

Theme: Assessment across the continuum/ across borders

Rate of knowledge acquisition over 5 years

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In a 5 year undergraduate medical course with a PBL and spiral curriculum knowledge acquisition is measured with progress tests. Peninsula medical school has been monitoring the rate of growth of knowledge over the 5 years of the course. Data will be presented to illustrate that growth of knowledge. The data will be used to illustrate how there are some changes to that growth rate which might have implications for the timing of final or licensing examinations.

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Cultural values assessment in a training GP practice

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Learning environment and culture have been identified as the first theme in the new standards for training published in the GMC's Promoting Excellence document. Similarly, HEE have identified this as the first theme for their multi professional educational standards. Assessment of culture and values in an organisation can pose many challenges. We describe the use of a tool developed by the Barrett Values Centre to assess the culture of a successful training GP practice. This requires participants to choose their top ten personal values from a list of approximately 80. They then choose the top ten values that they feel describe the current culture of the organisation, followed by the top ten values they feel would be required for the organisation to achieve its maximum potential. A comparison between personal values and current culture is a measure of alignment of employees' values within the organisation. The difference between the current and desired culture can illustrate the views of the staff on how the organisation might develop in the future. We discuss the results of the survey and the positive impact they have had on aligning values in the practice. Results revealed a number of key themes which had not been anticipated prior to the implementation of the assessment. This has enabled development of an action plan to support all staff and learners to achieve their full potential in a compassionate and caring environment to the ultimate benefit of patients.

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The MRCGP International process (MRCGP INT)

***Prof A.C.Freeman, Prof Val Wass, Prof R. Withnall**

Introduction

Although family medicine (FM) curricula around the world have aspects of commonality, there are also country-specific differences that reflect varying cultural influences and healthcare delivery systems. The UK Membership of the Royal College of General Practitioners International

qualification (MRCGP[INT]) aims to achieve standardisation through assessment methodology and validity, in order to enhance the standing of FM as a speciality and improve the quality of patient care. Has this been achieved?

Methods

The MRCGP[INT] process enables individual sites to develop assessment methodologies that are appropriate for their country/region. Assessment experts make site visits to help support educational development and the establishment of rigorous examinations consistent with international standards. Different external UK evaluators then assure the process and accredit the examinations.

Results

MRCGP[INT] currently operates in eight sites over four continents. Over 800 doctors have achieved the MRCGP [INT] qualification. We will present data illustrating: the types of assessment chosen by different countries; the varying amounts of time and support required to reach accreditation; and the parameters chosen for evaluation. Changes that have occurred as a result of the process will be presented, including inter-site support and impact.

Conclusions

The expanding UK MRCGP[INT] programme illustrates the importance of empowering the contextual development of FM accreditation within its local health care system and culture.

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AMSE - Quality Assurance Initiative

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AMSE is the Association of Medical Schools in WHO Europe, a region of 54 countries. Currently, students are trained at about 500 medical schools in WHO Europe. The number of medical schools worldwide and in Europe has increased in recent years significantly, among them many private/profit medical schools without own research.

Medical education in the different countries varies, considerably in the length of study, the training program including teaching and examination formats, state examinations, scientific orientation and the cooperation of the medical school with affiliated teaching hospitals and community practices.

Also the quality standards of the education programs and the institutions involved in the education (school, hospitals, and community practices) as well as the quality control and quality recognition are country specific. Accreditation by nationally recognized accrediting agencies occurs only at about 50% of the medical schools.

The European Professional Qualifications Directive (2013/55/EU - 2005/36/EG) defines as ""quality"": ""Basic medical training includes at least five years (can also be expressed in the corresponding number of ECTS credits) and consists of at least 5500 hours of theoretical and

practical training at a university or under the supervision of a university. Furthermore, the Directive includes the automatic recognition of formal qualifications of medical doctors with basic training within the EU countries, the introduction of a European professional card is planned.

AMSE is concerned that the lack of a Europe-wide common quality standard and common quality assurance program including recognition on the one hand and the automatic recognition of doctor's licenses on the other hand might lead to a risk of patients and health care system in the future. Therefore, AMSE calls for the introduction of a common quality standard (WFME) and a common quality assurance program across Europe.

Developing a Cross-Border Assessment Collaboration in Global Health

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This paper reports on a project designed to develop an assessment collaboration between medical schools in both Australia and the United Kingdom in the content area of Global Health. The work involved universities in Australia and the UK, developed an Assessment Framework for assessing Global Health internationally, developed Item Specifications, undertook assessment item writing workshops, built in a process of review, and resulted in the development of a focussed suite of assessment items.

This paper provides an overview of the processes undertaken in developing this collaboration. It begins by providing a brief background to the project, the rationale for the Global Health focus, and highlights the partnerships that the project developed. It then outlines the aims and objectives of the project. Importantly, the aim of the project was to improve and share assessment practice in the Global Health arena. The goal was to 'pool resources' to work with and for the participating medical schools to produce a suite of high-quality and relevant assessment items that could be used by the schools in whatever context they wished. The approach taken in the project will be detailed, following four broad stages: Defining Global Health and building an Assessment Framework; Specifying Item Parameters; Development of Items; and Consolidation of a Suite of Assessment Items.

The outcomes of the project are presented, along with reflections on the implementation and outcomes of the work. While the area of Global Health seems suitable for collaborative assessment across borders, a number of key issues were identified throughout the project. These key issues will be identified, both in relation to the content of Global Health, and to the process of more general cross-border sharing of assessment materials.

Equalities and differences in the curricula of the Dutch Progress Test Consortium members.

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Four times a year, about 10,000 students of five distinct universities participate in the Dutch Progress Test of Medicine to measure their acquired knowledge. A Progress Test examines the knowledge at the level of the end of the curriculum. In contrast to a 'normal' final exam, all students participate, irrespective of the year they belong to. The increasing knowledge level of the individual student is reflected in an increasing score over the years. Judgement is based on a comparison

between students within the same cohort. The Dutch Progress Test consortium has developed this test, in close cooperation with medical schools, however, local curricula differ, as do the practices of the boards of examiners. The information that is gained by progress testing can be used at several levels. We will focus on the comparison of different student cohorts of one university and student cohorts of different universities. In this way, insight into the results of the various curricula can be obtained. Moreover, curriculum changes can be monitored and effects, positive or negative, can be demonstrated at the university level. Over the last four years, three participating medical schools have undergone intensive curricular changes. What can we learn from the differences in scores between the respective cohorts of students?

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Theme: Professionalism including diversity & Performance based assessments

Setting the standard for a new assessment: comparing outcomes using the Angoff, borderline regression and Cohen methods

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One of the most challenging and technical aspects of assessment design and delivery is defining the pass standard to ensure that individuals get the outcomes that they truly deserve. The consequences of selecting an inappropriate standard setting method, and setting a pass mark that is either too high or too low can be significant for the test-takers and, for professional examinations, all stakeholders in the field in which the test-taker has, or has not, qualified. The assessment literature provides guidance on the various standard setting methods available and the practical and theoretical considerations in selecting and applying a method that is appropriately aligned to the assessment context. However, this guidance can be difficult to apply in practice for new assessments. This is particularly the case when the new assessment consists of assessment tasks that are newly-created and their difficulty is untested; there are no prior measures of cohort ability; and the whole assessment infrastructure lacks maturity.

This paper describes these standard setting challenges in the context of a new, national assessment for clinical scientists. Three standard setting methods are used to model the outcomes of this new assessment to explore the impact on pass and fail rates. The methods used are modified Angoff, borderline regression and Cohen. The findings suggest that, in the context of a new assessment, the borderline regression method may lead to artificially inflated pass marks. Cohen and Angoff, although very different approaches to setting standards, seemed to produce similar pass marks. It is concluded that, for new assessments where there is uncertainty about the likely performance of each test facet, a blend of methods or a compromise method may be necessary.

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Examining Gender Bias within the Multiple Mini Interview Using Multifaceted Rasch Modelling

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Background

The Multiple Mini Interview (MMI) is the primary admissions tool used to assess non-cognitive skills at an increasing number of medical schools. While statistically significant gender differences in performance have been observed in a number of studies none have compared gender differences among candidates at the same ability level. This study examines gender bias among MMI stations using Multi-faceted Rasch Model (MFRM).

Summary of work

A total of 563 candidates attempted the Dundee MMIs during the 2014-2015 admissions cycle. MFRM was used to adjust MMI scores for candidate ability, examiner stringency or leniency and station difficulty. Differential Item Functioning (DIF) analysis determined whether male or female candidates at the same level of ability were more likely to achieve higher station scores. Interpretation of results was conducted from a

Summary of results

Separation-index reliability for the MMI was acceptable (.91) and separated candidates into 3 distinct ability groups. All 22 MMI stations showed a good fit to the Rasch model. DIF parameter magnitudes ranged from 0.01 to 0.28 logits, with measurement errors of between 0.06 and 0.12 logits. While three stations showed statistically significant DIF.

Candidate use of a feedback site and how that relates to examination performance

Woodhouse L, Kennedy D, Moss J, *Lunn B

Students surveys such as the UK National Student Survey consistently show a significant disparity between satisfaction with teaching and that for feedback and assessment. OSCEs do not lend themselves to providing personalised feedback in summative examinations. We developed a system to allow students to visualise and understand their OSCE performance. Beyond the initial investment in time developing this, the year-on-year academic time to use this system is minimal (less than two hours for a 20 station OSCE).

The site is well used by students with 65.94% of students visiting the site within 4 hours of result release and a mean of 2.95 visits per student over the following 4 months (range 0-15). Students valued both the amount of feedback available and the nature of it with significant improvement in satisfaction ratings (from 48% to 86% 'satisfied').

Students sit a 10 station formative OSCE after 4 months of Stage 3. They sit a further sequential OSCE at the end of the Stage. Feedback by station and skill domain was made available to all students. We analysed the correlation between student use of the site, how they used it and their performance at the end of year summative OSCE. We will discuss student behaviour in relation their initial exam performance and how that correlated with their end of stage performance.

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Re-Thinking Remediation: Using behavioural change theories to inform the development of remediation plans for doctors with performance concerns

***Prescott-Clements L, Voller V, Bell M, Nestors N and van der Vleuten C**

For practicing doctors, assessment is often experienced in the context of revalidation / recertification, whereby the outcomes are used as evidence to demonstrate that the practitioner is competent, safe and remains fit for practice. However, such assessment may also highlight areas of performance giving rise to concern. In this context, a comprehensive assessment of performance in the workplace, encompassing an assessment of the practitioner's health, behaviour, and working environment, might have a 'diagnostic' role in determining the extent of performance concerns which can then be used to inform the practitioner's requirements in terms of remediation.

Evidence suggests that performance concerns are often complex involving multifactorial issues, encompassing knowledge, skills and professional behaviours. It has also been established that practitioners may perform poorly, despite having the necessary knowledge and skills, and competence does not always lead to consistently good performance. In such instances, it is important that - where possible and appropriate - practitioners are supported through effective remediation in order to return them to safe, clinical practice.

A review of the literature on remediation demonstrated that research in this area is in its infancy, and little is currently known about the effectiveness of remediation programmes and the design features or implementation strategies associated with success. Current strategies for the development of remediation programmes are to mostly 'intuitive', with few being based upon established cognitive or adult learning theories.

In recognition that performance concerns in practicing doctors often include behavioural issues, we have used behavioural change theories to explore known barriers to successful remediation such as insight, motivation, attitude, self-awareness and the working environment and have developed an approach to the creation of bespoke remediation programmes which target these issues in addition to knowledge and skills development. This novel approach will be described, and the evaluation of initial pilot testing will be presented.

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Lessons from assessing Professionalism through monitoring Professional attitudes and behaviours

***Kennedy D, Lunn B**

Background

Demonstration of acceptable professional attitudes and behaviours is an expectation of graduates and a complex area of assessment in medical school. Building on the conscientiousness index, described by McLachlan et al. (2009), indicators of professionalism are monitored, reviewed and contribute to assessment of professional attitudes and behaviours. Adherence to procedures (including carrying identification and evaluation), adverse outcomes from disciplinary procedures (including assessment irregularities), attendance at compulsory teaching as well as reporting of unacceptable attitudes and behaviours (including attitudes and behaviours towards patients, peers and staff) contribute to the monitoring record.

Implementation

A Professionalism Issue Notice (PIN) form was devised and made available to staff. PIN forms enable staff to report professionalism issues ranging from punctuality issues through to inappropriate attitudes and behaviours.

PINs are scores between 1 and 10, depending on severity, by a professionalism review panel that meets three times a year. Where the acceptable threshold in the monitoring record is breached students meet a curriculum officer and agree an action plan for improvement.

Lessons learnt

There has been a significant resource implication in recording, collating and reviewing all monitored data.

Initially there was some resistance by some staff to complete PIN forms. A perception that completion of a PIN for something trivial could cause a student to fail was dealt with by reassurance that no student could fail on the basis of a single PIN form.

The student body generally accepts this form of assessment and view it as a fairer and more valid method than the reflective essay used previously. Student feedback centres around ensuring students can access their own PIN forms and monitoring record. We enabled this in the 2015-16 academic year.

The process helps early identification of students in need of support and referral to wellbeing services.

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Attainment in undergraduate Medical Sciences: does high school background and route of entry into the programme really matter?

***Rice NE, Brandom K, Taylor E**

The University of Exeter Medical School has a unique model for teaching Medical Sciences, based around small-group and problem based learning alongside self-directed learning. This study considers how high school background, choices of subjects studied and attainment prior to entry are associated with performance in the UEMS Medical Sciences programme. We also consider whether the route of entry into undergraduate study is associated with attainment.

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Theme: Preparedness for practice

Is a Secondary Task Method Appropriate for Measuring Mental Workload in Medical Students?

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Context

Mental workload (MW) is an abstract concept that sees cognition as a small and finite capacity to process conscious, logical thoughts. A secondary task (ST), an additional task added on top of the primary task, is one way of measuring MW. When workload of the primary task approaches capacity, ST performance will decrease giving an objective measure of MW.

Objectives

This study aims to validate the ST method as a measure of MW in medical students. It is expected that the measured workload will increase with task complexity.

Methods

Medical students from year 2 to year 5 at Cardiff University were recruited. The ST involved tapping the screen of an iPhone® when it vibrated at random intervals. The time taken to do this was recorded. Each participant completed four standardised tasks for a total of four minutes each, alongside carrying out the ST. Task 1 measured participants' baseline workload. Task 2 involved listening to a recorded history. Task 3 was undertaking venepuncture on a simulated arm and task 4 involved simulated venepuncture, alongside listening to another history.

Results

40 students were recruited. Measured workload increased with task complexity

Pharmacist-led video-based feedback to improve junior doctors' prescribing

***Mattick K, Farrell O, Parker H, Bethune R.**

Prescribing errors occur frequently and may have significant adverse consequences. Recent research highlights challenges faced by newly qualified doctors when prescribing medications in busy hospital environments. The important contributions of socio-cultural determinants of prescribing within hospital settings are increasingly recognised, such as the role of prescribing etiquette (Charani et al. 2013) and the medical hierarchy (Mattick et al. 2014). Junior doctors frequently enact the prescribing decisions of more senior doctors (Ross et al. 2011), often without understanding the rationale for the therapeutic choice. In addition, junior doctors report a shortage of timely feedback on their prescribing performance (Mattick et al. 2014). Some studies make recommendations for interventions intended to support junior doctors to reduce medication errors. A common theme in the recommendations is an enhanced role for pharmacists, who are knowledgeable about medications and the prescribing process but also sit outside the medical hierarchy. In this presentation we will summarise our current research which involves developing a video-based feedback intervention. Foundation Year doctors (in their first two years after medical school graduation) are filmed during a patient consultation involving a medication history and any subsequent parts of the prescribing process which occur away from the patient e.g. writing up the drug chart. The pharmacist then confirms the medication history and meets up with the junior doctor for a tailored feedback session. Together they review the video footage and the pharmacist asks a series of questions using a Self-Regulated Learning framework, designed to promote reflection and improvement planning. In this presentation, we will use Van der Vleuten's utility equation (1996) to explain how we have carefully designed the intervention with respect to its acceptability, cost and educational impact; why we have decided to emphasise validity over reliability; and what we have learned through the pilot work to date. Prof Karen Mattick*

The implementation of a national exit assessment for clinical scientists in the UK: challenges, hurdles and triumphs "As part of the Modernising Scientific Careers initiative, the National School of Healthcare Science was tasked with designing and administering an exit OSCE for trainees following each healthcare science pathway on the Scientist Training Programme (Level 7, leading to registration as a Clinical Scientist). In 2016 there are 27 different healthcare science pathways (across life sciences, physical sciences, physiological sciences and bioinformatics), and a total of 252 trainees in their final year. The number of trainees per science and per OSCE ranges from one in cytopathology to 33 in radiotherapy physics.

This paper outlines the challenges, struggles and triumphs experienced in creating and delivering these healthcare science OSCEs. These encompass a broad spectrum of issues from consulting and seeking consensus among stakeholders on the design of the assessment; the development of the policy infrastructure; technical issues such as the use of score weightings and standard setting; marking issues including the creation of a standardised mark scheme template and ensuring the quality and reliability of marking; the technology infrastructure, which required a data mark capture system that could cope with the complexity of the whole assessment environment; and the training programme that was delivered to prepare over 300 assessors and station writers for this new and unfamiliar mode of assessment.

Some of the challenges were more easily overcome than others. Indeed, it is discussed how being unencumbered by legacy systems, investments, processes and preferences meant that there were opportunities to implement, from the beginning, some elements of good assessment practice. These included the introduction of on-screen marking, the use of domain-based mark schemes, and promoting 'intelligent' interpretations of the OSCE data. There were, however, a number of challenges; some of which remain unresolved.

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The implementation of a national exit assessment for clinical scientists in the UK: challenges, hurdles and triumphs

***Chamberlain S, Gay S**

As part of the Modernising Scientific Careers initiative, the National School of Healthcare Science was tasked with designing and administering an exit OSCE for trainees following each healthcare science pathway on the Scientist Training Programme (Level 7, leading to registration as a Clinical Scientist). In 2016 there are 27 different healthcare science pathways (across life sciences, physical sciences, physiological sciences and bioinformatics), and a total of 252 trainees in their final year. The number of trainees per science and per OSCE ranges from one in cytopathology to 33 in radiotherapy physics. This paper outlines the challenges, struggles and triumphs experienced in creating and delivering these healthcare science OSCEs. These encompass a broad spectrum of issues from consulting and seeking consensus among stakeholders on the design of the assessment; the development of the policy infrastructure; technical issues such as the use of score weightings and standard setting; marking issues including the creation of a standardised mark scheme template and ensuring the quality and reliability of marking; the technology infrastructure, which required a data mark capture system that could cope with the complexity of the whole assessment environment; and the training programme that was delivered to prepare over 300 assessors and station writers for this new and unfamiliar mode of assessment. Some of the challenges were more easily overcome than others. Indeed, it is discussed how being unencumbered by legacy systems,

investments, processes and preferences meant that there were opportunities to implement, from the beginning, some elements of good assessment practice. These included the introduction of on-screen marking, the use of domain-based mark schemes, and promoting 'intelligent' interpretations of the OSCE data. There were, however, a number of challenges; some of which remain unresolved.

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Ensuring students' preparedness for practice: a reflective framework for assessing capability

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Medical and dental undergraduate education emphasises the development of student competencies. Expected competencies are detailed in national guidance and presented as learning outcomes, separated into domains such as biomedical, clinical and professional. Each domain tends to be assessed separately, using predictable and familiar tools and settings.

In this presentation we will question whether competency based education and assessment adequately trains our students to practice in today's complex, ever changing healthcare environments. We will draw on research into students' preparedness for practice to demonstrate how just ticking the competency box' has often left young doctors and dentists unprepared and unsure how to tackle problems in the real world.

We will argue that we need to educate our students for 'capability' as well as competence. Building on the literature we will explore the nature of capability, its relationship to competency and the range of skills, such as the ability to formulate and solve problems in unfamiliar and changing settings, which underpin it. We will consider how capabilities are currently addressed (or not) within the continuum of assessment processes. Finally we will propose an assessment framework, which could be adapted to use in a range of assessment settings and which could support dental and medical students' in their journey to become capable practitioners in a complex and unpredictable world.

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Exploring the development of evaluative judgment: Illustrations from junior doctors' longitudinal preparedness for practice narratives

***Rees CE, Bullock A, Mattick KL, Monrouxe LV**

Continuous professional development is a critical constituent across the medical education continuum. Central to that is the development of learners' evaluative judgment:¹ 'the ability to understand work quality and apply those standards to appraising performance'.² Although medical students report better understanding of quality through peer-related observation, feedback and storytelling,² the potential of narrative for exploring learners' evaluative judgment is currently unknown. Innovative narrative methods in health professions education, such as longitudinal audio diaries,³ can provide learners with opportunities to make sense of their own professional development,^{3,4} with repeated acts of storytelling seen as an ongoing form of self-evaluative

judgment.¹ In this short presentation, we aim to explore what evaluative judgment means within the context of novice professional practice in the UK Foundation Programme, and how narratives can reveal the processes of evaluative judgments in medical trainees. We do this by analysing narrative excerpts from our GMC-funded study on junior doctors' preparedness for practice.⁵ Although most current literature explores evaluative judgment using experimental approaches,⁶ we hope that our presentation will encourage qualitative approaches for exploring evaluative judgment in professional learning.

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Developing an Assessment Strategy for the 21st Century

***Coombes L, Metcalf E, Masefield R, Davies G, Smith P, Riley S**

Cardiff School of Medicine is currently rolling out a new curriculum, known as C21 and designed to be a modern curriculum for the 21st century. As part of this process, assessment has been rethought with a move away from traditional models of assessment to better prepare students for foundation practice by supporting reflection and self-directed learning.

This session will discuss how the assessment strategy was developed and what it includes, particularly focusing on the principles of frequent low/rapid remediation and programmatic assessment it is based on. As part of the new strategy, updated clinical and knowledge assessments have been introduced with the aim of supporting student progression through frequent low stakes assessments and by providing detailed feedback within and across domain based assessment, while emphasising an integrated, holistic approach to patient assessment, clinical reasoning and care planning. The aim is also to create an assessment programme that strives for authenticity through formative, summative, simulation and workplace assessment. This allows progression decisions that are educationally, statistically, academically and legally defensible.

It will also discuss the challenges in implementing the strategy and ways in which these challenges are being overcome. Success will be measured through improvements to student survey scores and preparation for practice, while maintaining acceptance by stakeholders. Finally, it will examine the potential impact and implications of the forthcoming medical licensing exam on modern assessment programmes where traditional ‘finals’ have been phased out to support a more gradual transition into practice.

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Theme: Professionalism including diversity

Theme: Simulated patients/simulation

Transition to Parenting Course (T2P): The use of case-based reflection to assess skills in supporting parents through the transition to parenthood.

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Introduction

T2P is a simulated learning experience, which develops knowledge and skills to support parents through their transition to parenthood.¹ It was piloted in 2015 by a multidisciplinary faculty; aimed to facilitate inter-professional learning amongst candidates.

Reflection is essential for effective learning, to develop insight into our practice. ‘It is not sufficient simply to have an experience in order to learn. Without reflecting upon this experience it may quickly be forgotten, or its learning potential lost. (Gibbs 1988)²

Methods

Candidates are required to complete pre-course reading, followed by group discussion. Each candidate then participates in one of a variety of simulated role-plays, using actors. The scenarios are designed to challenge the candidate's communication skills, in a realistic setting. They include: adjustment to role of parent, relationship issues, support, anger, financial and housing difficulties.

Assessment is continuous throughout the day, including a personal feedback session. Each candidate must then submit a reflective piece, in order to complete the course. This should be a reflection on a new case, utilising the skills learned during the course.

Results

Reflective pieces are assessed using an adapted Gibb's model, 3 looking at: Description, Feelings, Evaluation, Analysis, Conclusions and Action Plan⁴.

Some examples of reflections: ‘...by actively listening...she really opened up’, ‘...my approach was different...in particular how they were coping as a couple’, ‘...knowledge to support, safety-net and signpost’, ‘...more confident in liaising with other members of MDT’, ‘I will continue to use knowledge from the course to facilitate more meaningful consultations.’

Conclusions

Reflection is a useful tool, which encourages and consolidates learning across specialities. Assessing the benefits of multi-professional learning is difficult, but the positive feedback highlights the use of assessment in this area. We continue to draw on the experiential learning opportunities, to improve outcomes for parents and professionals during this important period.

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The learners role in determining the fidelity of a simulation

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Background

Fidelity in clinical simulation is defined as the degree of similarity between the simulation and the workplace. It has been conceptualised in a multidimensional framework comprising of dimensions that can be manipulated depending on the learning objectives. One argument for high simulation fidelity is that it improves the learner's engagement, allowing them to more readily 'suspend disbelief' and act as if they were in real life. The assumption is that the higher the fidelity the closer the match in behaviour in simulation to the workplace. It could follow therefore that there is an association between participants' behaviour deviating from 'real life' and lower fidelity. As part of a study examining learners understanding and experiences of fidelity in clinical simulations this paper presents early results exemplifying influences on learners' behaviour in simulations.

Methods

Three final year medical students took part in in-depth semi-structured interviews into their experiences of simulation and simulation fidelity. The interviews were transcribed and are undergoing coding to develop overarching themes. Ethical approval was obtained through the University Ethics committee.

Results

Initial data coding revealed moments where each student recalled acting differently in the simulation than they would have done in 'real life'. In exploring their reasons for one theme emerged from the data relating to their preconceptions around the purpose of the simulation activity - what was being assessed and what the learning objectives were.

Discussion

Demonstrating differences in behaviour may give us deeper insight to the determinants of fidelity in clinical simulations. Based on these results, the learner plays a role in determining fidelity of a simulation. This is important as it may cause us to focus less on manipulating the environment, but rather on how we frame the simulations for learners so they are more inclined to act as they would in real life.

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Safe and Effective Clinical Outcomes clinics in primary and secondary care: students' perceptions of their educational value

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Background

Untimed simulated surgeries in a general practice setting focussing on safe and effective clinical outcomes were first developed and introduced into undergraduate medical education in Otago, New Zealand (1). With agreement, we extended the concept and included a secondary care version for final year students. The clinics give opportunities to manage entire consultations and to make and implement clinical decisions with simulated patients (SPs). Faculty support is available in the form of 'simulated colleagues'. Formative feedback is given by the SPs on the achievement of pre-determined outcomes from a patient's perspective, and from faculty on clinical decision making, medical record keeping and case presentation skills.

Aim

To explore students' perceptions of the educational value of SECO sessions in both settings.

Method

Ethical approval was obtained. Students were invited to take part in semi-structured group interviews immediately after their sessions and to give written feedback. Analysis was thematic, the themes arising from the data.

Results

We have data relating to 64 students in primary care and 194 in secondary care from pilot studies. These suggest that students enjoyed the clinics and wanted more of them in both settings. They identified gaps in their knowledge and recognised the unprecedented opportunity to develop the skills needed to make clinical decisions, to take responsibility for them and to handle uncertainty as a result of having to manage the whole consultation without being able to 'play the student card'. The fictional contract was powerful. Students found feedback from faculty and SPs useful and most had plans to implement or develop their learning. For the majority, there were positive impacts on perceptions of self-efficacy. Negative comments related mainly to logistical issues.

Discussion

These clinics provide opportunities for learning and practicing, in an authentic setting, skills which students need to be prepared for their foundation years.

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Crossing boundaries: can the OSCE method work in the context of healthcare science education in the same way as medical education?

***Gay S. Chamberlain S**

The Modernising Scientific Careers (MSC) initiative was implemented in the UK in 2009 to provide a common framework for the education and assessment of the healthcare science workforce from

Level 2 (school-leaver or young apprentice) to Level 8 (Consultant Clinical Scientist). Much of the structure of MSC mirrored that of the Modernising Medical Careers initiative that was implemented in 2005. This included the mirroring of assessment methods for workplace-based assessment (e.g. Observed Clinical Events and Direct Observation of Practical Skills) and the OSCE which is used as an exit assessment for the Scientist Training Programme (Level 7, Clinical Scientist).

The OSCE method is used across multiple healthcare sciences (27 sciences in 2016), with trainees required to complete three common 'shared skills' stations, and nine stations that are unique to their science specialism. Bearing in mind that the quality of assessment outcomes is determined by the quality of assessment inputs, and also mindful that medical education OSCEs differ in their design, this paper lists and compares some common features of OSCE design and delivery across the two contexts. These features include the types of station tasks, the number of stations, station timings, the use of actors and equipment, standard setting and common indicators of performance. This comparison shows that the healthcare science context is not quite comparable to medical education and that this presents some unique challenges when using the OSCE method.

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Two birds, one stone - Using Podcasts as Assessment & Learning Tools in Dental Education

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As the use of technology increases in teaching and learning, there is more need to use technology in assessments to make it not only relevant but also engaging for postgraduate (PG) dental students.

The aim of this presentation is to discuss the use of podcasts as an assessment and learning tool for PG students studying MA Dental Law and Ethics at the University of Bedfordshire, the only university accredited course designed for dental professionals.

Background

As a blended learning course that combines face to face teaching with online learning, the assessment strategy allows students to use technology where they are asked to submit a 10-minute podcast as part of 'Ethical Dental Practice' module. Students have the flexibility to select an ethical principle and offer a critique of that principle from an ethical and philosophical viewpoint with a reference to its application to their dental practice.

Using Podcasts

The podcast offers students an opportunity to present their views in a different format to the standard essay approach. Clinicians are often asked to be interviewed in the local media to present their views reflecting on dental practice in one way or another. Submitting a podcast allows students to practice and rehearse new skills and it could be simply recorded on their smart phones. On completion of the task, each podcast becomes an educational resource. Overtime, a digital resource is available to use as an online audio library.

Conclusion

The use of new technology in assessments is not a goal in itself. However by using podcasts, the technology enabled the assessment of learning and supported students to develop new skills that

are relevant to practice. It also assisted the development of an on-going, renewed database of digital audio resource that can be used in teaching and online learning.

Why I think caveman tribes set the standards for formative assessment neurophysiology of tribalism.

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It has been concluded that formative assessment does have positive impact on students' performance. There are also numerous reports of stress as one of reasons for poor performance during testing and in real life circumstances. There are also multiple reports that encourage building positive study, assessment and work environments.

This presentation will discuss the impact human species evolution as tribal/social animals had on neurophysiology of human brain and how that explains why building positive environment for learning and formative assessment has strong positive impact on students' learning.

Emotions associated with performed tasks and perception of environment are crucial for transfer of sensed phenomena to medium and long term memory. Defensive strategies often employed in unsecure environment do not promote contextualized long term memory formation but rather evolvment of avoidance strategies.

Dopamine driven push towards short term goals if properly utilized can significantly increase internal motivation of students.

Serotonin mediated social behaviours often linked to social status, tribalism, belonging but also team achievements and self-confidence are also very potent motivators which lack dopamine mediated addiction-like undesired results.

Oxytocin often associated with building of social and family structures, trust and empathy may play a crucial role in development of professional or corporate identity. Secreted also while observing empathic or trust based behaviours may explain crucial role of role modelling and development of cooperation and team based social skills.

Above mentioned neurohormones play crucial role in development of self-driven, patient oriented, empathic physician. For them to play their role student needs to be 'inside' a safe zone, included in a positive way in tribal mechanisms. Each tribe does have methods for positive enhancement of socially acceptable behaviours. Our type of that behaviour should include formative assessment.

Proper understanding of neurophysiology helps to understand many observed or even measured effects.