitudes to, experiences of, and suggestions for achieving IPE in health programs, in a group of recent nursing, pharmacy and medical graduates.

Methods

Five inter-professional focus groups were conducted involving nursing, pharmacy and medicine graduates (n=25), working in a tertiary metropolitan hospital with up to two years postgraduate experience. Transcribed data was subject to thematic content analysis by two independent reviewers.

Results

Preliminary analysis identified four key themes (1) ability to work in an interprofessional team (2) authenticity of undergraduate learning (3) communication (4) inter-professional socialisation. A number of learning and teaching strategies to integrate IPE in health programs were identified.

Conclusions

Changes in undergraduate curriculum are required to support healthcare practitioners understanding each others roles and collaborating to achieve safe medication practice. Institutions can assist new practitioners to integrate into the interprofessional team by facilitating their socialisation in the work place. A shift in the approach to preparing health professionals is needed to enable them to work together to provide safe, quality patient care.

Session 13 – Keynote Plenary

Salone

KA05

Confusing Patients Less: Promoting Health Literacy in Clinical Practice

Professor Michael Wolf

The problem of low health literacy has been the subject of multiple national and international reports, and the U.S. Department of Health and Human Services, Institute of Medicine, and the World Health Organization promote and exhort improving health literacy as a public health goal. Proposals have even been made recently to recognize low health literacy as a risk factor warranting clinical screening. In lieu of this momentum, controversy remains as to the definition of health literacy - whether it is an individual risk factor or asset, a reflection on healthcare providers' skills and health systems' accessibility, community engagement, or all of these. Clearly, the term has sparked unprecedented interest around the objective of simplifying healthcare and helping individuals take responsibility for their personal health. In this presentation, the field of health literacy will be reviewed in the context of health communication, patient safety, healthcare quality and equity. Specific strategies for improving clinician communication skills, enhancing the navigability of health systems, and engaging communities to assume public health roles will also be reviewed. These reflect education, behavioral and human factors interventions to help patients and families gain the appropriate background knowledge and skills for promoting health, while reducing the cognitive demands of health systems through unnecessarily complex health tasks. Specific attention will be paid to new and emerging health and consumer technologies, as well as case examples in medication adherence and the management of patients with multi-morbidity.

Salone
O68
What's working: Improving medical students sensitive examination clinical skills - results of a Clinical Teaching Associate program (O)
Sefton, N., Tuner, R., Zimitat, C.
Background
The importance of clinical skills education for medical students is well established. Sensitive examinations are recognized as difficult to acquire. Many medical schools are developing programs to support medical education with Teaching Associates, also known as Clinical Teaching Associates (CTA's) - men and women from the community specifically trained to teach students appropriate sensitive examination.
Summary of work
The University of Tasmania CTA program has evolved to incorporate a program focused at male sensitive examination to complement the successful woman's program. The current results demonstrate improved student confidence and competencies.
Summary of findings
In 2011/12, 130 third year medical students progressed through the program. Evaluation revealed 98% believed learning sensitive examination was very important and is best delivered through a CTA program. Students also commented on learning examinations as highly valuable in improving their understanding of health issues.
Conclusion
Clinical skills are fundamental to acquire in undergraduate education with many medical schools developing programs specifically targeted at teaching sensitive examinations. CTA's are ideal to teach and assess sensitive examination, with increasing recognition to the benefits in supporting medical education in a competitive challenging healthcare environment.

O69
Peer-assisted learning in first year nursing: A four-year longitudinal study
Williams, B., McKenna, L., French, J., McIntyre, M.
Background
The Australian Nursing and Midwifery Council has identified that the ability to teach is a core competency for nurses (1). Indeed, continual teaching and learning is essential in such a fast moving and high impact field. As such, peer-assisted learning (PAL) should be regarded as a useful tool to enhance the experience of undergraduate nursing students in teaching, increasing their confidence and competency both as learners and teachers. Therefore this project seeks to explore first year students' experiences of being taught and assessed by senior students at a large Australian university.
Methods
A 4-year longitudinal study (2009-2012) was undertaken involving first year nursing students. Students' attitudes and perceptions towards PAL were obtained with the Clinical Teaching Preference Questionnaire (CTPQ) (10 items). The CTPQ is a self-reporting measure that is valid and reliable, (2) and uses a 5-point Likert scale (1=Strongly Agree and 5=Strongly Disagree) and has two subscales: Peer Supervision (6 items) and Instructor Supervision (4 items). A brief demographic section was also included in the questionnaire.
Findings
There were 590 students who participated in the study of whom n=518 (87%) were female with n=442 (74%) of all students < 22 years of age. Distribution of cohort samples included: 2009 (n=113); 2010 (n=120); 2011 (n=145); 2012 (n=212). Regarding the question 'have you ever had experience of being taught by peers previously?' n=192 (32%) responded yes to this, with n=396 (67%) stating no. At an item-level, students felt 'less apprehensive about performing a skill in the presence of a peer compared with instructor' (M=2.07, SD=1.23), while they were largely undecided whether 'peers are more supportive to me when I am performing a nursing skill than my instructor' (M=2.79, SD=1.24). There was a significant difference between the Peer Supervision subscale (df =3, F = 22.76, p < 0.0001). Post-hoc comparisons found the 2010 cohort (M=17.29, SD=9.65) and 2012 cohort (M=12.16, SD=3.69) were significantly different from the 2009 (M=13.99, SD=4.56) and 2011 cohorts (M=15.27, SD=4.19). There was also a significant difference between the Instructor Supervision subscale (df =3, F = 2.66, p < 0.047). There were no statistical differences between gender and age groups. Also, there was no association between being taught by peers previously and either subscales (r=0.01, p=0.988; r=0.06, p=0.891).
Conclusions
This longitudinal study has provided the nursing profession with important data in its quest of increasing PAL throughout its curricula at Monash University. Overall, first year students were generally comfortable with the PAL approach over the 4 years. This study also provides opportunities to examine if students' attitudes towards PAL change as they progress through their degree and beyond.

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O70
Does intensive revision prior to summative observed structured clinical examinations influence pass rates?
Brown, A., Howatson, G.
Background
OSCEs were derived as an assessment strategy. However, students undertaking OSCEs often underestimate the need to practise their clinical skills, focussing their time on the theoretical component of their programme instead of actively learning skills within a clinical skills learning environment (Blundell and Harrison 2009). It was proposed that student learning could be enhanced by using the OSCE format in the facilitated learning session where students were given objective clinical feedback. This may enable learning from the assessment and from the opportunity to improve practice (Creed 2012).
An innovative, intensive revision session was therefore offered on one of two campuses within our School of Nursing and Midwifery. This provided a facilitated opportunity to practice 8 summative OSCE stations. Students on the other campus undertook self-revision OSCE preparation sessions.
Study Aim
To compare two approaches to OSCE preparation in first year undergraduate nurses
Method
A mixed methodology approach using quantitative data from exam pass rates and qualitative data from module evaluation of 310 students split across two campuses.
Findings
Early results suggest the use of intensive facilitated preparation may significantly improve pass rates for students undertaking OCSEs.
Conclusion
Facilitated OSCE preparation sessions should be offered as standard across both campuses.
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O71
Is near peer teaching an effective method for teaching undergraduate clinical skills?
Bradbury, M., Harding, V., Hambridge, K., Endacott, R., Jeffery, K., Pettit, S.
Background
Teaching is an integral element of professional practice and a pre requisite of professional registration. The use of peers to conduct teaching of clinical skills was a central component of previous 'apprenticeship' models of nursing education and has re-emerged in recent years ,such that, it is now incorporated into our undergraduate curriculum, where year 3 pre-registration student nurses are required to teach core clinical skills to year 1 students.
Objectives
To explore the students' experience of near-peer teaching and to establish if it better prepares students for their role.
Methods
A pre/ post-test mixed methods approach was used. Modified versions of the Clinical Teaching Preference Questionnaire (CTPQ) (Iwasiw & Goldenberg 1993) and Peer Teaching Experience Questionnaire (PTEQ) (McKenna & French 2009) were completed by year 1 and year 3 students respectively. Students also attended researcher led focus groups.
Results
Year 3 students (n=47) felt more confident ($p \leq .000$) and better able to assess the skills of junior students ($p \leq .001$). They also reported that there should be more curricular opportunities for peer teaching ($p \leq 0.047$). Year 1 students (n=124) enjoyed being taught by the senior students ($p \leq .01$) and felt more confident and able to perform independently ($p \leq .000$). Emergent themes from the focus groups included professional, personal and social benefits for students.
Conclusions
Near peer teaching is an appropriate teaching strategy for delivering clinical skills within the undergraduate nursing programme.
Reference List
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O72

Summative/Formative Clinical Assessment: The University of California San Diego, Physician Assessment and Clinical Education (PACE) Program Phase II participant survey results

Boal, P., Norcross, W., Bazzo, D.

The UC San Diego Physician Assessment and Clinical Education (PACE) Program provides clinical competency assessment and focused remedial education to medical professionals whose ability to practice medicine has been called into question in the United States. Phase II is a five-day, preceptor-based formative and summative assessment of the participant's clinical skills, knowledge and judgment. The participant's clinical skills and knowledge are evaluated while being integrated into the educational activities of the host specialty residency or fellowship program at the UCSD Medical Center. The participant learns new knowledge, skills and techniques from faculty of the UCSD School of Medicine, acquiring methods of fostering and maintaining lifelong learning. PACE participating physicians do not have direct responsibilities for patient care, but are otherwise incorporated into the full spectrum of specialty-specific educational opportunities offered daily in a busy academic health center teaching service.

The teaching environment is supportive, uplifting and enjoyable. Typical teaching opportunities include: outpatient clinics, inpatient ward rounds, Grand Rounds and other conferences, and observation of procedures. Each visiting physician is assigned a faculty mentor to ensure that the objectives of Phase II are met.

Highlights of Phase II include:

- Addressing individual needs and requirements of the physician;
- Creation of an evidence of learning and achievement portfolio;
- Evidence-based medicine project;
- Medical informatics exercise;
- Commitment to Change contract;
- Summary report including final grade;
- 40 hours/ 5 days; 40 CME Category One credits

At the completion of Phase II, participants complete a thirteen question evaluation form documenting among other items, the new knowledge, skills and attitudes obtained, and efficacy of the education. Overall reviews are remarkably positive with the unexpected finding that participant obtained new skills by observation alone. Results will be presented with a discussion of the findings.

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O73

Students' Progressive Mastery of Communication Skills over the First Year of Medical School and Beyond: The NYU Baseline OSCE

Kalet, A., Hanley, K., Adams, J., Yeboah, N., Gillespie, C., Tewksbury, L., Ogilvie, J., Zabar, S.

Purpose

Medical curricula should be designed to recognize students' strengths and weaknesses and be sensitive to patterns of development. Starting in 2009, based on measurement strategies used in the established end-of-clerkship year OSCE, we implemented baseline and end-of-first year OSCEs to better understand students' communication skills development during the first year of medical school and beyond.

Methods

Within two weeks of matriculation, medical students (n=165) participated in a 3-station OSCE, where Standardized Patient (SPs) assessed communication performance (information gathering, relationship development, and education/counseling) (Cronbach's alphas > .82) using a behaviorally-anchored checklist with a 3-point response scale (not done, partly done, well done). Scores calculated as % items well done. At the end of the year students completed another 3-station OSCE. Paired *t*-tests describe change in scores. Changes in individual students' relative communication skills' standing over time is explored using Chi-Square.

Results

Mean baseline scores were: overall communication 57.2% (SD 15.5%); information gathering 62.2% (SD 15.6%); relationship development 61.4% (SD 18.3%); education/counseling 42.9% (SD 20.4%). Mean change from baseline to end of the year: overall communication +10.5% (SD 18.6%, p<.001); information gathering +7.6%, (SD 20.4%, p<.001); education/counseling 27.0%, (SD 22.6%, p<.001); relationship development +3.8% (SD 25.2%, p=.054). While most students' relative standing didn't change over time, many high-scoring students' standing declined slightly and the majority of low-scoring students' standing increased. Results from the end-of-clerkship year OSCE for this cohort will soon be available for presentation.

Conclusions

Medical students' overall communication abilities appear to increase during their first year, especially education and counseling skills, which are a major emphasis of our first year clinical skills curriculum. Aggregate changes however, can mask individual-level changes that are critical for our ability to accurately assess and evaluate mastery of core clinical skills. Implications for individualization of curriculum and remediation will be discussed.

O74

Preparation of peer tutors for clinical skills teaching – what works?

Watt, S., Sharp, A.

Background and Study Aims

Peer tutoring is frequently used in nurse education however there is scant literature about the preparation of the peer tutors. A study was planned using year 3 student nurses as peer tutors to teach basic nursing skills to their year 1 peers. The peer tutors were prepared for their teaching role by academic staff who instructed them on Peyton's four stage approach to teaching skills (Mackway-Jones and Walker, 1999) and how to give effective feedback. The aim of the study was to explore whether the preparation session equipped the student nurse peer tutors with the skills required to teach their peers.

Method

A sequential mixed methods pilot study was used to explore the research aim. Data were initially collected through self-administered questionnaires and observed teaching practice followed by focus group participation.

Results

The confidence levels of the peer tutors (n=6) increased after the preparation session but this did not correlate with the teaching competence observed (i.e. some students had high levels of confidence but their teaching practice was not deemed yet competent). (40 words)

Conclusion

The preparation session incorporating how to effectively teach a nursing skills and how to give feedback went some way to equipping students with the skills they needed. (27 words)

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Sala Veneziana

O75

A national program for simulation education and technical training – The AusSETT program

Nestel, D., Brooks, P., Campher, D., Freeman, K., Greenhill, J., Jolly, B., Owen, H., Rogers, L., Rudd, C., Sprick, C., Sutton, B., Watson, M., Bearman, M.

Presented by Bearman, M.

Background

Simulation-based education (SBE) has seen a dramatic uptake in the last decade. SBE offers learning opportunities that are difficult to access by other educational methods. Competent faculty is seen as key to high quality SBE. A group of Australian universities was commissioned by Health Workforce Australia (HWA) to develop a national training program for simulation educators and technicians/coordinators – the AusSETT program. HWA is responding to a significant national health workforce issue – the need to enhance the quality and scale of SBE.

Summary of work

AusSETT is a train-the-trainer program, which offers two or three days of workshops and online modules designed to take between four and eight hours. AusSETT was offered across all professions in all states. Topics included: core foundations of learning theory; an introduction to diverse simulation modalities; briefing; and, debriefing. A multi-layered evaluation strategy was adopted including end of module evaluations, workshop observer reports and individual interviews with participants.

Summary of results

Three hundred and three participants attended workshops while 127 have completed online modules. Participants still have six weeks (August end) to complete the modules. The content and educational methods have been rated highly with the majority of ratings exceeding the pre-established standard (4.5 of 6). Participants identified strengths (e.g. high quality facilitation, breadth and depth of content) and areas for development (e.g. electronic portfolio, the learning management system.

Conclusions

The AusSETT program is a significant and enduring learning resource. The development of a national training program to support a competent simulation workforce is feasible.

O76
Feedback using mobile phone toward independent study
Pustaka Setiawan, I.
Background
Feedback is usually delivered face to face, in appropriate manner and appropriate time (Dent & Harden, 2005)**,** from instructor to the students during skills training session. But how the instructor gives feedback when the students conduct independent study? Could recording facility of students' mobile phone solve this problem?
Aim
The aim of this study is to develop process of delivering feedback by utilizing mobile phone toward students' independent study.
Methods
This was qualitative study. During independent study, we asked students to record their skill using recording facility within their own mobile phone. The recording file from mobile phone was then burnt to the VCD. We asked peers and instructors to watch the students' performance in VCD as well as to give written feedback which is equipped by structured questions. Survey as to feedback given to students toward both peers (n=49) which is selected randomly and skills lab instructor (n=50) was conducted. After receiving written feedback from both peers and instructors, students who perform in VCD were asked to make written reflection about feedback that is given to them.
Analysis
All written survey data were collected and analyzed qualitatively. Three coders worked independently to conduct open coding to find categories using atlas ti.6 software. Coders met regularly to discuss the finding until agreements achieved.
Result
The study yielded the following results: 1) feedback on skills includes: communication aspect, physical examination and attitude, 2) feedback on quality of recording includes feedback on: video, recording tools, actor and setting, 3) Students' reflection said that the feedback is useful; 4) There are suggestions to improve the recording result
Conclusion
1) Feedback on students' independent study can be delivered by utilizing recording facility in mobile phone, 2) Students said that the feedback is useful, 3) Technical things should be noticed in order to result better quality of recording
Key words
feedback, mobile phone, independent study, video learning, skills laboratory training
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O77
Development of Web-based ECG Interpretation Trainer
Kurniawati, N.
Background
ECG interpretation trainer media is usually embedded in an expensive high tech manikin. These devices usually are not easily accessible for students to practice, therefore unsuitable for medical schools with low budget in developing countries. However, this skill is inevitably important for emergency medicine. The aim of this study is to develop a low-cost, accessible, web-based ECG interpretation trainer media for undergradute medical students in developing country.
Outline of Work
A multimedia ECG interpretation trainer is developed by Skills Laboratory in Faculty of Medicine UGM and uploaded in the e-learning platform to be freely accessed by the students for their independent learning. This web-based training media is completed with automatically generated feedback. Students' log are recorded and stored in database, which can be used later by the skills instructor to give manual personalized feedback. A study to evaluate the multimedia program is on progress.
Result
Preliminary result shows that the skill instructors regarded the web-based multimedia trainer can be used as an adjuvant learning media for student's independent learning. This program has an advantage of assessing students' clinical reasoning in delivering emergency treatment as viewed in the recorded log.
Conclusion
A low cost, web-based multimedia trainer program could be used as learning media to enhance student's skills in ECG interpretation and AED algorithm.

O78

Using an innovative mapping tool to describe student's learning within simulated and clinical practice learning environments

Stirling, K., Dieckmann, P., McNaughton, S.

The use of clinical practice learning environments and simulation activities to enrich undergraduate healthcare education is now commonplace [1] . Understanding the effect that these activities can play in the formation of professional traits and attributes is less well known. This pilot study was undertaken across two campuses (New Zealand and the University of Dundee) to attempt to show the processes that student's undertake in integrating learning from different learning environments.

Clinical practice learning environments may represent an integrative pedagogical approach [2] since they require students to use previously acquired declarative and procedural knowledge and life-skills in complex situations. The behaviours and performance (doing) of students in such situations have frequently been assessed as part of the development of professionalism or higher order skills, but little attention has been given to the internal processes that underpin how clinical students integrate 'doing *with* being' as expressed in their beliefs, values and attitudes.

The use and adaptability of simulation as a learning environment has seen its prominence grow within educational curricula[3]. There is an identifiable need to better understand the reciprocal interaction between the student and the simulated activity as a social practice [4].

A modified form of concept-mapping was used to investigate how clinical students in both simulation and health care practice environments perceived the connections between cognitive, psychomotor and affective learning and their values, beliefs and attitudes. The focus question used for the maps asked students about the connections between these areas, annotating them with details of specific experiences that contributed to the formation of these connections. This presentation outlines provisional results of the first level of analysis, which compares the structures and connections of maps made by students within these two different learning environments.

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O79

It is time to accredit simulated patients

Parle, J., Ross, N., Coffey, F.

Background

Clinical Teaching Associates (CTAs) are human simulators who use themselves (i.e. their bodies and psyches) as an integral part of the teaching and assessing process. Various kinds of CTAs are being used increasingly in clinical education, often without clinical tutors being present, as well as in high stakes assessments.

Context

Four groups have an interest in the competence of CTAs:

(i) patients (since they are at risk, both currently in the clinical situation, and in the future, if students learn inappropriate behaviours which they later exhibit in clinical work)
(ii) students (whose interaction with CTAs ranges from initial learning to high stakes assessment)
(iii) CTAs themselves (since they may wish to evidence their professional competence to employers)
(iv) organisations utilising CTAs (since the reputation of the organisation depends on competence of its faculty staff and graduates).

Proposal

We argue that the professionalization and certification of CTAs becomes more important as risk, stakes and responsibility rise, and will present for discussion a three-dimensional matrix of risk (for patients), stakes (for students) and responsibility (for CTAs). We suggest the time is right to agree standards for certification of CTAs. This would be to everyone's advantage and would facilitate use of CTAs in high risk, high stakes learning and assessment.

O80

Obstetric HDU Course - A trial of blended learning

Quinn, A.

Aim

We explored a new way of blended learning for a course, using video podcasts [1,2] as pre-course learning material for senior midwives and trainee obstetricians.

Background

Traditionally, the participants required three days study leave to attend. Owing to national midwifery shortages and restricted funding this has become impossible.

Method

Instead of providing students with a course manual, we provided a link to online podcasts, to download and study at their leisure via itunes. Each podcast, lasting approximately 30 minutes, covered a chapter previously in the course manual. The students had pre-course MCQs to complete before attending the course. This was complemented by a day of simulated training.

Results

The course has received excellent feedback and adopted by Leeds University as a 30 credit module

Discussion

The podcasts provided a simple and versatile teaching method in contrast to the usual manual paper and class lecture methods with associated cost/difficulty in updating/delay in reaching students. Interactive podcasts make learning easier, more interesting, reduced the course time by two days and also decreased the number of trainers needed. However, it is important that the delegates still reserve study time at their convenience.

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O81

Balancing patients' rights and responsibilities: time for a new contract between learner, patient and teacher

Parle, J., Ross, N.

Background

Thankfully, in the modern world of respect for patient autonomy, the 'old' unwritten contract that assumed patient consent for learners to practice 'on' them has gone but has not been replaced. In addition, evidence suggests that students are no longer acquiring sufficient clinical competence in, for example, examination and procedural skills, and therefore we may be qualifying 'incompetent' doctors. There is growing evidence that learning in simulation is more effective and efficient in the development of competence and can deliver students who are ready to learn in supervised clinical practice.

Proposal

The old unwritten contract needs replacing by one which recognizes and makes explicit the rights and responsibilities of all parties: those directly represented in a teaching encounter (patient, learner and teacher) as well as those not represented but who have an interest (i.e. all future patients of the clinician in training). Ethically, this must include a requirement that learners are *already* competent before they practice on patients and that they only learn from working with patients what they couldn't learn in any other way. We should always ask ourselves: *'Why are we 'using' patients to enable this learning?'* and be prepared to justify our answer.

Sala Toscana

O82

Teaching Clinical Reasoning: Tutors' Perceptions of Change in Their Own Clinical Practice

Gay, SP., Bartlett, MH., List, PAD., McKinley, RK.

Background

Clinical reasoning is taught as a fourth year course at Keele Medical School, with the expectation that decision making and patient safety will improve as a result [1,2,3]. Although course content is relevant to all clinicians, historically it has not been formally taught. Therefore, as practicing GPs, the tutors may be gaining a new vocabulary and new skills themselves[4].

Aims

To explore tutors' perceptions of the effect teaching this clinical reasoning course has had on their:
     1) Understanding of clinical reasoning
     2) Clinical practice

Methods

All consenting tutors participate in recorded semi-structured interviews with an experienced, non-medical, qualitative researcher(PADL). Our analytical approach focuses on thematic analysis of content using the constant comparative method.

Results

The subjects of this study are general practitioners with between 7 and 32 years clinical experience. Data collection is incomplete at time of abstract submission.

Discussion

We anticipate that this study will provide a rich description of the impact of teaching clinical reasoning on these tutors and results obtained will be discussed during the presentation.\

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O83
Ward-based Simulation
Gray, T., Hinton, G., Paterson, L., Dillon, A.
Presented by Dillon, A.

A programme was developed using NLP, for a ward which had problems with poor communication, unreliable teamwork and low morale. Our aim was to emphasise the importance teamwork and demonstrate the vulnerability and lack of control that patients may feel during their stay in hospital.

Staff underwent some classroom sessions, and then we constructed a circuit where staff had to observe or take part in different scenarios and then reflect and feedback. The scenarios were based around situations that staff frequently encountered on the ward. A ward-based simulation, where the candidates took the part of patients and the clinical skills team became the nursing staff, followed this. This simulation was based around attitudes and behaviours displayed from the ward and other areas around the Trust. The staff were given patient characters that they acted out. Facilitators emphasised poor communication techniques between nursing staff, disregard for privacy and dignity and a lack of support for each other.

This was followed by a debrief and feedback session, questionnaires were used for follow-up four months later. Feedback was positive; all staff said that they found the experience enjoyable, beneficial and that it had helped them deal with behaviours displayed on the ward. Performance indicators measured have improved. Staff sickness is down, hospital acquired infections reduced alongside pressure ulcers, and the ward has since received several complimentary letters.

O84
Knowledge translation: Are the next generation of paramedics agents of change?
Williams, B., Brown, T.
Objectives
Knowledge translation involves the dissemination and application of scientific research findings into clinical practice. In the healthcare arena, uptake of evidence-based assessment and intervention strategies is aimed at reducing inefficiencies and ultimately improving patient outcomes. However numerous studies have purported gaps in knowledge translation in the healthcare professions. Therefore the objective of this study was to assess the extent of knowledge translation in paramedic students at a large Australian university.
Methods
A cross-sectional study of students across all undergraduate years from Emergency Health and Emergency Health/Nursing was completed. Student knowledge translation levels were measured using the 17-item paper-based *Practice Style Inventory* (PSI).
Results
A total of 266 students participated in the study of which 66% were females. The majority of participants were < 26 years of age (n=128) and enrolled in second year studies (n=134). Two subscales produced statistically significant differences: *'Evidence/Experience'* (extent to which scientific evidence rather than authority is perceived as the best source of knowledge), and *'Nonconformity'* (degree of comfort with clinical practices that are out of step with recommendations of leaders). There was a statistically significant difference between gender on the *'Evidence/Experience'* subscale (p=<0.0001, d=0.51), and between year levels on the *'Nonconformity'* subscale (p=<0.007, d=-0.63).
Conclusions
This study identified several differences in knowledge translation subscales in the undergraduate paramedic cohorts. Further investigation is warranted in order to better understand barriers and facilitate improved uptake of evidence-based research into clinical practice and ultimately improve patient outcomes. Future research using a longitudinal study design to capture changing attitudes to knowledge translation in the postgraduate population may also prove valuable

O85
Transferring rhetoric to practice: key elements that support learning
Newton, JM., Jolly, B., Henderson, A.
Background
While learning through simulation is effective for many domains[1] important contextual factors in the workplace not only influence students' approach to learning, but through this interaction have reciprocal effects on the existing workforce. How one-on-one learning occurs in the workplace is conceptually challenging due to this complexity. Our earlier research has identified key elements in the workplace that augment the acquisition of learning. These aspects centre on the organisational culture, communication, team work, preparation, and student centredness of

the workplace environment [2, 3]. This paper reports on findings from an Australian Research Council Discovery funded study, of emerging constructs that will inform a new conceptual model of workplace learning in healthcare.

Methods

As a component of a two year project framed in ethnomethodology where the analytic interest is in the methods individuals employ in their work and the associated learning[4], one-on-one audio-taped interviews were undertaken with nurses (n=50) and nursing students (n=50), following a period of field work observations of the participants across a range of clinical settings. Interview transcripts are being thematically analysed using NVivo10.

Results

Preliminary analysis is revealing that there is a distinction between those practitioners who accept their teaching role and value student's contribution compared with those who do not establish what the student already knows or needs to know. Furthermore, there is variability in how much nurses allow students to direct their own learning, for example, facilitating students taking the lead in caring for patients rather than providing continuous direct instruction. These anomalies create tension in the transfer of knowledge to practice and in workplace learning.

Discussion and Conclusion

These preliminary results add greater clarity to previous literature through discussion of specific initiatives. Educational and research implications of these preliminary findings will conclude this presentation.

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O86
Community Based Education: What is valuable for the students?

Kurniawati, N.

Background

Exposure to authentic cases in Problem-Based Learning (PBL) is important in contextual learning for medical students. Providing a great number of real patients for in-class session is not always possible. Therefore, an approach of community-based education is taken by sending the students to primary health centers. The aim of the study is to explore what the student regard as the most useful learning experience from the program.

Outline of Work

During a 12 weeks duration, three hundreds third-year medical students are exposed to the clinical settings in 26 Primary Health Center (PHC). They were given chances to perform physician's duty on the patient from admission to discharge under supervision from the physician on duty in the health center. A study on exploring the students' perception about the program is currently on progress.

Result

Preliminary result showed that students might regard the communication and examination skill as the most significantly improving areas during the program. Further exploration is on progress.

Conclusion

Exposure to real setting in Primary Health Center is regarded by the students as useful for improving their clinical skills. It could serve as a means for providing authentic and contextual learning environment.

O87
Using virtual patients to transfer clinical decision making skills from simulation to practice

Balogh, M., Müller, L.

Virtual patients provide a simulated environment in which the student is required to use decision making skills without the risk of harming an actual patient. The aim of our project is to move students from this simulated environment into practice. The two semester long project's first semester would be about the involvement of fourth and fifth year students into the creation of virtual patients using a template created in CourseLab 2.4. In the second semester, those students, whose VP-s are approved, will get assigned to an actual patient in the University's clinic. Their duty will be the supervision of patient management and the helping and coordination of students who are currently doing their shift. Feedback will be gathered by using a series of tests: one at the beginning of the first semester, then one at the end of the first semester, and one after the second semester. These results will be compared to each other, and to a control group.

This project is still work in progress, the first results are estimated by may 2013. At the near end of the first semester, 181 students are taking part in the program, about 110 of them acting as a control group and 70 acting as the test group. There are currently 7 virtual patients ready, with a lot more currently in progress.

O88

Training for clinical educators involved in pre-registration interprofessional (IP) simulations: issues to consider

Thomas, S., Coleman, J., Dudley, R., Hensman, M., Hirsch, C., Nevin, G., Stewart, J., Buckley, S.

In the UK, as elsewhere, changing patterns of patient care and an increasing emphasis on patient safety have led to substantial interest in the use of IP simulations in pre-registration healthcare education. However, such simulations are not always straightforward and debriefing pre-registration students can be a particular challenge. For example, in 2009-10, our collaboration between three Universities within the West Midlands, UK, ran a series of simulations involving 191 pre-registration students from five health professions. We found that students were more comfortable with receiving (>90%% positive, 151 responses) than with giving feedback in an IP context (77% positive and 22% mixed or negative, 143 responses). Some felt constrained by lack of knowledge of other professional roles or were concerned about being perceived as critical of other groups. Such findings have implications for faculty development. In 2011-12, our collaboration piloted a short training programme for clinical educators new to pre-registration IP simulation. The programme was developed by a multi-professional group from medicine, nursing, physiotherapy and a non-clinical educator with experience of faculty training. Challenges included time constraints (stand alone half-day sessions) and the wide variation in background, experience and expectations of potential attendees, as evidenced by a pre-course questionnaire. Sessions focused on the differences between uni- and inter-professional groups and the particular needs of pre-registration students. Activities explored difficult situations that may arise and considered debriefing using a video clip of an actual simulation.

In total, 26 clinical educators from six different professions attended a session, with all rating it excellent or good. Attendees particularly valued the opportunity to share expertise with other groups, the opportunity to consider difficult situations and the focus on debriefing.

This presentation will outline our experience with this type of faculty development; and suggest issues others may wish to consider when developing similar training programmes.

O89

Why are the Doctors pretending to be Nurses?

Radford, S., Lumsden, K., Mahoney, A-M., Lim, K.

Background

A deteriorating patient simulation program was implemented in 2010. One intern performed the assessment of the patient, while the second observed and acted as the bed-side nurse. Despite having access to nurses to participate, the design perpetuated our clinical silos. We asked ourselves why?

Methods

A pilot program was designed incorporating a first year registered nurse and an intern in a 1 hour simulation session with a deteriorating patient scenario and debriefing session. 10 sessions were run. Surveys were undertaken pre and post simulation and a focus group was conducted to get feedback on the process, particularly the interprofessional education aspects.

Results

The feedback indicated an improved confidence in providing care for the deteriorating patient.

Discussion

The participants found this to be a very beneficial program and felt the interprofessional aspects would improve communication and empathy between professions when dealing with deteriorating patients.

O90

Understanding patient satisfaction as a concept to improve multi-disciplinary clinical practice in a paediatric day surgery unit

Bradley, A., McCabe, A.

Background

Patient satisfaction has gained precedence in quality improvement. Few studies use tools with proven validity and reliability to measure patient satisfaction. Knowledge of how competence in multidisciplinary team working affects patient satisfaction is therefore poorly understood.

Objective

To produce a parent satisfaction questionnaire which has undergone satisfactory testing for validity, reliability, specificity and psychometric properties.

Methods

A Likert-style questionnaire was constructed through literature review and focus group meetings with health care professionals and students, parents and patient groups to establish content validity. Statements worded in positive phrasing were re-worded in negative phrasing to ensure intra-rater reliability. A pilot study was conducted and responses analysed for construct validity and inter rater agreement. Internal reliability was established using Chronbach's alpha coefficient.

Results

Chronbach's - analysis produced scores for each part of the questionnaire within the 0.7 to 0.9 range, proving internal reliability of the tool. Overall parent satisfaction was high.

Conclusion

The questionnaire was found to have proven validity, reliability, specificity and psychometric properties. Domains of satisfaction with multi-disciplinary team working were found to centre around communication/information giving, environment and patient care. Parent satisfaction was found to be high. However further research is mandated in areas of sources and methods of information giving.

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O91

Evaluation of interprofessional student led clinical placements in an Australian context.

Hood, K., Anderson, A., Cant, R., Baulch, J., Gilbee, A., Leech, M.

An educational experience which aims to transition health professional learners to the workplace is the Interprofessional Clinical Placement (ICP). Students have an opportunity to develop profession-specific skills and knowledge in patient management and in interprofessional teamwork in a real clinical setting.[1,2] Internationally, a number of successful programs have used an interprofessional learning model (IPL). Since 1998, the University Hospital Karolinska Institute in Sweden has conducted three training wards with multiple positive student and patient outcomes being reported.[3,4,]

In 2010, Southern Clinical School of Monash University was awarded an Australian Government Increased Clinical Training Capacity grant. This project aimed to create enriched and enhanced clinical placements and interprofessional learning opportunities for undergraduate health professional students. Two ICPs were piloted with nursing, medical and allied health student teams in an Emergency Department and a Rehabilitation Ward.

During the two week placement, interprofessional student teams collaboratively assessed and managed patients, delivering comprehensive care plans under supervision. Educationally prepared nursing and medical teachers and clinical staff were facilitators. Students received daily debriefing and gave a handover to regular staff at the end of their shift.

An evaluation framework based on mixed methods was staged over the study period. This included repeated survey of student attitudes to IPL and a purposely tailored clinical placement exit survey examining student perceptions of the learning environment and perceived efficacy of the placement for learning. Focus groups were used to gain in-depth understanding of student and teacher experiences. Patient satisfaction surveys and also 'workload' and 'treatment throughput' Key Performance Indicators were collected and compared to a control group.

Key results from student, patient, facilitator and key performance indicator perspectives will be presented. We will compare the successes of delivery and educational outcomes in international programs to the Australian experience.

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O92

Testing the FIRST²ACT simulation model with inter-professional experienced learners in situations requiring ethical decision-making skills

Endacott, R., Bradbury, M., Jenkin, A., Allum, P., Winfield, L., Scholes, J., Cooper, S., Kinsman, L.

Over the past three years, a research team drawn from Australia (Monash University) and the UK (Brighton and Plymouth Universities) has developed a programme of clinical simulation with different types of learners including nursing and midwifery students and experienced nurses working in rural hospitals.. The main outcome of this work is a pedagogic model of simulation delivery (FIRST²ACT - Feedback Incorporating Review and Simulation Techniques to

Act on Clinical Trends) incorporating feedback via video review (1). The most recent study allowed us to test the model as an intervention and demonstrated significant impact on patient management (2).

The purpose of this study is three fold: 1. To test the FIRST^{2}ACT model with health care professionals (nurses, paramedics and intercalated medical students) undertaking postgraduate programmes at Plymouth University

2. to apply the model to scenarios requiring clinical and ethical decision making

3. to examine the utility of FIRST^{2}ACT in facilitating inter-professional learning.

Data collection for Phase 1 (conduct of simulation exercises) will take place in the next two months and will be reported on during this presentation. Phase 2 (testing the sustainability of the learning) will be nearing completion by May 2013 and initial analysis of these findings will be reported.

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O93
Learning with, from, and about each other: Using simulated mental health team encounters to prepare health students for collaborative practice

McAllister, M., Statham, D., Oprescu, F., Boulter, C., Barr, N., Schmidt, T., Taylor, P.
Presented by Anderson, P.

Introduction

In Australia, one in five people have a mental health problem and their psychological, social and physical needs are diverse. Frequently individuals will utilise various health services and need the support of a range of health professionals. In order to improve efficiencies and reduce risk to clients, Australia has developed national practice standards for the mental health workforce, which articulate the expectation that there will be service integration and partnership. To achieve integration and partnership, government based mental health services predominantly run on a multidisciplinary team (MDT) model. In this way, a range of skills are available to support diverse needs of clients and families. The expectation is that the team will work collaboratively to assess, recommend and implement treatment plans. In reality, however, clinicians tend to work as individual case managers and consumers have continued to report that the teams are not cohesive in their approach, and they are not consumer, or recovery-focused. Better ways of working in MDTs need to be modelled, learned and disseminated across Australia.

This educational research project aimed to contribute to the evidence-base for mental health interprofessional education (IPE) by implementing and evaluating a MDT two day immersive learning experience involving students from numerous health disciplines. The workshop itself modelled collaborative practice, consumer involvement in care, team conflict management and ethical practice. The study was designed to answer 2 questions:

1. What is the effect of the workshop on students' knowledge, and attitudes towards IPE and mental health?

2. What are the educators' and students' perceptions regarding the value of IPE?

Methods

A pre-post test design was used to measure participants' changes brought about by the intervention, with student data collected at 4 time intervals, pre intervention, immediately post intervention, 1 month post, and 3 months post and educator data collected following the experience. The Interdisciplinary education perception scale (IEPS), and the mental health clinical confidence scale were administered, and perceptions of workshop value were also examined following the learning experience.

Results

There was a statistically significant increase in mean clinical confidence at each time interval, with intervention effects maintained up to 3 months post-training. Increases in the Competence/Autonomy and Perceived Cooperation subscales of the IEPS were also observed. Qualitative data revealed that students were more appreciative of professional differences and had improved cross-disciplinary communication skills; there was an enhanced appreciation for how diverse world views can directly improve person-centred mental health care; and the whole experience helped to clarify their own professional identity. Educators observed that attention to a safe learning environment, by encouraging students to be reflective, self-aware and respectful at various points throughout the experience are important in mental health IPE because it reduces anxiety, and the need to act defensively and leads to more open discussion of issues relevant to MDT.

Conclusion

Intensive IPE in mental health learning can be a way to build professional identity as well as team work. It is important to consider activities that enhance students' sense of safety and security, particularly in IPE that relates to mental health.

O94
Clinical Skills, Simulation and the AHP . . . YES YOU!
Nicklin, J.

Allied Health Professionals are key players in the healthcare team yet, their participation and contribution to learning through clinical skills and simulation in both educational and in service environments is minimal and there is reluctance to recognise the relevance and benefits of simulation training to their profession and clinical practice.

An increasing number of disciplines are predicted to use simulation in training in the future.[1] This was highlighted by official reports directing the training and continuing professional development of healthcare providers [2,3,4] and more recently by The Framework for Technology Enhanced Learning. [5]

The NHS Yorkshire and the Humber Clinical Skills and Simulation Team hosted an event to bring together representatives from the 16 Allied Health Professions, some involved in clinical skills and simulation training, but the majority who were not. Through the informal but engaging medium of World Café presentations a range of professions shared best practice and promoted inter professional learning – incorporating clinical skills and/or simulation.

Initial evaluations were positive with an increased awareness of simulation opportunities, facilities and courses available in the region including positive outcomes for development and roll-out of regional AHP training incorporating skills and simulation.

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Studio 2
O95
Developing Clinical Skills In the Unregistered Workforce Delivering Care in a Community Setting
Ford, K.

With ever increasing demands on, and raised public expectation on the English National Health Service means that health professionals have to remain skilled, confident and competent in their practice. The workforce profile is changing and adapting to meet these needs, in particular the role of the unregistered support worker. Within community services this is especially visible with support staff carrying out clinical and procedural tasks that historically have been delivered by Registered Nurses (RN). This change has happened gradually but clinical skills training has not always developed at that same pace leaving many support staff expected to deliver care they are not sufficiently confident to deliver and with the possibility of putting patients at risk. This presentation will present the journey of not only how the clinical needs of the unregistered staff was assessed but how this was rectified by having unprecedented staff release to attend clinical skills training. The presentation will also outline the practicalities of the approach, barriers, challenges, outcomes and benefits of developing clinical skills training for support staff.

O96
An inaugural Clinical Skills Clerkship: the development, implementation, and evaluation of a three-week transition course for medical students
Taylor, JS., George, PF., MacNamara, MMC.
Background
Starting clinical clerkships can be very challenging for medical students.
Aim
We designed, implemented, and evaluated a transition course designed to maximally prepare rising third-year medical students for their specialty-specific clerkships.
Methods
The rigorous curriculum planning process took three years, involved multiple stakeholders, and was overseen by the medical school's Curriculum Committee. A task force of medical educators used Kern's six-step approach as their conceptual framework for curriculum design. In 2012, we launched a new three-week, innovative, cost-effective, non-specialty-specific classroom-based Clinical Skills Clerkship (CSC). The CSC has 90 hours of curriculum taught by more than 120 faculty members from a wide variety of specialties and health care disciplines. The course is comprised of three main content areas – a virtual family curriculum, interactive clinical skills training, and professional development, each implemented under the primary direction of a different course leader. Many aspects of the CSC are taught by a peer teaching cohort of senior medical students.

Results

The tangible result of a three-year clinical curriculum redesign at our institution, the CSC is a new transition course that was first delivered to 98 students in the spring of 2012. On course evaluations, individual curriculum components were rated amongst the highest of any at the medical school. Based on student performance on a six-station Objective Clinical Skills Examination (OSCE) as well as quantitative and qualitative evaluations of the curriculum and the teachers, our course was successful.

Conclusions

Using a systematic curriculum development process, we designed, administered, and evaluated a logistically ambitious but very efficacious new transition course. This new clerkship, either components or the entire curriculum, is easily transferrable to other institutions. We have several long-term evaluation strategies in place that should help us to further assess how best to refine and revise the CSC for future medical students at our institution.

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O97

Using Augmented Reality to Enhance Clinical Skills Learning

Latif, F.

The use of technology to engage students and support self-paced learning is considered important in nursing education (Everett and Wright, 2012). At City University London we are currently exploring how Augmented Reality (AR) can be used to support the development of clinical skills.

AR combines the 'real' world with the 'virtual'. It is not a new technology, however mobile devices e.g. smartphones and tablets, are helping making it a more achievable option in teaching and learning. Using AR concepts, relevant resources can be overlaid on equipment, dummies and key areas within a teaching laboratory, making them instantly accessible to students.

This concept was piloted in a clinical skills teaching session. Working in pairs, students rotated around different workstations and were able to access key resources related to a procedure. Students were able to access resources before, during or after carrying out a skill. This offered the opportunity to replicate, reflect on and repeat the procedures performed, promoting both peer feedback and self-directed learning, moving away from a didactic instructor-focused lab.

This paper will explore the findings from post-session student focus groups and show that AR was viewed as valuable and engaging. Further ways that AR can be exploited will be discussed.

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O98

DNA – Explaining the influence on the development of Bachelor of Nursing students' skills in nursing assessments

Horne, A., Anderson, P.

Presented by Andersen, P.

This study investigated the influences of Bachelor of Nursing student's progression to gain confidence and competence in undertaking clinical assessments within a nursing setting. Concern has been heightening by the criticism within the nursing profession of the capacity and work readiness of graduates of nursing programmes. Nursing education has been challenged to better prepare new graduates by increasing the amount of physical assessment and skills taught (Secrest, Norwood and DuMont, 2005). Fourteen third year nursing students participated in the study. A phenomenological methodological approach was used to collect and analysis the qualitative data. This provided a valuable insight into the types of assessments engaged with clinical practice, their experience, and the factors that impact on their ability to develop in nursing. It highlights the influence that leadership and mentoring play in developing the next generation of nurses and draws attention to the factors that facilitate and hinder this development.

The Five key finding included Learning, Clinical practice, Opportunities, Self and Confidence and Competence. The Developing Nursing Assessment (DNA) encapsulates three central ideas (Learning, Clinical practice, Opportunities) which are bound by the self of the student. The combination of all four pervious themes produce the fifth element which is a by product of the model (confidence and competence).

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O99
WIIMALI: A Virtual Community for Nursing Students
Levett-Jones, T., Day, J.
In Australia undergraduate nursing education about primary health care and community settings is not keeping pace with reform agendas that promote expanded roles for nursing in, illness prevention and health promotion[1]. This challenge is compounded by media images of nurses working in fast-paced and highly technological acute care environments. Beginning nursing students, no doubt excited by these images and imaginings, can be surprised and even disappointed by the requirement to learn about such concepts as illness prevention, health promotion, the social determinants of health and primary health care.
Against this background we developed, implemented and evaluated an online, interactive virtual community (*Wiimali*) with the aim of capturing student's attention, engaging their interest, and challenging them to think differently about primary health care. *Wiimali* is based upon two main premises:
1. The social environment (community) into which people are born, live and work is the single most important determinant of health ~ World Health Organisation, 2008.
2. Education is for improving the lives of others and for leaving your community and world better than you found it ~ Marian Wright Edelman, Civil rights activist.
Wiimali provides the opportunity for issues such as the social determinants of health, inequity, marginalisation, culture, access to health services, and the social implications of ill-health to be explored. Students take a virtual tour of *Wiimali*, listen to the weekly community radio news reports, read the Chronicle, a newspaper that is delivered weekly, explore the community via an interactive map with links to the *Wiimali* Aboriginal Medical service, the Council Chambers, the migrant centre, and the community birthing centre etc. Students see a home birth, visit the occupational health and safety nurse that works in the coal mine, and interview the practice nurses working in the GP clinic. This presentation will present the findings from an evaluation study that examined the impact of *Wiimali* on student learning, engagement, sense of social justice and understanding of primary health care.
Reference List
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O100
Development and validation of a Health Information Technology Learning Module
Kowitlawakul Y., Chan, S.
Purpose
To develop and validate a Health Information Technology Learning Model (HITLM) that provides a conceptual framework for explaining and understanding nursing students' intention to use the electronic health records (EHRs) before practicing in clinical setting.
Methods
The study adopted a quantitative, non-experimental descriptive design. Questionnaires were administered to 263 eligible undergraduate nursing students at a university in Singapore. Content validity was examined and the reliability of the instrument was tested. Bivariate correlation statistics were performed to describe the relationships among the variables and constructs in the HITLM. The multiple regressions (path analysis) were performed to identify the most influential predictor of the students' intention to use the EHRs, and applicability of the HITLM in explaining nursing students' intention to use the EHRs.
Findings
There were 218 participants in the study (83 % response rate). The HITLM explained 44% of variance observed in the students' intention to use the EHRs ($R^2 = 0.44$). The most important factor that predicted nursing students' intention to use the EHRs was students' attitudes toward the EHRs.
Conclusions
Cultivating nursing students' attitude toward the EHRs, perceived usefulness, and social influence before implementing the EHRs is essential. The HITLM could help faculty/educators and administrators to plan curriculum content, teaching and learning strategies, and experience to prepare nursing students using EHRs in clinical practice and settings.
More validation and investigation on the HITLM in education setting with other types of health information technology are needed. The replication of this study is also highly recommended.

O101

The obese patient: enabling students to practise evidence-based practice at the behavioural intervention stage

Leedham-Green, K., Sugden, R., Wylie, A., Takeda, Y.

Outline of Work

A cohort of 430 students at King's College London produced reflective essays describing an encounter with an obese patient during their GP rotations. Analysis of this data illustrates the difficulty that students have in broaching this 'taboo' topic with patients, and the lack of adherence to NICE guidelines at the early behavioural intervention stage. A taught set of questions developed at Imperial College[3] was therefore introduced to as an innovative support to student learning. We will be presenting evidence on the efficacy and usability of this teaching tool including its impact on students' consultations with obese patients.

Background

44% of the diabetes burden, 23% of the ischaemic heart disease burden and between 7% and 41% of certain cancer burdens are attributable to overweight and obesity[1]. Evidence-based approaches to behavioural interventions have been shown to produce modest weight loss but significant health benefits. Preventing and managing obesity is an NHS priority[2], but our research shows that current teaching does not always address medical students' concerns at addressing obesity in a consultation.

Research

Case studies (n=120) from 3 rotations were thematically analysed with NVivo, as part of a broader ethically approved project. Specific teaching on how to take a dietary history is being introduced on campus and at a workshop for GP tutors for the next cohort of students. Case studies following this teaching will be compared.

Results

Preliminary results indicate that this taught set of questions is valued by students. Results from both cohorts of students will be presented comparing confidence at broaching the topic, and depth of information elucidated.

Reference List

[1] World Health Organisation 2008-2013 Action plan for the global strategy for the prevention and control of noncommunicable diseases
[2] NICE clinical guideline on obesity 2006
[3] Paul Booton "How to take a dietary history", Imperial College Faculty of Medicine 2011

Breakout 2

O102

'The Patient Journey from Trauma to Rehabilitation': how Interprofessional Education (IPE) can facilitate collaborative clinical practice

Frame, F., Mackenzie, R., Coats, T., Anderson, E.

Background

There have been a number of key changes in trauma service provision and delivery in the UK[1,2] highlighting the need for a 'collaborative workforce' to improve patient outcomes[3]. Interprofessional Education (IPE) is a recognised method of achieving this[3,4].

Methodology

The Trauma and Acute Care Society from Leicester Medical School ran a peer-led study day centred on a real trauma case, who sustained life-threatening injuries after a road traffic accident. The concept of the patient journey was utilised as a framework to teach, assess and reinforce the core knowledge, skills and attitudes needed to care for a patient from trauma to rehabilitation.

Findings

The 150 undergraduate healthcare students who attended the day were asked to complete a likert scale questionnaire. 95% reported an extremely high degree of satisfaction overall, demonstrating a significant improvement in the knowledge, skills and attitudes needed to manage the core components of the patient journey.

Conclusion

Student feedback has led to the development of interprofessional open educational resources (OERs), which can be shared. The resultant learning materials have recently been made available to undergraduate healthcare/emergency service students across the UK. Ongoing evaluation will ensure they remain responsive to the needs of IPE and collaborative clinical practice.

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4. Barr, H & Low, H 2011, '*Principles of Inter Professional Education',* CAIPE, London

O103

Students' experiences of interprofessional collaboration during and after an Interprofessional Training Ward (IPTW) course – a mixed method study

Lachmann, H., Ponzer, S., Johansson, U-B., Karlgren, K., Fossum, B.

Learning is not a purely cognitive or individual matter, we have previously described students' experiences of their academic emotions, e.g. feelings of stress related to clinical interprofessional studies, based on data collected continuously via mobile phones by using the Contextual Activity Sampling System (CASS) [1]. This studies objective was to gain deeper understanding of how students perceived collaboration during and after an IPTW-course. Previous attempts to describe experiences of interactions in clinical settings are faced with methodological challenges and drawbacks that may affect data [2]. Quantitative and qualitative data were gathered five times a day via questionnaires sent to mobile phones during an IPTW-course and by post course interviews. The results showed that students acquired an awareness of the valuable knowledge they contributed with, the benefits of interprofessional education (IPE) with opportunities to contributes with and acquire new knowledge for improved patient care outcomes. They got insights for how knowledge creation enables during team collaboration assuming good communication. This study might lead to a better understanding of how to improve collaborative knowledge creation in clinical IPE settings regarding students'' requests. The CASS methodology captures students' experiences in context and thereby provides unique data that can enhance collaborative knowledge-creation in clinical IPE settings [3,4].

Reference List

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O104

Learning together to work together: The Interprofessional Delirium Programme

Kiegaldie, D., Maddock, B., Darzins, P., Cross,W., Workman, B.

This paper will present the development, implementation and evaluation of an interprofessional learning programme conducted over two years to over 1100 final year medical and nursing students. The focus of the programme was on delirium and its collaborative management.

Students participated in a three-hour education experience, which included a DVD of an interprofessional conversation about delirium between a senior nurse and doctor, an interprofessional paper-based case study and an immersive simulation scenario using a trained actor. This was followed by a nurse and doctor led debrief. Key factors to the successful implementation included appointing a dedicated person to manage the programme, ensuring engagement and training of medical and nursing tutors, and organisational leadership.

The evaluation consisted of a post experience questionnaire including the validated Readiness for Interprofessional Learning Scale and open-ended questions to explore student's perceptions of the programme. Outcomes of the evaluation indicate that students highly valued the immediate opportunity to put theory into practice, it developed their appreciation of others roles and they viewed interprofessional learning as a driver to influence effective interprofessional clinical practices. The programme has now become embedded into medical and nursing curricular at Monash University and has been successfully delivered to over 2,500 students in the past three years.

O105

The team Emergency Assessment Measure (TEAM): Validity, reliability and feasibility?

Porter, J.

Aim

To develop a valid, reliable and feasible non technical skill assessment measure for emergency team performance.

Background

There are currently profession specific assessment measures (e.g ANTS[1]) but not a tool to measure resuscitation team performance in the emergency department. This tool was developed to meet that need.

Methods

(1) An extensive review of the literature for teamwork/leadership instruments, and (2) development of a draft instrument with an expert clinical team. (3) Review by an international team of 7 independent experts for content validity. (4) Instrument pre-testing and (5) pilot testing on 3 previously video recorded hospital resuscitation events and 48 videoed simulated multi-professional events. (6) Secondary rating of 25% for inter-observer reliability, and (7) a final set of ratings (for feasibility) on 18 simulated 'live' events.

Results

Following expert review selected items were found to have a high content validity index of > 0.83. Internal consistency of the scale was high with a Cronbach alpha of 0.89. The final 12 items (11 specific and 1 global rating) were rated on a five point scale and covered three domains, leadership, team work and task management, covering skills such as communication, adaptability and situation awareness. .

Conclusion

The *TEAM* tool has been found to be a valid instrument in this primary study, emergency educators will be able to utilise the tool to assess emergency non-technical skills.

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Funding

O106

Learning about interprofessional clinical practice in a simulated ward environment

Kiegaldie, D., Darzins, P., Cross, W., Workman, B., French, J., White, G., Flanagan, B.

This paper will report on findings from an interprofessional teaching and learning activity delivered to approximately 200 final year medical and nursing students using a simulated patient with delirium in a simulated ward environment. The aims of the study were to develop, trial and evaluate an interprofessional learning (IPL) approach and compare this with a uniprofessional learning approach. Students' performance in an authentic simulated scenario was evaluated for both groups. The objectives of the study were to identify whether an interprofessional approach:

- developed student's appreciation of the others roles;
- increased their knowledge and confidence in managing patients with delirium; and
- developed students collaborative teamworking sills, communication skills, patient centeredness skills and professional identity.

An additional objective was to determine whether a complex interprofessional education initiative was logistically feasible.

Pre and post testing instruments included a Delirium Knowledge Test and the validated Readiness for Interprofessional Learning Scale. Video recording and observation of the simulation measured the team work and communication skills of IPL and UPL groups. Follow up surveys determined the perceptions of the students during this experience and individual interviews provided an opportunity for further exploration of perceptions of the students during this experience. Results indicate positive feedback about the overall experience from students and tutors. IPL students rated the experience higher than UPL students in terms of increased confidence in the collaborative management of a patient with delirium. All students, but particularly IPL nursing students, rated the experience as an important driver to influence effective interprofessional clinical practice. Differences were noted between groups (UPL and IPL & Medicine and Nursing) about different activities of the learning experience. This study revealed that a complex interprofessional learning intervention is logistically possible and highly valued by students.

O107

Who constitutes the resuscitation team, what roles do they play and who is looking after the family

Porter, J.

Aim

The aim of this paper is to report the findings of a study on family presence during resuscitation seeking to understand the role of each team member and how that affects inclusion of family in the resuscitation in an emergency setting.

Background

Family presence during resuscitation (FPDR) has been endorsed by resuscitation councils and emergency medicine associations since 2000, yet limited research has been conducted into the roles and responsibilities of individual team members in order to ensure that FPDR can be successfully implemented and practiced. An Australian Victorian State study, conducted as part of a mixed methods PhD, explored emergency personnel attitudes towards FPDR in both adult and paediatric resuscitation presentations aimed to investigate resuscitation roles and responsibilities[1].

Method

A quantitative questionnaire constituting phase one of a mixed methods PhD study was used to explore the roles and responsibilities of each individual resuscitation team member with particular emphasis on the role of a family support person.

Results

Preliminary findings demonstrate that there was a unique difference between nurses and doctors perceived roles and responsibilities in a resuscitation team with a variety of configurations indicated. There were similarities with certain key roles for example airway management however the role of a family support person remained unclear and at times was completely excluded from those listed. The survey asked for staff to indicate the number of people in a resuscitation team with 4-6 (65%) being the most common. The majority of staff (63%) designated resuscitation roles at the beginning of each shift. Further, the study explored the information which staff stated was important to give to

family members, three common themes emerged; 1 what is happening, 2 likely outcome, and 3 what we are doing, with special emphasis on honesty and terminology as essential.

Conclusion

Further work is needed to evaluate the extent to which resuscitation team roles and responsibilities plays in FPDR implementation and practice.

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Funding / Acknowledgments

Key Words

Family presence, Resuscitation, Emergency

Breakout 1

O108

Utilising Direct Observed Procedural Skills (DOPS) enhanced by video as a learning tool

McLeod, R., Harrison, N., Smith, R.

Introduction

Assessment processes that enhance a student's competence would contribute to medical education and patient safety (1). There is therefore a need for trials that evaluate methods of procedural skills training.

Aim

This study aimed to investigate factors that enhance the acquisition and maintenance of procedural skills of year 4 students.

Methods

56 students were randomly assigned to 2 groups. All students carried out a simulated cannula insertion. The experimental group received a formative DOPS assessment and debrief with a personalized video of their own performance. Participants in the control group received a formative DOPS assessment but with a standard cannulation instructional video. All students were assessed again at 4 week, 12 week and 6 month intervals.

Results

Fifty-two (92.8%) subjects completed follow up testing. 47 students completed questionnaires at 6 months. Forty-five (95.7%) students agreed that the video encourages them to critically examine their clinical practice. Two (4.3%)) disagreed this was the case. Forty-six (97.8%) students agreed that this exercise was helpful to a medical student's personal development. One (2.2%) student disagreed this was the case. The experimental group, although having a lower initial competence, showed improved acquisition and maintenance of the skill.

Discussion

This study suggests a personalised audio visual record of performance is a useful formative learning tool. Focus groups will provide insight into student perceptions of the impact of both videos. Interestingly, student utilisation of both video types was poor. The next step would be to see if the skills acquired are transferred to patient care by using DOPS assessment in the clinical environment.

Reference List

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O109

Assessing Residents' Competence in Two Contexts: Standardized Patient Exams and Unannounced Standardized Patient Visits

Zabar, S., Hanley, K., Burgess, A., Gillespie, C.

Purpose

Standardized patients (SPs) can be used to assess performance in structured examinations (OSCEs) or in clinical practice as Unannounced SPs (USPs). Little is known about how performance may vary across these contexts.

Methods

PGY1 (n=16) and PGY3 (n=7) residents saw four USPs over 6-months (92 USP visits) in clinic. Residents had completed a 10-station OSCE involving similar cases. Communication (12 items), patient-satisfaction (3-4 items) and patient-activation (3-4 items) were assessed by SPs using the same behaviorally-anchored checklist. Scores calculated as %-items rated well-done (3-point scale). Detection surveys were conducted.

Results

Internal consistency was acceptable. (Cronbach's alpha .65-89). Detection rates varied by case: 0-34%; performance did not vary by detection. Communication did not differ between OSCE (67%, SD=12%) and USP (70%, SD=12%) settings, but did for patient-satisfaction (66% vs 78%, $p=.04$) and patient-activation (26% vs 47%; $p=.005$). Most residents' ranks among their peers were similar when compared between assessment contexts. However, some performed better in USP visits while others performed better in OSCEs.

Conclusions
OSCE validity may vary for individual residents. The realism of USPs may enhance residents' patient-centeredness and activation skills. OSCEs effectively measure clinical capabilities, but USPs may be better suited to assessing complex patient-centered care in context.

O110
Assessing medical students' information gathering skills at the start of medical school: implications for clinical reasoning curriculum and assessment
Gillespie, C., Hanley, K., Adams, J., Friedman, J., Mercuri, J., Zabar, S., Kalet, A.
Purpose
Clinical reasoning is a complex skill that involves gathering necessary information from the patient. This study seeks to describe information gathering skills in matriculating medical students in order to inform curriculum design and explore the need for tailoring education to students' pre-existing strengths and weaknesses.
Methods
Two classes of incoming medical students (n=326) participated in a 3-station Standardized Patient examination within two weeks of matriculation. Cases contained underlying medical and psychosocial issues that effective information gathering should reveal. After each case, students identified the medical and psychosocial issues they elicited. The number of elicited issues was counted and variation among students assessed, including balance of medical and psychosocial focus. Correlations assessed association between number of issues elicited and overall communication skills (assessed reliably via a 16-item behaviorally-anchored checklist).
Results
Mean number of issues elicited by students varied substantially: Case 1=11 (SD 4, range 1 – 17); Case 2=7 (SD 3, range 1-12), Case 3=9 (SD 4, range 1-17). Balance of medical vs. psychosocial issues also varied, with a small minority (8-12/case) focusing exclusively on medical issues. Issues elicited within each case was significantly correlated with the other cases ($r=$ .30 to .52, $p<$.05); the magnitude of association suggests that information gathering skills reflect both clinical content and generalizable ability. Issues elicited was significantly correlated with communication skills ($r=$.21 to .37, $p<$.05); effect sizes suggest that information gathering skills are only partly explained by communication skills.
Conclusions
At the start of medical school, students appear to vary in their ability to gather relevant information and therefore, perhaps, in their critical thinking/clinical reasoning. Whether due to clinical experience/knowledge, communication skills, and/or underlying abilities to process/synthesize information, this finding not only deserves further attention but also suggests the need to design medical school curriculum sensitive to student variation in information gathering skills.

O111
The impact of Primary Care Physicians' (PCPs) training in Electronic Medical Record (EMR) use on their competence: report of a pragmatic trial
Reis S1, Sagi D2, Eisenberg O2,3, Kuchnir Y4, Azuri Y4,5, Shalev V4,5, Ziv A2,5
Background
Israel enjoys a virtual universal deployment of the Electronic Medical Record (EMR) in its HealthCare system, with Primary Care at the forefront. While most attention is being paid to the data the EMR generates for health services management, there are surprisingly very little theoretical work or educational programs in addressing the impact of the computer presence on the clinical encounter. We have piloted a framework for teaching and evaluating patient –doctor Doctor-Patient-Computer Communication (DPCC).
Objective
This study is aimed at comparing two training programs for enhancing EMR proficiency of community physicians. The objectives were to measure and explain the influence of instruction in EMR usage competence in a simulated environment on patient-doctor communication in the computerized office of community based physicians.
Method
An experimental design comparing an educational intervention with a control group. 36 primary care physicians (PCPs) participated in this study, divided into experiment and control groups. All PCPs went through identical simulated encounters, six encounters at the pre training and six at the post training phase. Experiment group received simulation based training (SBT) while control group received traditional lecture based training. The validated extensive evaluation was applied using physician observers, standardized patients and self-assesments.
Results
Performance, attitude and sense of competence of all PCPs improved at the post training phase, but no difference was found between experiment and control groups PDCC skills. PCPs from experiment group evaluated the contribution of the training phase higher than PCPs from control group, and showed higher satisfaction.
Conclusion
Simulation enhances DPCC skills. Exposure to simulation served as a learning experience through deliberate practice. Future planning of studies of this kind should control the exposure to simulation prior to the training phase. Training and assessment of clinical communication should include EMR related skills. Training for EMR use should include PDCC training.

O112
Online video in clinical skills education for undergraduate student nurses: A mixed methods prospective cohort study
Holland, A., Smith, F., Watt, S., McCrossan, G., Adamson, L.
Presented by Watt, S.
Background
Improvements in the safety of the prescribing, dispensing and administration of medicines are identified as a priority for healthcare systems across Europe, North America and Australia (UK Department of Health 2003). It is therefore essential that higher education institutions play their part in helping to meet this international patient safety objective by effectively educating nursing students in this vital part of their role.
Methodology
The study utilised a mixed methods prospective cohort design. Using existing facilities within Edinburgh Napier University (Scotland) we developed a media clip to be accessed as an adjunct to taught clinical skills sessions via the University's Virtual Learning Environment. Evaluation was undertaken through statistical analysis of assessment results and satisfaction ratings of both a Control (n=168) and Intervention (n=154) group, in addition to qualitative data gathered from focus group interviews (n=36) of volunteers from both groups.
Findings
Significant (p = 0.021) (n = 322) statistical evidence of an association between cohort and examination outcome was found, with students in the Intervention group displaying a 13.7% reduction in Fail rate. Student satisfaction scores (n = 235) on 11 out of the 21 questions on the survey tool differed between the two cohorts at the 5% level of significance. In each of these questions, students who received the online video were more satisfied.
Focus group data analysis identified 3 key themes; Acting the Part, Compartmentalising and Strategic Learning.
Conclusions
Previous research evaluating computer based video instruction (CBVI) for clinical skills is limited in terms of: applicability to an undergraduate nursing setting, methodological issues and evaluation of CBVI as an adjunct to taught clinical skills. Our study addresses these limitations and provides strong evidence to support the study hypothesis that "*Access to an on line media clip to augment the clinical skills teaching of oral medication administration in an undergraduate programme of nursing will enhance performance and student satisfaction*".
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O113
Actor patients in undergraduate nursing programmes. Do we really know what students want?
Watt, S., Brown, N.
Background and study aims
'Actor' or simulated patients are often used for teaching and assessment purposes in medical education but less so in nursing. While many benefits of having actor patients involved have been identified (opportunity for repeated practice, reduced risk to patient safety; Ker et al, 2005), it seems that few studies have considered the students' experience of their involvement. This study aimed to evaluate the students' experience of having actor patients involved in their teaching and assessment.
Method
First year nursing students who had undergone clinical skills teaching and assessment that involved actor patients, were invited to complete a survey at the end of their first trimester to evaluate their experience.
Results:
Although 84% of students (n=31) thought involving actor patients in their teaching and assessment would help them prepare for practice, many students (45%) did not want them present at their initial teaching session where they were first introduced to the skills. Almost all students (97%) thought it would be beneficial if the actor patients gave them feedback on their performance in relation to their communication and compassion. (67 words)
Conclusion
The findings indicate that nursing students want the opportunity to practice their clinical skills before practicing on an actor patient. (20 words)
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Medical Teacher 27 (1) 4 - 9

O114
Controversies in the use of simulation – advancing the debate
Levett-Jones, T., Guinea, S., Brown, R., Reid-Searl, K., McAllister, M., Crookes, P., Kelly, M.
Background
The use of simulated learning environments to reproduce authentic clinical experiences and enhance the education of healthcare professionals has developed at an unprecedented pace. Investment in these technologies has escalated with claims of positive learning outcomes cited as justification for this investment. Simulation is said to provide opportunities:

- for active involvement in challenging clinical situations that involve unpredictable simulated patient deterioration
- for exposure to time sensitive and critical clinical scenarios that, if encountered in a 'real' clinical environment, students could normally only passively observe
- to integrate clinical skills, content knowledge, interprofessional communication, teamwork, physical assessment, and critical thinking in a realistic but non-threatening environment
- for learning from mistakes through repeated practice and without risk to patients.
- to engage in low prevalence high risk clinical situations[1, 2, 3].

Discussion
Although the last decade has seen a marked increase in the amount of simulation literature, the quality of simulation research is not always commensurate with the amount; and evaluation approaches still focus predominantly on student satisfaction[4] and knowledge acquisition[5]. Currently, there remain a number of unresolved yet critical issues in relation to the use of simulation for undergraduate students, these include questions such as:

- Should simulation experiences replace clinical placement hours?
- Should simulation be used for formative and/or summative assessment?
- Can students be exposed to 'too much' simulation?
- Does the learning that occurs in simulation transfer to clinical practice?
- What direction should future research take?

Conclusion
This presentation will further the debate on these contentious questions, with the promoting new and more strategic education and research trajectories.
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Session 15 – Keynote Plenary

Salone
KA06
The Role of Simulation–Based Education in Building Bridges to Patient Safety
Professor Amitai Ziv
In late 1999, the important report on patient safety To Err is Human was issued by the US National Institute of Medicine (NIOM). It indicated that health care is far less safe than it should be, and that death due to medical errors in the US near 100,000 people annually. This report triggered a massive attention to the need for a paradigm shift in healthcare professionals' education and led to an increased recognition in the power of simulation based medical education (SBME) to enhance patient safety culture and practice. Thus, a decade after the release of the NIOM report, the WHO Patient Safely Alliance has released its Patient Safety Curriculum for Medical Schools, which highly recommends comprehensive and structured use of simulation-based training as an important component of health professional schools' and continuing education curriculum, and as a mean to convey the safety and quality message to healthcare students and practitioners worldwide.
Simulation in health care is a rapidly growing educational field used to reproduce real patient experiences/encounters with guided and controlled simulation based scenarios. It offers a safe and "mistake-forgiving" environment where trainees can learn from their errors without the risk of harming real patients. Training is learner oriented, which enables consideration of the trainees' needs, deficiencies, and their pace of learning, without the ethically disturbing use of actual patients that is associated with traditional bedside teaching. Simulation provides a hands-on empirical educational modality, enabling controlled proactive exposure of trainees to both regular and complex, uncommon clinical scenarios. This modality further supplies a unique opportunity for team training, an important contributing

factor to enhance patient safety that is seldom addressed in traditional medical education. Another important benefit is the reproducible, standardized, objective setting it provides for assessment purposes.

The lecture will review the evolution, current status and trends in medical simulation at large and its contribution to enhancement of patient safety culture in particular. It will also focus on the challenges and lessons learned from MSR, the Israel Center for Medical Simulation, which is a comprehensive, multimodality, multidisciplinary simulation center which has been operating as a national simulation center since 2001, conducting mandatory simulation-based training and assessment programs in multiple clinical fields. A special focus will be put on the use of simulation-based training in continuing education and its impact on advancing a paradigm shift towards competency-based education and maintenance of professional skills of health providers. It will conclude with describing the actual and potential influence of simulation-based education on revolutionizing the 21st century educational paradigm and safety culture.

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