Beyond Google: Finding POEMS (Patient-oriented evidence that matters)

Background

Clinical questions arise frequently during medical consultations in primary care. Patients themselves frequently consult online resources as aids to self-diagnosis and self-management. Medical students should develop skills in identifying and evaluating evidence in reliable electronic databases, and in synthesising and summarising this evidence accurately to their patients and their clinical supervisors.

Summary of Work

We have previously piloted a module aimed at improving these student skills, delivered by trained librarian facilitators during the General Practice Rotation/clerkship. Students identify two clinical questions based on their experiences with patient consultations during the Rotation. They bring these questions to an interactive, hands-on session with medical librarians at their local campus, during which the librarians facilitate the students’ individual literature searches. The only change to the normal module is that students will be asked for permission for the researchers to use their pre and post module survey data. Quantitative data will be analysed statistically, and qualitative data will undergo a descriptive and thematic analysis.

Summary of Research Aims

1. To measure student and librarian opinion about the accessibility and usefulness of online medical resources.
2. To measure prior student knowledge and new learning about searching for POEMS
3. To evaluate the module, and determine whether librarian facilitators are acceptable to both students and librarians
4. To describe broad thematic areas where students search for evidence about clinical topics.
5. To compare findings between Australian and North American UQ MBBS medical student cohorts

Discussion

This evaluation of the module may lead to changes to enhance its effectiveness, including the effectiveness and acceptability of using librarian teachers to deliver the module. Findings from the thematic review of areas in which students search for evidence may lead to adjustments in curricular content.
Evaluation of student learning outcomes in an online undergraduate e-Healthcare course

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Keywords: Teaching and learning, curriculum, evaluation

Background
Despite growing interest in e-health, the integration of e-health in mainstream health care is limited. The lack of systematic education and training to develop appropriate knowledge and skills relevant to practising e-health has been identified as a key barrier. The purpose of this study was to evaluate student learning outcomes in an undergraduate level e-health course at The University of Queensland.

Summary of work
A pre- and post-course survey was conducted to understand knowledge and attitude changes of students, who enrolled in the e-Healthcare course during semester 2, 2012, relating definition of e-health, key areas of interest, major drivers and barriers to implement e-health.

Summary of results
Findings from the pre-course survey showed that the majority of students had no previous experience or involvement with e-health. When they were asked to provide a definition, over 80% of the respondents focused on the technological aspects. They identified ‘technological advancement’, ‘systems development’ and ‘business interest’ as key drivers of e-health, while ‘limited technological knowledge’, ‘inadequate training’ and ‘high cost of equipment’ as major barriers for wider use of e-health.

After completing the course, students were asked to identify the most beneficial topics in the post-course survey. Top five topics were: ‘types of e-health’, ‘practical examples for e-health applications’, ‘medico-legal aspects’, ‘steps for implementing e-health projects’ and ‘current evidence’. Students identified ‘current health care challenges’, ‘clinical needs’, ‘lack of health workforce’ as important drivers of e-health in contrast to technological advancement in the pre-course survey.

Discussion
The course refined knowledge about concepts, applications and processes relating to e-health. Students’ understanding about e-health has shifted from technological orientation towards care provision. The findings demonstrated that the intended goals of the course have been achieved, but further research is required to assess the effect of e-health education on knowledge, behaviours and practices of the students.
Exploring the consistency of judgement between examiners in performance-based assessment - A case study in medical education

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Background
Clinical competency assessment evaluates medical students’ ability in undertaking clinical tasks. There are a number of reliability and consistency issues when a grading approach is applied to assess student performance in clinical competency examinations. These issues are exacerbated by the fact that the majority of examiners are clinical practitioners rather than educators and they may have differing standards regarding student performance. This study aimed to explore the factors which may affect examiners’ judgement of medical students’ performance, and to recommend possible effective strategies in examiner training.

Summary of planned work
A mixed-methods approach will be adopted. Descriptive statistics are used to compare the marks given by the examiners in the Year 2 (pre-clinical) and 4 (final year) Objective Structured Clinical Examination (OSCE). Qualitative data will be collected by semi-structured interviews with examiners. Open and analytical coding is used to explore the factors that influenced examiners’ judgement of medical students’ performance in clinical examinations.

Discussion
Characteristics of examiners play an important role in determining the marks given to the students. Provision of effective and adequate training to examiners on performance assessment is necessary, particularly in assessing medical students’ clinical competency in high-stakes assessment. Evidence-based recommendations for, and effective strategies for use in, the faculty development of teachers in assessment, and examiner training are needed to improve the consistency and reliability of examiner judgement on performance-based assessment.

Key words: Clinical competency, performance-based assessment, teacher judgement, reliability
Title:
FINAL YEAR MEDICAL STUDENTS PERSPECTIVES ON THE IMPORTANCE OF CLINICAL DOCUMENTATION IN THE DELIVERY OF HEALTH CARE IN A PUBLIC TEACHING HOSPITAL

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Background:
Good clinical documentation underpins a number of key activities within the context of service delivery within a hospital. These include: effective communication between members of the clinical team both internal and external to the hospital, ensuring patient safety and supporting clinical audit and research that is aimed at improving clinical service delivery and patient outcomes. Clinical documentation also provides evidence of care delivery when the practice of medicine is questioned within a legal context. Finally, with the introduction of activity based funding, good clinical documentation supports the function of clinical coding and hence reimbursement of hospitals for services delivered to patients.

Oxentenko et al. (2010) report that 67.9% of internal medicine residents spend in excess of four hours in documentation. 56.5% of residents and 63.0% of program directors believed that feedback on clinical documentation occurred in less than 50% of cases (Oxentenko et al. 2010). These results are supported by Alromaihi et al. (2011) who found that residents spent 34 minutes per patient per day (based on a caseload of seven patients) on review of health records and clinical documentation. The time spent on clinical documentation by residents is significant and therefore education in clinical documentation should be a fundamental component within the medical student curriculum.

This study explores the perceptions of final year medical students on the importance of, and their preparedness to, document clinical care.

Methods:
4th Year medical students affiliated with the UQ Sunshine Coast Clinical School were interviewed in 2012/13 using a semi-structured interview format including closed and open ended questions. The transcribed interviews are currently being analysed to elicit key themes.

Results: Preliminary findings include - (i) the clinical documentation curriculum is inadequate, (ii) learning how to document clinical care on the job is problematic (iii) formal education on clinical documentation should occur in the clinical years, and (iv) systematic review and feedback on the quality of their documentation has a secondary benefit of improving the clinical knowledge of the student.

Key words: curriculum
Fostering and Inspiring Research Engagement (FIRE): A research incubator scheme for undergraduate allied health students.

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Research evidence supports the notion that active engagement of students in undergraduate research experience early in their training may better prepare them to pursue a research career commencing with an honours degree. In 2008 the Research Committee of the School of Health and Rehabilitation Sciences within The University of Queensland commenced a “research incubator program” to introduce academically capable occupational therapy, physiotherapy and speech pathology students to the idea of research, early in their undergraduate/graduate entry training. The current presentation outlines a program logic model for the research incubator scheme as a means of facilitating subsequent evaluation of the effectiveness of this initiative. Program logic is a form of program description which provides a means of depicting the theory of how a program, scheme or intervention works. It is commonly used by evaluators, either as an adjunct to an impact evaluation or as a stand-alone tool for summarising a complex program. In this presentation we aim to describe the application of program logic in depicting the way in which the scheme was designed to enhance student autonomy, provide a connection to the research community and build a sense of competence in relation to research processes. We will also identify the underlying assumptions and external/environmental factors that could potentially impact on the delivery and success of the scheme. The major components of the logic model will be described as inputs and resources, activities/outputs and outcomes (immediate/learning, intermediate/action and longer term/impacts). While immediate and intermediate outcomes chiefly pertained to students’ participation in honours programs, longer term (impacts) concerned their subsequent participation in research higher degree programs and engagement in research careers. Program logic was an effective tool for clarifying program objectives and detailing, from a theoretical perspective, how the research incubator scheme was designed to achieve its’ intended outcomes and impacts.

Key Words: Teaching and learning; research; interprofessional
Mapping the MBBS curriculum into clinical experience in general practice – what progress did we make?

Margaret Henderson, Susan Paul, Nancy Sturman, David King, Marie-Louise Dick, Mieke van Driel

Discipline of General Practice

Background

The Urban LInCC project is an HWA funded project which aims to provide an integrated longitudinal learning experience for MBBS students in clinical practice. In 2012, 3rd year students were placed in a general practice for 1 day per week whilst rotating through their other rotations. This gave them an opportunity to get to know patients overtime as well as attend private specialists and allied health practitioners. As general practice encounters a wide range of conditions related to other specialties, we aimed to map the curriculum of the year 3 specialties into the Urban LInCC GP placement.

In 2013, this opportunity was extended to 2nd year students for ½ day per week over 13 or 26 weeks with a focus on learning clinical skills. The curriculum mapping for this cohort focused on integration of clinical exposure and PBL cases.

Methods

We describe the process of curriculum mapping and how this was applied to enhance the students’ learning experience.

Results

Four documents related to mapping and integration were produced for 3rd year and 1 document for 2nd year. The main issues included difficulty accessing the information and matching the differing formats and level of detail.

Conclusion

This exercise has demonstrated the value of mapping by revealing gaps and overlaps within the curriculum. It also enabled us to identify links between other specialties and general practice and between PBL tutorials and clinical skills learning. Further mapping across all the MBBS years has the potential to provide far greater integration of learning and possibly more cost effective allocation of resources.

Keywords: Teaching and learning, Curriculum
In 2011 Wesley Clinical School developed SkiP.MS (Skills Program for medical students) which is centred on the delivery of skills education sessions by clinicians from a broad range of disciplines, principally nursing and medicine, midwifery, and pharmacy. The broad approach is for a student to possess adequate background knowledge; to use simulation modalities for initial skill acquisition, and then demonstrate application of the skill under supervision in the clinical setting. The sessions supplement bedside clinical teaching from medical specialists and formal tutorials given by medical specialists.

SkiP.MS delivered two sessions weekly over a 44 week academic year for students undertaking a concurrent clinical placement. Contents of the program are based on multiple sources. A learning needs analysis was conducted with the prospective students and a group of multidisciplinary clinical educators. University curricula were reviewed to ensure efficient use of resources and that topics appropriated university requirements. Overall SkiP.MS like other simulation based education programs supports learning through simulation aiming to increase knowledge, enhanced critical thinking, improve skill performance and increase self-confidence.

Evaluation of the program is based on the Likert scale and focuses on three areas of self assessment: knowledge transfer; skills acquisition or practice and session delivery including the facilitator’s performance. This occurred before and after each session. Session delivery factors evaluated suitability of the environment, self assessment of engagement and a ‘global’ assessment of effective learning.

Students demonstrated they valued the program by attending (non compulsory) sessions. Learners reported the skills in the program had relevance to their current study and future clinical work. The sessions provided opportunity for each student to learn and practice skills.

SkiP.MS provides an opportunity for developing human factor skills such as working within a team, learning about roles and leadership and the value of communication. This is facilitated by the multifaceted, multidisciplinary approach and delivery of the program.

Keywords:
Teaching and learning
Interprofessional

Authors:
Sarah Arnold; Charley McNabb; Julia Schulz; Marianne Cannon
Protected Opportunistic EMeducation for Medical Students (POEMS)

Authors: A Prof Wayne Hazell (Supervisor), Dr Mark Harkin (ED Medical Education Registrar), Dr James Schabort (immediate past ED Medical Education Registrar).

Background:

Emergency Medicine (EM) is a rich environment for learning but it is often busy and chaotic. As such students may observe many interesting clinical events but there may not be time to deeply discuss and analyse these with the busy clinical supervisor. To counter balance this, the EM medical education registrar implements a weekly POEMS program.

Work to date:

Prior to these sessions the EM medical education registrar canvasses the department for interesting and current cases. Upon meeting the student group a variety of activities occur including: 1. Observing major resuscitations and the management of the critically ill; 2. Teaching by the bedside; 3. Direct observation of student performance; 4. Active investigation analysis and interpretation by students; & 5. Students planning patient management and receiving feedback.

Discussion:

At present in 2013 we are fine tuning the techniques utilised and then plan to go on to evaluating the program in 2014. Techniques that are currently in use include: 1. Talking aloud as a model of demonstrating clinical reasoning; 2. Expert Socratic narratives of observed events; 3. Encouraging reflective and deep learning; 4. The bedside trialogue (student, patient, teacher); and 5. Exploring the Dreyfus model of competency & Millers pyramid per student per patient event.

Some of the narratives and techniques will be discussed in this presentation.

Conclusion:

A poem is a descriptive narrative that often helps us reflect and understand the subject. It is hoped that this POEM program and its narratives between the teacher and the student assist in a deeper understand of the rich learning events in EM.

Key words:

Teaching and Learning; The Scholarship of Teaching
Abstract

Removing the interview for medical school selection leads to gender bias among enrolled students

Background

Selection processes for entry into medical school are continually under scrutiny, not only for predictive validity, but also for equity and fairness. Australian medical schools use combinations of prior academic performance, standardised admissions tests and interviews. All schools admitting graduates use the GAMSAT. Prior academic performance has the highest predictive validity; evidence suggests that interviews have poor predictive validity; while questions remain about GAMSAT predictive value. Reports have also shown a modest but statistically significant gender bias in favour of males. In 2009, following analysis of its validity and utility, the interview component of the selection process was discontinued at The University of Queensland (UQ). In this study we report a consequent change in the gender ratio among enrolled students and analyse the underlying reasons.

Design, setting and participants

Cross-sectional study of 4051 students admitted to the medical program at The University of Queensland between 2004 and 2012. Students were enrolled either directly as graduates or via a school-leaver pathway.

Results

In the years 2004-08, 891 (51.4%) medical students admitted were male, whereas after the interview was discontinued (2009-2012), 1134 (57.7%, p< 0.0001) were male. This change in gender ratio was limited to domestic direct graduate entry students, and the male proportion in this group rose from 50.9% (705) before to 64.0% (514, p< 0.0001) after removal of the interview (reaching 73.8% in 2012). Between 2004 and 2012 males consistently performed better on GAMSAT section III (mean score 71.5 vs. 68.5, p<0.0001).

Conclusions

The proportion of males enrolled in the medical program at this university increased markedly following removal of the interview from the selection process. This change is limited to domestic direct graduate entry students, and seems to be due to higher scores by males in section III of the GAMSAT. The interview may play an important role in ensuring gender equity in selection and medical schools.

Key words: assessment, research
Title: The Impact of Formative Oral Case Presentations on Students’ Preparation for the Year 2 Objective Structured Clinical Examination (OSCE).

Authors: Lane MA, Wong WY & Schafer J.

Background: Well-developed oral communication skills are essential for medical professionals. A gap has been identified in the learning activities of Year 2 Clinical Practice courses (MEDI2021 & MEDI2022) relating to communication between medical professionals i.e. oral case presentation. The capstone Year 2 OSCE is an assessment of clinical skills, including oral clinical reasoning, however, it has not been clearly articulated where the students will learn this skill during the course. It has been assumed that students will acquire these skills during their clinical coaching sessions in Year 2 without any formal instruction or feedback. In response to this curriculum gap, we introduced an Oral Case Presentation as formative assessment in MEDI2022 (Clinical Practice 2). It has been integrated into the Summative Portfolio Assignment, with the students presenting their written Long Case as an Oral Case Presentation to their clinical coaching group and tutor. This new learning activity is designed to provide students with the opportunity to practise oral presentation skills in a safe, structured environment prior to their Summative Objective Structured Clinical Examination.

The purpose of this evaluation is to determine the impact of this learning activity on students’ self-reported readiness (knowledge, confidence and experience) for the Year 2 Objective Structured Clinical Examination.

Methods: A pre-and post-survey research design was employed utilizing the Participant Perception Indicator (PPI), a validated evaluation tool which was individualized for this project. Students were recruited to participate in the research project by a Blackboard announcement from the course co-ordinator. Online surveys were distributed by email to the MEDI2022 cohort (approximately 520 students) prior to commencement of the Oral Case Presentations (Weeks 1 & 2) and the post-survey was distributed in Weeks 13 & 14.

Summary of Results: Analysis is underway and will be completed by the date of the T&L conference.

Conclusions: Not yet available.
The Lived Experience: Impact of co-presentation by people with disabilities on students

Miriam Taylor, QCIDD, School of Medicine

Many people with disability, especially with intellectual disability, experience poor healthcare. A contributing factor is the practitioner’s lack of understanding of disability, and the expression of commonly held misconceptions through negative attitudes.

Our practice at QCIDD is to co-lecture with people with intellectual disability and their families to undergraduate students in the health professions. Responses from students and course coordinators indicate a genuine appreciation for the learning gained in these lectures about the lived experience of having a disability and the practical clues to better communication in consultations.

There is a growing literature on the benefits of presenting both theory and lived experience especially from vulnerable populations to students within the health professions.

This presentation will illustrate discuss the literature and the Centre’s experience of co-presentation with people with intellectual disability.
USING STUDENT-CREATED DIGITAL MEDIA ASSESSMENT TASKS TO ENHANCE UNDERSTANDING OF BASIC SCIENCE CONCEPTS: A CASE STUDY.

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Background

Students in tertiary-level introductory science courses often don’t progress beyond poorly structured mental models of foundation concepts since they have little time to construct meaning or acquire representational competence. The didactic teaching methods commonly used also encourage a surface learning approach. This can be problematic when students try to build on these key concepts in further programs, such as medicine. Innovative learning and teaching methods that foster higher-quality learning outcomes are important to facilitate students to gain a deeper understanding.

One clear message from published research is that students have greater learning gains when they generate and actively engage with their own representations rather than those delivered by an instructor. Student-created digital media tasks allow students to explore key concepts in detail and promote a deep approach to learning of content.

Summary of work

We implemented a student-created digital media assessment task into a large undergraduate chemistry course (n=365); the cohort included pre-medicine students. Students created a 2-3 minute video blog (vlog) to explain the structure and properties of a molecule/substance, using a representation of the structure as a visual aid. The learning design drew on constructivist theories and aimed to enhance student engagement and strengthen understanding of chemical structures through external representations and explanations.

We explored the role of videos on student understanding and communication of key concepts from three perspectives: student acquisition and application of scientific terminology; external representation of structures; and the nature of the audience.

Summary of findings

Students who created and engaged with physical structural representations to support their explanations in their vlog demonstrated a better understanding of related concepts. Students had an opportunity to be creative with some outstanding visual presentations, reflecting the diversity of students enrolled in the course.

From an instructor’s perspective there were multiple benefits to using this assessment task: students’ learning outcomes were improved with no face-to-face teaching required and a minimal need for technical tuition.

Conclusions
Student-created digital media assessment tasks can be used in large classes as an efficient use of limited teaching resources to provide an engaging learning opportunity for students that enhances understanding of key concepts.

References
