VCC may allow for a more accurate approximation of actual DD of inhaled therapies when targeting a calculated ID for critical care patients. Supported by PUMS and Discovery Laboratories, Inc.

1006 FACULTY AND STUDENT PERCEPTIONS OF EVALUATION IN A GULF MEDICAL SCHOOL

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Background Student evaluation of faculty members' ability to provide quality learning experiences is required for both formative and summative purposes. The aim was to explore the perceptions of medical students and faculty towards and teaching evaluations.

Methods A 21-item questionnaire, adapted from the Schmelkin *et al.* (1997) inventory, evaluated learner and faculty perceptions of purpose, etiquette, confidentiality, outcome and attitude towards evaluation. A 5-point Likert-scale was used (1 = strongly disagree to 5 = strongly agree). Mean $\pm$ SD of the scale were compared using the Mann-Whitney test.

Results Fifty-two (54%) of faculty members and 80 (23%) of students completed the questionnaire. While both faculty and students strongly agreeing that there was sufficient security in terms of confidentiality in the online evaluation (faculty = 3.67 ± 1.0 vs. students = 3.59 ± 1.2), students, however, believed instructors could recognize individual student comments (3.23 ± 1.0 vs. 2.35 ± 1.1), ($p < 0.0001$). Students strongly agreed (3.56 ± 0.7) that culture allowed objective evaluation of teachers, while faculty were less convinced (2.83 ± 1.1), ($p < 0.0001$). Faculty believed more strongly that they made changes to their teaching in response to student evaluation (3.91 ± 1.0 vs. 3.40 ± 0.9 , $p < 0.0001$).

Conclusions While there was general agreement on the value of teacher evaluation, there were differences between faculty and students in terms of the confidentiality, what teachers did with their evaluation and whether evaluation led to improved practice. Educating teachers and learners of the purpose of evaluation as a transparent process for quality improvement is an imperative.

1007 USING STATECHARTS AND THE MODEL-VIEW-CONTROLLER ARCHITECTURE TO DEVELOP A NOVEL ON-LINE FULLY INTERACTIVE SIPAP DEVICE FOR TRAINING AND COMPETENCY ASSESSMENT

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Performance-based training and competency assessment of junior medical and nursing staff in the use of medical devices such as ventilators places significant demands on instructor time. The development of hi-fidelity on-line simulations of medical devices and clinical situations presents a new way for doctors and nurses to learn and be assessed.

State chart theory was developed to categorise and diagram highly complex flight systems in aviation. This design paradigm combined with the software engineering architecture of the model-view-controller allows for the creation of infinitesimally complex systems.

Such methodology was used to recreate the exact workings of the SiPAP infant flow driver (Carefusion, CA), which has been used to train and assess both medical and nursing staff in our unit, in a fully educationally 'safe' environment without an instructor.

The entire state chart for the device will be demonstrated as well as the working on-line simulator in an ePoster format.

Abstract 1007 Figure 1 Simulator

1008 OPPORTUNITY COSTS IN PAEDIATRICS: THE SPECIALIST REGISTRAR EXPERIENCE

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Background and Aims Recently, the pursuit of a career in Paediatrics has gradually suffered a decline. This observation prompted an evaluation of Specialist Paediatric Registrars' (SPR) perceptions of their training programme and its impact on them.

Methods Utilising an online questionnaire, all trainees in 2011 were surveyed through the RCPI database. Data sought included demographics, perceptions of career progression, work effectiveness, social impact of hospital-based training and potential career costs in paediatrics. Likert scoring (cuing at 1 not at all, cuing at 6 extremely), binary questions (scored as yes, no or unsure) and narrative options were used.

Results Fifty-three (71%) responses were obtained, with representation from each year of training. The mean Likert score was 3.8 for career progression, 4.6 for functional efficiency at work and 3.3 for attainment of a work-life balance. The value of log-books and end-of-year assessments showed positive skewing (Likert 5/6) in 8(15%) and 7(13%) respectively. Narrative responses indicated the most challenging aspect of training was time for academic pursuits 28(53%). Other concerns included relocation for 8(15%) and career uncertainty for 7(13%). SPRs cited exercise for 29(43.4%) and discussion for 19 (35.8%) as coping strategies. Thirty nine (73.6%) SPRs incurred personal costs in training with compromised family cited by half. Mean Likert score for cost acceptability was 2.8 and perceived preparedness for consultancy, post-training, scored 3.7.

Conclusion SPRs feel there is a need for change within their scheme and that paediatric training incurs significant opportunity costs, with ultimate career uncertainty.

1009 CLINICAL UNCERTAINTY AND THE PAEDIATRIC TRAINEE

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Background and Aims Uncertainty is at the heart of clinical practice and is encountered by trainees at all levels. This study explored paediatrics trainees' perceptions of uncertainty.

Methods Basic specialist trainees in Paediatrics were surveyed while attending a training day. The survey explored 4 aspects related to uncertainty which included factors in decision making, personal

impact of uncertainty, the response to colleague's clinical error and strategies to address uncertainty. Data obtained included gender and year of graduation. A likert scoring system was used (cuing at 1, not at all and at 6, definitely), to rate responses. A don't know option was also allowed.

Results Forty two (100%) trainees responded. The M:F was 1:2.9. The mean Likert scores for factors impacting on clinical decisions were 5.7 for clinical knowledge and experience, 5.4 for opinion of senior colleagues, 4.6 for fear of making a mistake, 4.2 for parent anxieties and expectations. Twenty one (50%) of trainees frequently reflect on cases when at home. Their confident decisions are modified by opinions of senior colleague mean likert score 4. Mean Likert scores for responses to error scenario by a colleague were sympathy 4.3, acceptance 4.4, and anxiety 3. Mean Likert scores for strategies to address uncertainty included enhanced teaching 5.9, enhanced clinical experience 5.8, knowledge of 'red flags' 5.7, mentoring 5.6, building resilience 4.9, and developing self awareness 4.5.

Conclusion Paediatric trainees are impacted by clinical uncertainty which transfers into their home life. Incorporating strategies in training to enhance coping skills is necessary.

1010 SIMBA STUDY: UNDERGRADUATE MODULE IN SIMULATION TRAINING AND BASIC LIFE SUPPORT

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Background Medical education has been greatly enhanced by the development of simulation 'patients.' Real-time training with simulated clinical signs promotes development and institution of practical management plans, without the fear of causing harm. We aimed to evaluate confidence levels and personal preference, as well as overall satisfaction with the module.

Method Students received pre-course reading material and three teaching sessions, including didactic teaching, video and live demonstrations, basic life support training using mannequins and small group teaching. The final session was a thirty-minute session in groups of 6, in which the students worked in teams to assess, diagnose and treat a simulation baby, followed by a case discussion. Students completed anonymous questionnaires.

Results 164 students completed the first two questionnaires, and 140 students completed the third. There were 44 postgraduate entry students: 10 Masters & 2 PhD graduates. 131 students felt they had benefited from the pre-course reading material and 130 students felt the 2-session pre-simulation were beneficial. Rated on a scale of 1–10, students' confidence increased by 2.6 points after the simulation session. Following the simulation, 73 students planned to increase their clinical versus their book work. 76 students requested 2 or more further hours of simulation teaching and 121 found the simulation baby to be superior to mannequins as a teaching tool.

Discussion The introduction of the SIMBA module was well received amongst medical undergraduates. Students gave positive feedback. Technological advances of simulation patients greatly add to paediatric undergraduate training, and enhance overall experience.

1011 INTRODUCING VIDEO AS A SUPPLEMENT IN THE ASSESSMENT OF STUDENT PERFORMANCE IN CLINICAL PEDIATRIC EXAMINATION

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Background and Aims It is time consuming to include patients in the clinical pediatric examination of medical students. At Copenhagen University we perform a 25 min oral examination, based on a clinical paper case and wanted to evaluate supplemental exam questions, based on video.

Methods With written parental consent 17 videos lasting 30 seconds were recorded, demonstrating children with common clinical conditions. After the case-based examination, the student blindly chose one of the videos and was allowed to see the video twice, before assessing the specific symptoms and general appearance of child.

After the examination, the internal and external examiner answered a simple questionnaire.

Results 141 students were examined using videos. The videos were rated as suitable by 89%(92/103) of the internal examiners and by 76%(78/103) of the external examiners (Fishers Exact test, $p<0.05$).

Overall, the internal and external examiners rated the video part on a 5-point Likert scale to be important or very important in 38%(40/106) and 36%(37/103) of the exams, respectively (Fishers Exact test, $p=0.886$). The internal examiners reported, that the video had changed the grades in 40%(42/106) of the exams, which was similar to 37%(38/103) for external examiners (Fishers Exact test, $p=0.776$). Overall the grades at the examination were unchanged, median B (range G to A), $n=117$ before and median B (range F to A), $n=141$ (Mann-Whitney test, $p=0.992$) after videos were included.

Conclusions A short video showing a child with a common clinical condition appears to contribute significant to an oral examination based on a paper case.

1012 THE PERCEPTION AND IMPACT OF A 'BREAKING BAD' NEWS' MODULE ON PAEDIATRIC MEDICAL STUDENTS

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Background Although, communication is an integral part of medical practice, it is also the source of 20–50% of patient complaints. Breaking bad news is a challenge across all disciplines yet little time is devoted to formal training and practice at any stage of medical training. We aimed to improve medical student confidence in delivering bad news in an appropriate and sensitive manner.

Methods Students received a teaching session including didactic teaching, discussions, video example and scenario group work. Students completed an anonymous questionnaire after the session, which assessed their basic demographics, aspects of breaking bad news (BBN) and their confidence in BBN pre and post the session.

Results 114 students completed the questionnaire, of whom 59 were male and 74 were undergraduate-entry. 110/114 had previously considered that breaking bad news might be an important part of their future jobs however only 73/112 had previously considered that breaking bad news might consume a lot of time in their future jobs. 83 had witnessed professionals breaking bad news to either patients or family members in their training, and most commonly this was in paediatrics ($n=40$), General Surgery ($n=24$) and adult medicine ($n=45$). The average change in confidence in breaking bad news was +2.46 (range –1 to 6). Students rated the session as 7.79/10 for usefulness and 8.22 for interest.