3H: PechaKucha™ 1
Location: Kairo 1, Ground Floor, CCB
Date: Monday 27th August
Time: 1015-1200 hrs

3H1 (162)
Walking the Footsteps and Feeling the Pain: Patientization

Authors
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Presenter: Jamie Lim, Tan Tock Seng Hospital, Singapore

Background: In 2013, the first cohort of students from Lee Kong Chian School of Medicine (LKCMedicine) arrived in Tan Tock Seng Hospital for Hospital Week (HW) Orientation. The objective is to immerse students in the “real world” and through experiential learning, walk the patients’ footsteps.

Method: Moving away from the traditional all-physician-orientation, each team of 6 students was assigned to one medical discipline, co-supervised by a physician and a non-physician. Within safety guidelines, supervisors planned a 5-day-program that allowed students to experience the typical patient’s journey. Supervisors were reminded not to teach doctoring skills. The outcomes were (1) to present a 5-minute performance on the theme “My Patient’s Journey” on Day 5 and (2) every student would complete a 500-word reflection.

Led by a Cardiologist and an Advanced Practice Nurse (APN), the students started at the Emergency Department triage area. On Day 1, one student was “patientized” i.e. immersed into patient’s role: diagnosed with a heart attack, whizzed into resuscitation area, had a 12-lead ECG performed, spoken to by the cardiologist about treatment, and rushed to the Invasive Cardiac Lab for coronary angiogram. For the rest of the week, other students volunteered to be “patientized”: wore patient’s hospital attire, hooked to multiple cables in Coronary Care Unit, assisted for hygiene needs and had cardiac echocardiogram performed, restrained for being “uncooperative”, ate special diet and received counselling from other healthcare professionals. The supervisors debriefed the students at the end of each day and they wrote daily reflections and shared their “Ah-Ha” moments. Team performances on Day 5 reflected the students’ understanding of their patient’s experiences.

Results: Overall, HW received overwhelming positive feedback from students, supervisors and faculty and is now a signature program in LKCMedicine.

Conclusion: Active learning in almost-real situations shifted students from passive-observation to committed-participation and “patientization” has creatively transformed an orientation process.

3H2 (3215)
Change and process management for future doctors: Leading positive change with a teaming mindset

Authors
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Presenter: Sigrid Vest Arler, Central Region Denmark, Corporate HR, Aarhus, Denmark

Background: Change and process management for future doctors: Leading positive change with a teaming mindset

Physician leadership can improve hospital performance in terms of care quality, costs, social responsibility, staff satisfaction, information technology adoption and reform approval. Yet, leadership skills or medical management has not traditionally been taught in Danish Medical Schools. In 2017, we introduced an optional course that combined personal leadership, “teaming” and development of innovative solutions to leadership challenges. The focus of the course was on teaching personal leadership and teaming leadership practices, while solving real managerial leadership challenges together with clinical leaders.

Method: A mixed method study was conducted to evaluate the extent that students obtain the intended learning outcomes and how students’ general self-efficacy was affected. A questionnaire was distributed before and after the month-long course together with a summative course evaluation. Moreover, a focus group interview was conducted one month after students finished the course.

Results: The course differently affected student’s self-efficacy, dependent on their baseline score. Students with a high baseline score seem to develop more self-awareness and realize that teaming skills are highly necessary to lead positive change in health care, and as a result scored significantly lower after the course, while students that scored below average had a tendency to improve their score after the course.

Teaming leadership practices; especially creating psychological safety and learning form failure was highlighted by students. Furthermore, they describe a new awareness of the importance of teamwork in their future medical practice; a positive feeling of becoming less self-confident and able to admit “mistakes” and reflect with peers.

Conclusion: This presentation provides a visual tour of the students’ journey through the course elements in a challenging learning environment.
3H3 (2147)
Virtual Reality Fully Immersive Interactive Videos as a new teaching tool

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Presenter: Thomas Judd, Musgrove Park Hospital, Taunton, UK

Background: With the birth of the smart phone there is now a rapid expansion in the use of this technology to improve and enhance medical education. A recent literature review by Valle et al. (2017) concluded “Smartphone use is clearly an effective and efficient method of enhancing patient care and medical education in the health care industry.” The “Virtual patient” is not new to medical education. Kononowicz et al. (2015) explored what was meant by virtual patients in educational literature stating, “The primary form of Virtual Patients in the educational literature are Interactive Patient Scenarios despite rapid technical advances that would nowadays support more complex applications.”

Method: Recent technology advancements allow a smartphone to be converted into a virtual reality headset. We have developed a method of Virtual Reality Fully Immersive Interactive Technology Teaching (VR FIITT) where a student may be fully immersed in a virtual reality teaching scenario. We are at the stage of starting research projects to assess students’ performance of resuscitation skills, if trained with the interactive videos or standard teaching methods. The students are able to receive live feedback on their performance which can then be sent to the students’ educator to review trend in performance and areas for improvement.

Conclusion: This new technology has multiple applications across the whole of medical education, and can be applied to undergraduate as well as postgraduate training. In this presentation we will discuss the applications for this technology, and touch on what is now meant by the term “Virtual patient”.

3H4 (2358)
Surgery Clerkship Assessment Tools in Transition to Undergraduate Competency Based Medical Education (CBME)

Authors
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Presenter: Mila Kolar, Queen’s University School of Medicine, Kingston, Ontario, Canada

Background: Reframing medical education within the CBME context, with the use of Entrustable Professional Activities (EPAs) requires changes to systems of assessment including increased frequency of formative and summative assessments, and increased specificity and quality of feedback. As part of undergraduate medical education (UGME) competency-based curricular framework at Queen’s University School of Medicine we developed new formative workplace-based assessment tools to meet the increasing demand to accurately document direct observation of learners’ performance in the clinical learning environment.

Method: Our initial goal was to replace the existing formative workplace-based assessment form, which included Likert scale and check boxes, with two behavioral-anchored rubrics to increase specificity and quality of feedback for the Surgery Clerkship. As part of the overall development of the UGME procedural skills curriculum, a separate system of assessment for Clerkship procedural skills was also developed concurrently (Patterson, Katsoulas, Hastings, Sanfilippo, & Jaeger, 2017). Ultimately, two rotation specific rubrics for the Surgery clerkship and procedural skills rubrics were developed.

Results: The rubrics identify areas that provide “opportunities for growth” for students, areas they are still developing (i.e. “approaching standard”), and areas in which they are “achieved the standard. “The standard” here is defined by the behavioral anchors. Assessor feedback during development of rubrics assisted in ensuring that metrics of performance accurately reflect reasonable expectations of students.

Conclusion: Development of an assessment system for the Surgery Clerkship rotation, based on rubrics with explicit behavioral descriptor support faculty and residents to formulate judgments about a student’s clinical performance, enhanced the quality of feedback to students, helped course director to monitor students’ progress over the course of their rotations and to identify students in need of additional support earlier in their clinical training. Rubric-based assessment tools can be a valuable form of assessment within an EPA/CBME curricula.

3H5 (1441)
Future Doctors collaborating for change for vulnerable communities

Authors
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Margot Turner
Isabelle Guest

Presenter: Shilpa Suresh, St George’s University of London, UK

Background: Thirty years ago, the Edinburgh Declaration encouraged medical education to train future doctors to be more effective at meeting the needs of society. As
students at St George’s we are encouraged to understand the contribution of community health projects whilst also being encouraged to give back to the community we have trained in. We will visually introduce the audience to some of this work and the outline the development of a community conference which grew out of a need we identified on a short course on sexual violence. Statistics have shown there has been a 53% increase in “honour” based violence and some studies have shown that women present five times to a doctor before being killed. On our placements, we found out anecdotal that organisations were struggling to know where to refer people affected by familial violence. We will present the work we have undertaken and our project of setting up a collaborative conference on familial violence (including forced marriage, “honour” based violence, and witchcraft). St George’s is located within a diverse community which includes the groups most often affected by familial violence. We invited a variety of community, voluntary and religious organisations as well as doctor, midwives, social workers and police to work with senior health care students to share practice and challenges and worked towards identifying strategies to improve outcomes for people affected by familial violence. We will present the evaluation from this day, a snap shot of the discussions and outcomes for future practice.

Conclusion: Developing a conference has been invaluable experience to us as future doctors and helped us understand how we may be able to affect change for some of the most vulnerable patients we will be working with in future.

3H6 (1087)
Build it, and they will come? A need to move beyond Knowles theory of andragogy for busy residents

Authors
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Presenter: Daniel Nicklas, University of Colorado, Aurora, USA

Background: We thought that if we built Pediatric Primary Care Curriculum (to be amazing), the residents would come (and engage in the curriculum). We relied on Knowles theory of andragogy, a seminal education theory that emphasizes respect for learners’ independence and posts little need for extrinsic motivation. We thought that residents’ intrinsic motivation to meet children’s primary care needs would motivate them to engage.

Method: We implemented an inverted classroom model, aiming for strong learner outcomes. Curricular content was delivered weekly with multi-modal opportunities to engage, including 10-minute peer-reviewed readings (Yale Primary Care Pediatric Curriculum), short resident-made quizzes, and resident-made one-page “Fast Facts,” all delivered with links in a weekly email and organized by a learning management system (LMS) for mobile access anytime.

Results: An annual review revealed that 50% (53/105) of residents had never accessed the curriculum on the LMS, although they had asked for availability on this platform. Only 3% of residents visited half or more of topics; 7/49 topics were visited on average. Only 3% of residents completed quizzes; on average, even these completed just 8% of quizzes.

Discussion/Conclusion: Reflecting on our failure to engage the residents we wondered if the busy clinical environment, with little time arranged for independent learning, overwhelmed their intrinsic motivation to learn. We plan to shift our focus from topics to their motivation. We hope that self-determination theory with its emphasis on autonomy, competence, and relatedness will provide clues to intrinsic motivation.

We know now that building a curriculum is not enough. We suspect that using the curriculum as the basis for resident reflection-in-action and in-the-moment faculty coaching and assessment during patient care may build motivation by supporting residents’ autonomy, increasing their awareness of their competence, and creating meaningful relationships for learning. If we partner with them in a different way, perhaps they will “come”.

3H7 (1207)
Stress Management in Faculty: A life change experience

Authors
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Presenter: Carmina Flores, Nutrimmune Health, Huixquilucan, Mexico

Background: Stress is considered as a state of mental fatigue, it depends on the perception of the specific situations and the ability to endure it. Stress management in our faculty is crucial to the teaching-learning process to be effective. Every Medical School should implement their own strategies to prevent and treat it such as mindfulness programs.

Method: The aim of this study is to find the relationship between engagement and perceived stress in medical educators. In previous research, our team found that features that define how faculty teach are based in personal aspects such as the hours spent in the classroom and their main income source or type of contract directly affect the way in which faculty perceives stress. We decided to establish a small faculty stress management therapy group based on Mindfulness, our pilot included only two basic sciences full-time teachers. We designed a 10 week program, with three basic mindfulness tools such as meditation, journal writing and walking meditation and measured the Perceived Stress Scale on each one of them.

Results: Our intervention showed they were able to deal with stress in a better way than in the first weeks of the program and that they also referred being open to talk to their students outside class time and be willing to spend more time in campus as well.
Conclusion: Mindfulness has proved to be a great tool for building stress management and resilience for both faculty and teachers. We should embrace mindfulness and stress management tools in every faculty development program in order to help the achieve the best of them either on their personal or professional lives.

3H8 (992)
Learning medical practices: moving beyond a cognitive perspective

Authors
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Presenter: Anneke van der Niet, Maastricht University, Maastricht, Netherlands

Background: Although there is increasing awareness that learning entails more than an isolated individual gaining knowledge, the dominant theory in medical education is still focused on this individual acquiring rational knowledge that can be carried over. Moreover, it is suggested that this learning process is taking place solely in the head of the individual, reducing the human body to a brain that is positioned on top of an otherwise uncontrolled body. These cognitive theories advocate that individuals will gain medical knowledge by building models (scripts, schemas or representations) in the brain. When the learner is presented with a clinical case, the features of this case will be compared with the model stored in long term memory. Over time, the models will be developed and extended. Context is now sometimes added to this model, atop of underlying core psychological processes. In this presentation, I will explain why these theories fall short to explain learning and performance in the complex and dynamic context of medical care. I will introduce an alternative theory in which the learner and the environment form the unit of analysis. The theory of affordance perception implies that learning is about finding differences in the world rather than building generalities in the brain. Knowledge is not seen as a context free, abstract set of ideas to be stored in memory, knowledge is a context dependent activity of individuals in their environments. When a task is performed, a coordinated system of organism and environment is formed based on the available affordances. By practicing this task, the relationship between body and world for that particular task is modified, including how materials and other persons act in this practice. This theory offers a way to understand learning in the sociocultural medical context and forms a basis to understand transfer of learning across situations.