School of Medicine
Learning and Teaching Conference

Thursday 8th November
2.00pm – 5.00pm
Pre-conference workshop
Auditorium, UQCCR,
UQ Herston Campus

Deanne Gannaway
Head, Evaluation Unit, Teaching & Educational Development Institute (TEDI) - UQ

The what, how and why of evaluating educational experiences

What evidence of learning can we gather of our students’ learning?
How do we know that they have learnt something? What evidence will demonstrate what they have learned, because it might not be just content material – or what we thought we were teaching them!
And what should we do in response to the evidence gathered? How much of it is simply perception from a few individuals and how much of it can we really listen to?

This workshop will cover the basics of evaluation of learning and explore what strategies can be used to understand the what, how and why of learning. It explores the theoretical underpinnings of educational evaluation and offers some hands-on, practical approaches towards gathering evidence of learning.

Friday 9th November
8.30am – 4.30pm
Main Conference
Keynote Speakers:

Professor Nicholas Glasgow, Dean, ANU School of Medicine
A national assessment for Australian medical schools?

Dr Ruth Sutherland, Medical Education Unit, University of Melbourne
Processes of diagnostic reasoning in novice medical students
Conference Program – Friday 9th November

8.30 – 9.00  Registration and coffee

9.00 – 9.15  Introduction – Professor Jill Thistlethwaite
Welcome address – Professor David Wilkinson, Dean, School of Medicine

9.15 – 9.45  Keynote – Professor Nicholas Glasgow
9.45 – 10.15 Discussion

10.15-10.45  It’s not about the numbers – transparency in formative feedback – Lorna Davin

10.45 – 11.15  morning tea

11.15 – 12.30  Short presentations – 2 parallel sessions of 5 presentations
Venues: UQCCR Auditorium and Room 311, Health Sciences Bldg

12.30 – 1.15  Lunch

1.15 – 1.45  Keynote – Dr Ruth Sutherland
1.45 – 2.05 Discussion – Dr Sutherland will also answer questions about the MD at the University of Melbourne

2.05 – 2.30  BEME: Best Evidence Medical Education – description and future plans as UQ becomes an international coordinating centre – Professor J Thistlethwaite
Presentation – A BEME review of longitudinal community and hospital placements in medical education. The BEME topic review group.

2.30 – 2.45  Break

2.45 – 4.00  Short presentations – 5 presentations

4.00 – 4.30  Key messages of day; where to from here?
Background

Recent studies suggest that current medical graduates have substandard knowledge of anatomy and a need exists for teaching applied anatomy to junior doctors. To meet this need, a group of Queensland Health specialist surgeons designed a curriculum, which was organised in collaboration with the School of Biomedical Sciences at The University of Queensland.

Summary of work

Twenty-six recent MBBS graduates completed the first course offered during the first half of 2012. Eleven 3-hour modules were each presented twice. Summative assessment was held in early July, consisting of a theory exam (110 MCQs in 110 minutes) followed by a 1-hour practical examination (54 OSCE stations, each with two questions). Eleven students completed an evaluation at the completion of the course (response rate = 42%).

Conclusion

Students rated their own level of anatomical knowledge prior to the course as 2.5 (2 = low; 3 = average), which they perceived as improving to 4.1 (4 = above average; 5 = advanced) by the end. For the final summative assessment, the mean score on the theory paper was 60% (±19%, SD), with a similar result for the practical examination (mean = 56%±15%). The Course Prize was awarded to the student who gained 82%.

Themes: curriculum development; learning and teaching
A BEME REVIEW OF LONGITUDINAL COMMUNITY AND HOSPITAL PLACEMENTS IN MEDICAL EDUCATION: THEIR NATURE AND SCOPE, AND FACTORS ASSOCIATED WITH SUCCESSFUL LEARNING OUTCOMES.

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Background

Clinical experience is a core component of medical education. Clinical placements are typically four to eight weeks long. Such traditional short-term and mainly hospital-based rotations, supervised by an array of preceptors, are increasingly being criticised as poorly aligned to current educational theory and society’s health-care needs. In response to these concerns, longitudinal, extended or integrated placements have been introduced. However there has been no systematic review of the effectiveness of these programs to date.

Summary of work

We carried out a BEME review of longitudinal clinical placements with the main aims of defining the nature and scope of such placements; synthesising the published evaluation data and ascertaining the factors associated with students’ attainment of learning outcomes.

Summary of findings

We identified 53 papers that met the inclusion criteria. These were coded using a BEME coding sheet and assessed on their evaluation methods.

Conclusions

Major factors affecting the effectiveness are continuity of patient care, continuity of preceptor, learning environment and, where different types of placements exist within a medical school, students feeling there is equity in learning and assessment.

Take home messages

Longitudinal placements promote learning and encourage students to assume more responsibility for patient care. They increase confidence and trust in both students and supervisors.
A COMPARISON OF STUDENT PERFORMANCE IN PHASE 1 OF THE MBBS
AT IPSWICH AND BRISBANE SITES

Philip A Towers
School of Medicine, Discipline of Medical Education

Background

Thirty-nine students commenced first year of the MBBS at Ipswich in 2009 and 90 will commence in 2013. The curriculum and assessment are identical in Brisbane and Ipswich, the only differences are in cohort size and aspects of program delivery. The Ipswich Year 2 clinical coaching program, students are involved in rotations through wards at IGH, St Andrews Private Hospital and the Community Patient Volunteer program.

We assessed whether site of enrolment influenced performance. All assessment items included in non-clinical aspects of Phase 1 (from 2009 to Sem 1 2012) were compared using students T test. Performance in OSCE’s was compared based on the clinical school to which the students were assigned (Ipswich, PA, RBWH and Mater) using one way ANOVA.

Findings

For the non clinical aspects of the program, eight differences were detected in 52 items of assessment in Phase 1 with Ipswich students performed at a higher level in seven. In the 2011 Year 2 OSCE’s, Ipswich students achieved higher marks than RBWH and PA in history taking, and higher than RBWH students in ethics and communication.

Conclusions

Student performance in the MBBS at Ipswich campus is comparable, if not slightly better than at Brisbane sites. The CPV program at Ipswich gives students more tutor supervised practice at history taking (and consequently more practice in communication), and these are the OSCE stations in 2011 where differences were detected. A similar pattern was observed in 2010 OSCE’s, however this was not statistically significant.
Background

Global health is a subject delivered for the first time in 2012 to year 2 MBBS students. The course consists of face to face seminars and online tutorials covering the UN Millennium Development Goals (UNMDGs). Students have provided valuable input into its format as well as the assessment. The course aims to raise awareness and stimulate reflection on the doctor’s role in an increasingly globalised environment. This is less conducive to an assessment format that tests knowledge. The challenge therefore is to develop an assessment modality that encourages engagement.

Summary of work

The final assessment is also the “UQ School of Medicine Global Health Conference”. Each PBL group selects a topic from a list presented by the course organisers and addresses a set of questions to help guide their work. They submit an abstract and prepare a 10 minute powerpoint presentation to be showcased at the half day conference. This format allows students to work as a team analysing issues related to global health and at the same learn how to present their work in a professional conference experience.

Conclusion

The conference will take place on 20 October 2012.

Take home messages

Assessment can be engaging and fun?
Background

The research focus of this case study in medical education is to examine clinical teachers’ perceptions of and reaction to SET with respect to the purposes and uses of SET in enhancing their clinical teaching quality.

Summary of work

An explanatory sequential mixed-methods approach was employed to collect both quantitative and qualitative data (Creswell, 2012) from the 2011 Years 1 and 2 clinical coaches. Quantitative data were initially collected by the adapted survey ‘Approach to Feedback Inventory’ (Hendry, Lyon, & Henderson-Smart, 2007) and subsequently qualitative data were obtained from the semi-structured interviews conducted with the clinical coaches.

Summary of findings

From the collected responses, these clinical coaches perceived the purpose of SET as part of the process in quality assurance to enhance their clinical teaching quality. They are moderately receptive to the SET feedback. Institutional requirements, operational practices, personal biases and support provided are four key factors in enabling or inhibiting clinical teachers’ reaction to SET.

Conclusions

The core mechanism in influencing clinical teachers’ perceptions and reaction to SET depends on the interrelationships among the four different spheres of influence: clinical teachers’ understanding of SET, pedagogical knowledge, emotional responses and provision of practical support.

Take-home messages

Given that clinical teachers are motivated and value SET, and the institution is committed to providing teachers with opportunities to engage in a learning community, the teachers’ pedagogical knowledge of different instructional practices could be enhanced in a systematic approach. This could ultimately lead to an improvement in the quality of teaching practice (Fresko & Nasser, 2001; Hendry et al., 2007; Smith, 2008).

References


EVALUATION OF PAEDIATRIC ONLINE INTERACTIVE EDUCATION (POLIE)

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²Royal Children’s Hospital
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Background

To ensure that every student is provided with equitable opportunity to engage with the identified essential topics in the final year Paediatrics rotation, Paediatric On-Line Interactive Education (POLIE) has been developed to standardise the student learning activities, and as a complement to clinical experiences and patient interactions.

POLIE consists of ten online modules, with ten face-to-face tutorials. The modules cover common and important clinical paediatric conditions including fever, breathing difficulties, vomiting, seizures, head injury, irritability, failure to thrive and abdominal pain. With specific learning objectives, each module is based on a clinical case which unfolds through additional information being released to the students in terms of history, examination findings and investigations.

Summary of work

This research is an outcomes and process evaluation of POLIE using the two approaches below:

1. Outcomes evaluation based on Kirkpatrick (1969)
   Level 1 (student and facilitator reaction)
   - End-of-rotation online participant evaluation of POLIE
   - POLIE facilitators feedback survey
   Level 2 (change in student knowledge)
   - Pre (week 2) and post (week 8) multiple-choice tests

2. Process evaluation through different learning activities
   - Student learning logs
   - Semi-structured interviews

Summary of findings

In general, the Year 4 students agreed that POLIE was an effective learning activity which highlighted the important topics in the Paediatrics rotation. The content was pitched at an appropriate level with engaging facilitators conducting the POLIE face-to-face tutorials. On the other hand, the standardised content assisted the facilitators to assess how students were going with their general paediatric learning. They suggested including other topics, for example, immunology and dermatology in the future development of the POLIE modules.

Conclusions
POLIE is well-regarded as an effective learning resource from both students’ and facilitators’ points of view. Further editing and adjustment in terms of the length of each module and a few technical issues are suggested.

Keywords: Curriculum development, and learning and teaching
Background

In 2010-2012, The University of Queensland/Greenslopes Clinical School developed and implemented an interprofessional (IP) education curriculum consisting of case studies, role plays and mock ward rounds. The Case Study activity was extended by incorporating an online component. Five modules were developed; integrating content information from the case studies, questioning activities, critical thinking exercises, reflective practice exercises, and links to additional resources.

Summary of Work

A mixed method design was used to evaluate the IP curriculum. All students participating in the IP curriculum activities completed the survey pre and post their participation in the activities. This facilitated comparison between students who did and did not access the SBLi modules.

Summary of Findings/Conclusions

Of the 39 students participating in the broader IP program, 12 students participated in the online module activity, a participation rate of 31%. Results from the RIPLS and IEPS demonstrated students using the online modules scored higher positive results in a majority of instrument subscales, when compared with non-participating students. Qualitative feedback indicates the modules provided opportunities to reinforce and extend learning, and as a valued source of additional information and resources.

Take-home messages

Online case study modules can improve outcomes and enhance student interprofessional learning experience.

Themes: Interprofessional Education, Curriculum Development
Background

The assessment form used by Queensland Health in assessing interns has recently been criticised for lacking validity and reliability as a summative assessment tool. However, the form also plays a major role in framing formative feedback.

Summary of work

In a workshop, supervising clinicians are shown an AMC scenario showing an intern providing counselling to a patient. The participants rate the junior doctor's performance on the counselling and professionalism domains using turning point automated response technology. The results are depicted graphically. Discussion includes how ratings are determined and how constructive feedback would be provided to the intern, including the concept of positive critiquing.

Summary of findings

Ratings were varied, with quite wide ranging views on why the performance justified the assessment rating identified. Participants had difficulty in providing specific, feedback linked to professional behaviour.

Conclusions

The provision of effective formative feedback is central to a successful intern year; yet is often poorly done. There is a degree of subjectivity in assessment which needs to be both acknowledged and addressed, especially when assessing the professionalism domain.

Take home message

Assessment processes needs to be transparent with clearly articulated evidence and specific formative feedback provided, especially when assessing the subjective nature of unprofessional behaviour as a formative learning process.

Themes: Assessment/ Professionalism
Background

Research suggests that telehealth may offer a range of benefits to various parties involved in the care process: patient, doctor, family and health systems. The Australian Government’s initiative to reimburse telehealth consultations in 2011 intended to attract GPs to use telehealth in their routine practice. The lack of education and training has been identified as a significant barrier for the uptake of telehealth.

Aims

To understand telehealth related educational needs of GPs in Australia.

Methods

An online survey was distributed to all Australian GPs through Medicare Locals.

Results

60 questionnaires were completed by GPs from Victoria, New South Wales and Queensland. The majority of respondents were rural and regional. 85% of participants said that the introduction of MBS items for online consultations motivated them to consider practicing telehealth. 43.8% of GPs thought that 5-10% of their current work is suitable for telehealth.

64.5% respondents rated their understanding of clinical telehealth is none or minimal. 95.5% GPs never had any formal education or in telehealth. The majority of GPs (81.8%) believed that education and training would help them to learn how to practice telehealth. Nearly all respondents were keen to receive education and training in telehealth. The preferred education option was short CPD courses in telehealth.

Conclusions

Appropriate education and training components can be helpful to encourage GPs to use telehealth.

We acknowledge the funding provided by the CMEDRS to conduct this study.
INTERNATIONALISATION AT HOME IN MEDICAL EDUCATION
- A DAUNTING TASK FOR MEDICAL SCHOOLS

Alexander Stuetz
PhD Candidate, School of Medicine

Background

The UQ School of Medicine is known as ‘Australia’s Global Medical School’ and other medical schools also claim to be ‘international’. What exactly is meant by these terms in relation to medical education? What makes a medical school global or international?

Summary of work

Often internationalisation is understood as being equal to student mobility (de Wit, 2011). A more comprehensive approach to internationalisation within the curriculum needs to be considered in order to equip all medical students with the international and intercultural knowledge, skills and attitudes required in a globalised world.

The concept of ‘internationalisation at home’ (Nilsson, 2000, 2003) specifically addresses learning opportunities for all students - not only for those who are mobile. However understanding and implementation of internationalisation at home is multifaceted and depends on the disciplinary, institutional and national context (Leask, 2012; Wächter, 2000).

Summary of findings

This session will discuss context-dependent approaches to internationalisation in medical education and the need for globally orientated medical schools to engage with internationalisation at home in the medical curriculum.


Theme: Curriculum Development
Introduction

Student experiences of ethics and professionalism during clinical placements have a powerful influence on their future attitudes and behaviour. An erosion of medical student moral sensitivity during clinical attachments has been postulated. However, the literature exploring attachment experiences has relied heavily on student essays, and there is little information about Australian medical student experiences.

Method

Australian medical student encounters with ethics and professionalism in urban general practice were explored using tutor logs of issues raised by students for discussion in weekly tutorials during general practice placements.

Results

Forty-three medical students participated in the study and 76 hours of tutorial time were logged. Students reported a range of ethical issues in relation to complex consultations and practice management. Emergent themes included mixed messages, the scope of general practice, and the ‘student predicament’ (including unsettled boundaries, emotional reactions, and personal health concerns).

Discussion

The extent of compromise in general practice may challenge student expectations. Tutorials are a useful forum for students to raise and discuss ethical and professional issues. Our findings provide a framework for clinical teachers and tutors to identify any factors which might have a detrimental impact on student moral enculturation, and to reflect on teaching, mentoring and role-modelling.

Themes: Professionalism, Learning and Teaching
Background

The Community Medicine program arose out of the need to find an alternative but equivalent training course to that of the Year 3 Rural Medicine rotation within the UQ MB BS degree.

It is a truism that those most in need of healthcare often receive it least. The focus therefore was that of teaching students how to understand, care for, and manage those patients who were disadvantaged or underserved within the community. Treating patients as unique individuals in society is a key component of this goal – hence the name “Medicine in Society”.

Summary of work

The rotation commenced in 2010 with just two subject areas, and about 20 students across 4 placement sites, but has expanded in 2012 to four subject areas, for over 130 students, across all UQ Clinical School locations, including Ochsner, New Orleans.

Students can currently undertake attachments in Rehabilitation and Palliative Care, Aboriginal and Torres Strait Islander Health, Refugee and Migrant Health, and Geriatric Medicine.

Effective teamwork and collaborative interprofessional practice are integral and highly important components of all subject areas. This is built into the educational program through both formal and informal mechanisms. An example of the latter is clinical team meetings but it is the formal process, known as the Health Project, which will be discussed.

Strong engagement with the training site organisation’s goals, healthcare personnel and users, making a worthwhile personal contribution, establishing a positive learning environment and laying the foundations for successful future interprofessional practice are the true goals of the Health Project.

Conclusions

The impact and efficacy of this educational approach can be demonstrated by showing a number of Health Projects completed by students in the various subject areas. These can perhaps then provide areas for discussion.
Background

In 1997, the medical program at The University of Queensland changed from a discipline-based undergraduate degree to a graduate program built around problem-based learning (PBL); an approach which has remained largely unchanged since then.

Summary of work

In 2011, the School of Medicine’s Clinical Lead Educator team introduced additional cases into the second semester of second year of the MBBS program to supplement the central PBL cases. This was implemented in response to anecdotal evidence from PBL tutors that by the middle of 2nd year, students were becoming a) bored with PBL and b) too focused on the "case of the week" to the detriment of other key learning issues.

Encouraged by the feedback on these additional cases, a more extensive trial was introduced in 2012. Focused pre-readings were provided, the central PBL case of the week was simplified to allow for discussion within a single tutorial session, and the structure of the additional cases was standardised. This methodology is consistent with case-based learning (CBL), where the acquisition of knowledge precedes its application to cases.

Summary of findings

Students and PBL/CBL tutors were surveyed on their opinions of this approach, and the findings from this survey (still underway at time of abstract submission) will be reported.

Themes: Curriculum development, Learning and Teaching
‘TO ERR ON THE SIDE OF COLDNESS’ - HOW FOURTH YEAR UQ MEDICAL STUDENTS LEARN TO EXPRESS COMPASSION IN THE CLINICAL CONTEXT.

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⁴MBBS Program Research Coordinator, UQ
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Background

This study explores how 4th year medical students at the University of Queensland perceive they learn to express compassion in the clinical context.

Summary of work

An email linked to survey monkey invited all 401, Year 4, UQ SOM students to participate in the following reflection, “What have been the main influences (positive and or negative) in how you have learned to express compassion for your patients when working in the clinical context”?
A box was provided for free text responses. A thematic analysis was undertaken.

Summary of findings

Fifty-six students wrote about a range of factors which influence how they learn to express compassion. Extending beyond the clinical role model, students’ reflections highlight what they bring to medicine, what they aspire to be and what they fear they will become.

Conclusions

Influential role models and pivotal learning experiences come in many forms and shapes. A range of people, places and events were identified as dominant themes within the reflections. Many participating students felt strongly that they came to medicine with compassionate attributes shaped through personal experience. What they aspired to learn is how to express these appropriately in a clinical context.

Take home messages

What you teach as a clinician or academic teacher is only a small part of what is being learned – you are being closely watched.
We need to move beyond asking can compassion be taught to consider how we can support students in cultivating compassionate care.

Themes: Professionalism/Teaching and Learning
RADIOGRAPHIC ANATOMY IN PHASE 1 OF THE MBBS PROGRAM

Vaughan Kippers*, Peter Landy® & Gus Ferguson®

* School of Biomedical Sciences, UQ; ® Retired Radiologist; © Consultant Radiologist

Background

Interpretation of medical images, which are being used more commonly in modern clinical practice, requires a sound anatomical knowledge, so radiographic anatomy should be part of a gross anatomy course.

Summary of work

A symposium was held in 2007 at the School of Medicine, where introduction of radiographic anatomy into the MBBS program was discussed. Despite initial enthusiasm, it was difficult to find suitable times for these classes. After trials in late 2011, each student in Phase 1 has been scheduled to attend 5 sessions during the year in 2012, held between six and eight pm during the week. Despite the timing, all sessions have been well-attended.

Each session commences with presentations by two consultant radiologists, and there is time for students to view web-based materials (Imaging Pathways & An@tomy.TV) with tutorial help from a radiology registrar and resident doctors. Summative assessment has been held at the end of each semester in Phase 1, as part of the image-based examination.

Conclusion

The aim in 2013 is to build on the 2012 experience, to produce a formal syllabus for this part of the biomedical science courses, and to convince students to take advantage of the tutorial assistance available at all radiographic anatomy sessions.

Themes: curriculum development; learning and teaching
THE INFLUENCE OF COMPARATIVE FEEDBACK ON CONSULTANT MARKING

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Aims

1. To review quality assurance of our examination process
2. To compare marking at different clinical schools

Background

1. There is inter-examiner variability in exam marking
2. Often the marks do not reflect the performance of the student over the rotation noted by their own team
3. Other variables include type of examination (VIVA), individual case differences, student (e.g., performance anxiety) and examiner variability (level of training, expectations), clinical school for examination

Research question

Does providing consultants with feedback on their marking of medical students, through comparison with peers, assist in increasing the reliability of examiner scores?

Summary of Work

Data Collection

Pilot study - data on all examiners are collected from 2011-2012 (2 year period) when examiners marked in pairs (hence the mark was a collaborative one)
Raw scores given to students are tabulated and means calculated, as well as the number of failed students for each consultant also is also evaluated.

Feedback Sessions

This will commence in 2013. Feedback provided to consultants regarding their positions in the group will be given individually, so as to demonstrate whether they are comparatively harder markers (“killer falcons”) or easier markers (“doves”) or in the middle (“hawks”)

Outcome

Further data collected after sessions.
For each examiner before and after marks will be analysed to see if there is any difference in marking after the feedback sessions (assumed the assessment tasks remain the same as in 2012)

Conclusions

Awareness of marking scores in relation to colleagues may facilitate an opportunity to assist in increasing the reliability of exam results.

Themes: Assessment and scholarship of teaching
THE NEUROLOGICAL EXAMINATION: TRANSLATION FROM THEORY TO PRACTICE

Principal investigator: Dr Grant Kleinschmidt

Supervisors for this project: Assoc Prof Leonie Callaway
Assoc Prof Lata Vadlamudi
Prof Pamela McCombe

Background

The correct performance of the physical examination in medicine is a requirement for success in viva voce examinations in Australia. Of all the examinations performed the most daunting and perhaps controversial is the neurological examination. Factors such as the complexity of the examination, the level of difficulty synthesizing the findings into a pathophysiological and anatomical diagnosis and the perceived discomfort from the testing itself are inclined to promote neurophobia in students.

Research question

Do third year students demonstrate improvement in the technical performance of the neurological examination during the eight week general medical rotation?

Methods

The technical performance of the neurological examination is to be tested in two cohorts of third year medical students undertaking their general medical rotation at Royal Brisbane and Women’s hospitals. The format is a mini-OSCE with three stations testing cranial nerves, upper limb and lower limb undertaken at the start and conclusion of the eight week term. The students will be scored according to omission, poor performance or satisfactory performance of each component of the examination as listed in the School of Medicine Clinical Skills Handbook.

Results

Analysis of the first cohort of students is underway and will be completed in November 2012.

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