Poster Presentations

The following posters will be presented during coffee and lunch breaks. Presenters are welcome to present their poster at any of the assigned coffee and lunch breaks. It is advised presenters should include contact details on their posters in the event a delegate wishes to make arrangements to discuss the poster further.

Poster: CBME Innovations

Sequential spiral curricular design in outcome-based education (27)
Masahiro Tanabe (Japan)
Mayumi Asahina (Japan)
Shoichi Ito (Japan)
Kazuyo Yamachi (Japan)
Daniel Salcedo (Japan)
Kentaro Itami (Japan)

Background: Since the implementation of a nationwide medical school accreditation system based on the WFME global standards there has been an increased interest in outcome-based education (OBE) throughout Japan.

Purpose: In 2008 a new outcome-based curriculum was implemented at Chiba University School of Medicine, which defined a comprehensive set of competency requirements upon graduation as well as a 3-tier milestone system to measure them. The effects of the new curriculum on teaching and learning have been systematically monitored and analyzed.

Interventions: Students’ opinions and ratings of quality of educational experience and competency development were obtained through a graduation questionnaire. Data obtained between 2013 and 2015 (post implementation of the OBE curriculum) was analyzed and compared to data obtained in 2012 prior to implementation.

Results: Students opinions about the new curriculum were generally positive, yet there were some comments during the early implementation stages suggesting that the curriculum was excessively complex and that the desired level of competency had not been fully attained, particularly in the domains of public health and scholarship.

Future directions: Further research is necessary to fully determine the cause of lower competency development in the specific domains identified in this study and a curricular revision must be implemented to address those issues.

Trauma and Orthopaedic Competency Attainment in the UK Training Program (40)
Simon Fleming (UK)
Jonathan Beard (UK)
Catherine Molyneux (UK)
Olwyn Westwood (UK)

Background
In 2006, a new postgraduate Trauma and Orthopaedic (T&O) competency-based curriculum was approved. This evolved into the Intercollegiate Surgical Curriculum Program (ISCP). There are defined work-based assessment (WBA) and operative targets which must be achieved to demonstrate attainment of competency in the generalities of T&O. There is minimal evidence supporting these targets, or to show factors affecting attainment and maintenance of competence.

Purpose
This study aims to describe competency attainment levels and operative experience of T&O trainees in the UK throughout Specialty Training (ST3-8) and at Completion of Training (CCT), using two linked databases; ISCP and eLogbook. There are currently no studies describing by region, gender and training stage, the number of procedures and WBAs required, since the introduction of ISCP. This study will explore when competency is attained, whether there is evidence of maintenance and whether targets are fit for purpose. It will suggest robust evidence for benchmarking competencies and may demonstrate the Orthopaedic learning curve.

Interventions
This study will analyse UK T&O trainee data. Data will be collected from 2007 to the present. We will study the achievement levels in Procedure Based Assessments (PBA), through 12 “index procedures” set out in the T&O Curriculum as well as operative experience for these. We will analyse variation by gender, age, region and stage of training using STATA.

Results/Applications
This study will use assessments and operative experience to describe the levels of competency achieved at each training stage and to identify an orthopaedic learning curve. It will establish accurate targets which will be used to demonstrate T&O competency. We will explore whether surgical competence can be predicted, and if its maintenance can be demonstrated.

Future Directions
This project will provide valuable data which will influence UK Orthopaedic training and will be key to developing the next iteration of competency targets.

Osler – procedural certification management system (53)
Todd Fraser (Australia)

Background
Ideally, junior healthcare staff should learn unfamiliar procedures in a structured, supervised fashion until they have attained a pre-defined standard, before performing them independently.

Inadequate staffing, 24 hour rosters, unpredictable opportunities and inadequate clinical processes conspire against this key governance principle and lead to the well-recognized and unacceptable phenomenon of “watch one, do one, teach one”.

Purpose
Osler serves to structure procedural learning despite these conspiring factors, utilizing a mobile-enabled learning and assessment framework. This provides clarity around the procedural competency of both individuals and the workforce, and prevents patients being exposed to the risk of hazardous procedures being performed by inadequately trained staff.

Interventions
Learners access e-learning modules designed to teach the essential information required to perform the skill for the first time under supervision.

Osler’s digital, evidence-based assessment checklists are used by supervisors on their own mobile devices at the bedside, providing learners with consistent assessment and immediate feedback.

Learners continue to record supervised procedures until they are performing at independent practice standard, when visible and reportable certifications are issued.

Sophisticated reporting tools allow individuals and clinical managers alike to access performance data.

Access to refresher material, and ongoing logging of activity and outcomes allows users to maintain their certifications.

Results/applications
Over 300 nurses, doctors, paramedics and students across multiple specialties and 5 continents currently use Osler as part of 4 hospital trials and 1 individual trial version.

Future directions
In addition to procedural competence, Osler’s assessment framework can be applied to a variety of high-risk tasks, including equipment use, patient assessments, mandatory training and policy awareness. Ongoing use of Osler enables the self-audit and guided CME fundamental to revalidation. Collection of de-identified outcome data will enable further research into understanding how procedural competence is achieved in the real world for a wide variety of tasks.

The Development of a GI Motility Curriculum Using an Entrustable Professional Activity (EPA): A Novel Process Template for Creating Competency-Based Medical Education Driven Curricula (65)
Paul Menard-Katcher (USA)
Courtney Pigott (USA)
Janet Corral (USA)

Background:
With the ACGME reporting milestones, graduate medical programs continue transitioning towards competency-based medical education (CBME). As the Internal Medicine (IM) subspecialty milestones are not specialty-specific, entrustable professional activities (EPAs) were developed to describe the knowledge, skills and attitudes reflecting the desired outcome of a subspecialty trainee. To date, there are no examples of IM subspecialty EPA-driven curricula.

Purpose: To create, implement, evaluate and disseminate a novel CBME-based GI motility curriculum using an existing Gastroenterology (GI) EPA (GI EPA 3: Manage common gastrointestinal motility disorders).

Interventions:
Using Kern’s six-step approach to curriculum development, we conducted general and local needs assessments and used GI EPA 3 to drive curriculum goals and specific learning objectives. Specific task-oriented knowledge, skills and attitudes detailed in GI EPA 3 were mapped to existing fellow experiences and identified gaps were targeted for curricular content. Educational strategies were determined based on the EPA component being addressed. Fellow assessment tools linked to milestones were created.

Results:
General needs assessment revealed no formalized motility curriculum at 8 US academic medical centers. Current or recent fellows were surveyed as part of the local needs assessment. Gaps in fellow exposure to GI EPA 3 components were identified and a scholarship map was created linking EPA components to timely learning objectives, educational content, and competency based assessments. Learning objectives were linked to Miller’s pyramid of clinical competence.

Future Directions:
This work uses an academically regarded curriculum design process to develop an EPA-based GI motility curriculum. This curriculum will successfully implement CBME into an area of educational need within our fellowship and with dissemination, to other training programs. Furthermore, this curriculum provides a process template for using EPAs to drive curriculum
First World Summit on Competency-Based Education

Saturday 27 August 2016
Sunday 28 August 2016

development and innovation. This template can be used to design other EPA-driven curricula in GI, other IM subspecialties, and other medical disciplines.

Competencies in Physiology—towards CBME: a pilot trial in a group of medical schools of India (73)
Rituparna Barooah (India)

Background:
The North Eastern region of India comprise of eight states have eleven medical colleges; six in Assam (govt); two each (one govt and private) in Tripura and Manipur; one (govt) in Meghalaya and Sikkim (private) each catering to a population of more than 200 ethnic tribes with their unique lifestyle and physiology.
Summative assessment in all the medical colleges is done by four assessors, two from the host medical school (internal examiners) and two external examiners from among the rest of the medical schools.
Purpose:
Need for introduction of CBME in Basic Sciences was perceived in order to standardize the assessment and educational process involving basic science over the region and an effort was exercised to identify the specific competencies and relevant teaching learning methods and assessment tools.
Intervention:
A validated questionnaire was used to collect data from the faculty involved in teaching of Physiology regarding need of CBME, specific competencies, relevant teaching learning methods and activities, specific tools for assessment and development of competent faculty etc.
Result/application: Preliminary analysis demonstrated the competencies could be grouped in three categories:
Conceptual comprehension of the fundamental mechanisms of the functions of the human body with practical demonstration
Development of professional competencies and personal intelligence
Critical analysis and appropriate application of knowledge of physiology in clinical setting
Formative assessment and group formative feedback were recognized as facilitating factor for CBME along with short term research projects, assignments, seminars and portfolio. Both small group and large group teaching were advocated for specific competencies. Self and peer assessment and learning, group activities and faculty development workshops, horizontal and vertical integration are few areas stressed upon.
Future direction:
1. Integration of the curriculum (horizontal) in Basic Science;
2. FDP, Workshops & training on CBME, Integration, Assessment;
3. Structured orientation module of Professional competencies

The Successful Experience of an Innovative Competency-based Communication Curriculum at Tzu Chi University in Taiwan (78)
Jen-Hung Yang (Taiwan)
Li-Chuan Kuo (Taiwan)
Ying-Wei Wang (Taiwan)

Poor communication has been acknowledged as one of the most important problems in healthcare. It has also been examined that approximately 70% of medical lawsuits was due to poor doctor-patient communications in Taiwan. Good interpersonal relationship and communication skill is a core competency of a competent physician. The core value of Tzu Chi University is to cultivate a competent and humanistic physician to serve the patients and the society. We developed an integrated curriculum “Communications and the Patient-Physician Relations” for medical students from the 1st to the final 6th year longitudinally since 2011. The objective of the curriculum is to educate our students being competent to communicate with patients in an empathic way to provide a safer healthcare and better patient’s outcome.
Implementation of the curriculum: The curriculum was designed structurally from theory to practice throughout the preclinical years (M1-M4) and the clinical years (M5-M6 clerkship). We recruited medical educators (2), faculty of humanities (2), physicians, and standardized patients (SPs) as instructors and facilitators responsible for the curriculum. We videotaped the interactions of students with SPs and patients in the courses of “practicing with SPs”, “case studies”, “keeping reflective diaries” and “critical reflective composition training”. Subsequently, faculty discussed with students in small group and provided feedback to the students to provide an opportunity for a higher level learning of communication.
The Effectiveness of the Curriculum: We evaluated the effectiveness of the courses at different stages with multiple assessment methods, including pencil-test, essays, questionnaires, qualitative interviews, and reflective composition, etc. The students were satisfactory (4.5/5-point Likert scale) and responded positively to the curriculum, and our effort has been proved to be a successful competency-based curriculum, which was welcomed by students and has won a highly appreciation by the TMAC (Taiwan Medical Accreditation Council).
Medical Emergencies Simulation for New Foundation Doctors at Induction - Delivering the Learning Objectives (88)
Dominic Harrison (UK)

Background
Simulation-based learning (SBL) is known to be an effective and acceptable methodology for undergraduate and postgraduate learners. All new foundation doctors starting work at one of three major acute teaching hospitals in southeast Scotland take part in a half-day SBL session, during induction, prior to their first full day of clinical practice. The scenarios cover common ward-based medical emergencies, including sepsis, major haemorrhage and hypoglycaemia. The learning objectives for sessions focus on highlighting the use of local protocols, and tools for managing these medical emergencies.

Methods
All 131 candidates attending SBL at induction in August 2015 completed a post-session feedback questionnaire, which combined ‘yes/no’ questions and statements relating to aspects of the session which were rated using a standard five-point Likert scale. There were also opportunities to provide qualitative feedback on the forms.

Results
Thematic analysis of free-text responses showed the importance of early escalation in medical emergencies to be the candidates’ key learning point from the session. Other key themes included where to find protocols and "Hypo boxes". 100% (n=131) of candidates answered ‘yes’ when asked if the session would positively affect their practice with respect to patient safety. 97% (n=127) ‘agreed’ or ‘strongly agreed’ that the session met their learning needs, and 98% (n=128) ‘agreed’ or ‘strongly agreed’ that the scenarios were relevant to their clinical practice. The candidates also valued the opportunity to work with their new colleagues.

Key messages
Simulation-based learning effectively prepares newly qualified foundation doctors for approaching common medical emergencies in a new environment, and should be standard practice at induction.

Further work will try to assess if in-situ simulation sessions on the appropriate wards are feasible at induction in August 2016.

Developing a Roadmap for Successful Curriculum Redesign in Veterinary Medical Education (111)
Kristin Chaney (USA)
Maria Macik (USA)
Jacqueline Turner (USA)
Kenita Rogers (USA)
Jodi Korich (USA)
Elizabeth Scallan (USA)
Debra Fowler (USA)
Lisa Keefe (USA)

Background/Purpose: Curricular redesign is considered a necessary component for growth and enhancement of academic programs, but is a time-intensive endeavor requiring energy, creativity, and persistence from both faculty and administration. A comprehensive redesign effort involves ensuring the presence of or developing programmatic learning outcomes, mapping of the existing curriculum, and thorough curricular review including stakeholder data collection. In educational literature, there are various models established to guide the process of curricular redesign, however, there is a paucity of support or guidelines available for this process in veterinary medical education. Additional challenges for program redesign in veterinary medicine include the lack of in-house expertise in curriculum design within many veterinary colleges, the faculty time commitment necessary to drive the process of curricular evaluation, and the consideration of the many stakeholder groups involved within veterinary education.

Results/Applications: With these constraints and unique challenges in mind, the faculty and administration at Texas A&M College of Veterinary Medicine & Biomedical Sciences (TAMU) utilized both college and university resources to create a faculty-driven, data-enhanced curricular redesign process. This process involves leveraging pedagogical expertise, creating a committee of faculty dedicated to the redesign initiative, ensuring the presence of program outcomes, mapping the current curriculum, and collecting and analyzing data from relevant stakeholders. This oral presentation describes the innovative design of a process for comprehensive program redesign in veterinary medical education.

Future directions: The final phases of program redesign include the development of rubrics to ensure program outcomes are achieved and the creation of an I/R/D matrix to define how outcomes will be introduced, reinforced, and demonstrated within the curriculum. Examples from TAMU will be shared.
Engaging Faculty in Curriculum Redesign for Programs in Veterinary Medical Education (112)
Kristin Chaney (USA)
Maria Macik (USA)
Jacqueline Turner (USA)
Kenita Rogers (USA)
Jodi Korich (USA)
Elizabeth Scallan (USA)
Debra Fowler (USA)
Lisa Keefe (USA)

Background: Routine curriculum redesign is a vital process that ensures continued alignment between veterinary educational programs and the evolving needs of the profession. The faculty of Texas A&M University College of Veterinary Medicine & Biomedical Sciences (TAMU) recently embarked on a comprehensive curriculum redesign effort. The redesign initiative included developing program learning outcomes, mapping the existing curriculum, and performing a thorough curricular review including comprehensive stakeholder data collection. However, an additional component of program redesign that is understated yet vital for success is faculty buy-in and support for the process. Without faculty engagement, implementation of data-driven curricular changes stemming from program evaluation may be challenging. The methodology for encouraging faculty engagement through the redesign initiative and the lessons learned by TAMU will be described.

Results/Applications: To increase support for the redesign initiative in addition to seminars, retreats, individual faculty and departmental meetings, a series of faculty workshops were designed to promote faculty engagement. Faculty from different departments were appointed to work alongside TAMU curriculum committee members to review stakeholder data and generate creative solutions in response to stakeholder feedback. The innovative use of facilitator-mediated data analysis workshops to review stakeholder data promoted faculty engagement and resulted in unique faculty relationships that enhanced support for curricular change and the redesign initiative.

Future directions: The analysis team workshops empowered faculty in a variety of ways. The time commitment for workshop participation encouraged faculty to develop a vested interest in the redesign process and to view the curricular initiative as a positive opportunity for the college. Through review of the data, faculty were allowed to cultivate their own ideas about what changes would be necessary to satisfy results obtained from data analysis and to be able to willingly support the redesign effort among colleagues within their department and across the college.

The Making and Testing of a Question Guide to Stimulate Medical Students' Self-reflection on a Community-based Learning: An Experimental Study (129)
Ratih Yulistika Utami (Indonesia)
Mora Claramita (Indonesia)
Yayi Suryo Prabandari (Indonesia)

Background: Self-reflection question guides can help students to go through a process of reflection step by step training them to better reflect and increasing the depth of self-reflection.
Purpose: The authors' objectives of this study were to create a self-reflection question guide that stimulates medical students' self-reflection and critical thinking within community-based learning; to test the newly developed self-reflection question guide; and to compare the level of self-reflection between the students who were given the newly question guide and those who were given the old one in their assigned portfolio writing.
Interventions: This was a double blind experimental study with a post-test only control group design. The authors conducted intervention for 100 minutes as follows: giving an explanation about the purpose, benefits and procedures of the research and seeking approval from the students to become the subjects of study; providing an explanation of self-reflection, benefits and examples of self-reflection; giving an explanation of the newly question guide and providing time for the subjects to write reflection based on these questions; and finally closing.
Results: There was a significant difference in the levels of self-reflection in general in the control group and the intervention group with a p value of 0.000 (&lt; 0.05). As demonstrated, the self-reflection question guide can stimulate the reflection and critical thinking skills of medical students in a context of a community-based learning.
Future directions: As researchers, we should also be aware that using the question guide to write a self-reflection can be a challenging, boring activity and time consuming, so examining factors that can affect students' reflections and finding more effective ways to stimulate students to retain learning enthusiasm by properly reflecting on their experiences are still the main challenges in the overall health professions educational programs.
Abstract 132
Withdrawn

The flipped classroom model for teaching physical examination skills - impact on student learning and competency-based assessment (134)
Margo Lane (Australia)
Daniel Park (Australia)
James Fraser (Australia)

Background
UQ School of Medicine is the largest medical school in Australia with 530 students admitted per year. Year 1 clinical skills, including physical examination, are taught in small groups of 10 students with a clinician tutor per group. Whilst this course currently receives excellent student evaluations, course learning resources and standardization of clinical skills assessments were identified as areas for improvement.

Purpose
The purpose of the innovative online resources are twofold. Firstly, there was a need for students to have additional resources which directly modelled the UQ standard for physical examination techniques and aligned with their assessment to assist their learning. Secondly, improved standardization of the clinical skills teaching and assessments was identified as an area for development, given the number and diversity of Year 1 clinical skills tutors.

Interventions
In early 2016, student volunteers were filmed whilst performing the standard UQ physical examination of the five major body systems studied in Year 1. The completed videos were uploaded to the Learning Management System allowing access for both students and tutors.

Results/applications
Data from student and tutor surveys, system module assessment results and course evaluations from 2015 and 2016 will be analysed and the results will be presented.

Future directions
Future directions may include application to other areas of the medical program, with the aim of improving clinical assessment standardization and cohort competency in clinical skills.
Background: Near-peer teaching (NPT) occurs where a trainer one or more years senior to a student assists that student in obtaining further knowledge (1, 2). NPT was launched in University Hospital Waterford (UHW) in August 2015 and consisted of a competency-based approach to foster and hone clinical skills and knowledge of final year medical students via the milieu of cognitive congruency (3). This study outlines the feasibility and value of NPT in a teaching hospital.

Methodology: Over five months, weekly NPT sessions were delivered by medical interns. These sessions were designed to enhance the core clinical examination skills and knowledge of Final Year Medicine students. All students were asked to outline their experience of NPT and perceived worth and benefit of NPT to their competencies. These responses were gathered via anonymous questionnaire.

Results: A cohort of 76 students participated in NPT, with a 100% attendance rate. Student feedback revealed:

- 84% of students strongly agreed and 16% agreed that the tutorials were relevant to them.
- 79% of students strongly agreed, 16% agreed and 5% disagreed that enough opportunities to ask questions were provided.
- 74% of students strongly agreed, 26% agreed that tutors provided clear explanations.
- 88% of students strongly agreed, 12% agreed that tutors were approachable and helpful.
- 76% of students strongly agreed, 24% agreed that tutors made the tutorial interesting.
- 84% of students strongly agreed, 26% agreed that tutors had good knowledge of the subject presented.

Conclusion: Core curriculum and clinical skills were conveyed to students in a stimulating and unique manner. Students value NPT as a positive learning tool that provides a safe learning environment. NPT represents an effective and novel modality in medical education. Future studies will identify the impact of NPT upon student's academic performance, professional development of NPT tutors and its acceptability to patients.

Paediatric emergency procedural sedation is a distinct practitioner skill set that has not gained mandated formal certification status and as such practice varies. We developed an interprofessional continuing professional development course to promote safe sedation practices in children. Educational materials and multiple methods of learning were used to facilitate reflection and practice change. Methods for knowledge and performance assessment including multiple-choice questions, direct observation and feedback using high-fidelity simulation were used to assess individual and team-based competency in procedural sedation.

The purpose of this study was to evaluate a competency-based continuing professional development program to improve knowledge and performance of safe sedation practices in children.

Methods: A 1-day interprofessional continuing education program was developed to address the need for increased knowledge and performance of paediatric emergency procedural sedation. High-fidelity simulation scenarios with debrief sessions were used to allow participants to practice skills and receive feedback in a team-based environment. Predisposing (70-page manual), enabling (interactive case-based lectures) and reinforcing (sedation card and record) methods were used to enhance learning. Participants completed a 30-item multiple-choice examination for learner self-assessment at the end of the program.

Results: From July 2012 to September 2015, there were 10 courses with 225 health professionals completing the programs. Evaluations indicated high learner engagement to meet learner needs (mean score 4.55/5). The simulation sessions enhanced learners’ problem-solving ability and decision-making skills (mean score 4.54/5). All participants achieved a minimum score of 70% on the multiple-choice test. Seventy-nine percent of participants reported a plan to make changes in their practice as a result of the program. Qualitative description of changes in practice includes increased confidence to perform procedural sedation, utilization of new knowledge and skills and commitment to implement sedation programs.

Future directions include survey to past participants to understand successes and challenges to implementing changes in practice.
New strategies to open teachers mind about competency-based learning (161)
Marta Menezes (Brazil)
Marília Gusmão (Brazil)
Valdes Bolliela (Brazil)
Ieda Aleluia (Brazil)
Lígia Vilas-Boas (Brazil)
Monica Oliveira (Brazil)

The Escola Bahiana de Medicina e Saúde Pública (EBMSP) implemented since 2012 a competency-based learning (CBL) model lesson plan. On this model it is important to define the expected competencies, to create the needed learning conditions and to evaluate the process to confirm if the objectives were reached. Even though the school provided a lecture about CBL, the implementation of this model was not effectively incorporated.

This time, we decided to try a different educational approach, the team based-learning (TBL), so the teachers could better understand CBL. The training activity was held in an institutional Educational Conference at EBMSP. On the first part of the activity we offered a text about CBL, followed by an individual quiz, small group discussion, group answering of that same quiz and a final discussion on the subject with all groups. On the second part, each group applied the knowledge acquired on this experience by creating a CBL model lesson plan that was presented to everyone for discussion.

After a week an online survey was answered by the participants about their impressions on that activity. Among the 40 people that answered the survey, 32 (80%) were teachers and 20 (54%) had more than 10 years teaching experience, 26 (65%) already knew the TBL method. They also answered Likert scale questions about the activity. More than 90% of the participants agreed or strongly agreed that this activity provided better knowledge and skills for building CBL model lesson plans. They also pointed that they were motivated by team work, and will share that experience with co-workers.

This activity was well accepted by all participants, and they made suggestions to improve it.
We intend to incorporate this educational approach on our teacher development program.

Competency-Based Education for the Management of Respiratory Failure and Oxygen administration (164)
Ida Ryland (UK)
Nicola Garner (UK)

Background
The recognition of Respiratory Failure and the need for prescribing of Emergency Oxygen Therapy is poor (BTS, 2013). Identifying the underlying causes of this lack of knowledge is required in order to improve health practitioners’ clinical decision making and thus enhance patient outcome.
Purpose
The aim of this competency-based education package is to address the knowledge gap in the recognition of respiratory failure and management of oxygen by health practitioners in the acute hospital setting.
Innovation
A questionnaire approach was utilised to establish the subject knowledge baseline of 100 practitioners (Nursing 36%, Medical 50% and Allied Health Professional 14%) in order to identify specific educational needs.
Data was analysed using SPSS version 20.
Results
The majority (75%) of participants correctly interpreted Type 1 respiratory failure yet only 38% recognised Type 2 failure. 72% participants admitted to receiving some prior training on oxygen administration however 44% had received no formal education on oxygen prescribing. Despite 92% recognising oxygen as a drug only half the cohort acknowledged the Venturi device was a controlled oxygen system.
Application
The study participants engaged in a presentation highlighting the dangers of oxygen mis-use specifically in relation to respiratory failure. This was followed by completion of a competency-based educational package based on the recognition of respiratory failure and the management of oxygen therapy. To establish if the participants’ baseline knowledge had improved a competency-based quiz was provided.
Future Directions
In recognition of this important issue the Trust have set a requirement of 80% achievement as a mark of competency in the quiz in order for practitioners to gain permission to use the Trust’s Patient Group Direction (PGD) for the administration of oxygen.
Conclusion
Investing in competency-based education relating to the recognition of respiratory failure and oxygen administration empowers staff to enhance patient safety and improve outcome.
Exploring an evidence-based model for feedback and coaching in competency-based medical education (17b)
Joan Sargeant (Canada)

Recent studies show that residents and other learners do not always readily engage in and use performance feedback for improvement, for various reasons. This is especially concerning within the evolving CBME context where it is expected that learners will receive more frequent performance feedback to help them progress from one level to the next, and where effective feedback and coaching will be essential in maintaining their appropriate learning trajectory. One feature of the assessment and feedback process within CBME is having regularly scheduled progress/feedback sessions (eg every 3-6 months) with their supervisor or coach to review their formal assessments for that period and from these develop a plan for further learning and improvement. In response, we developed and tested an evidence and theory-based feedback and coaching model, to enable supervisors to facilitate residents' engagement in and use of their assessment data and feedback, and coach them for further development. It is a 4-stage feedback model (R2C2): building relationships, exploring reactions, exploring content, coaching for change, and has been well received by a number of competency-based programs. The objectives of this workshop are for participants to be able to describe the model and its 4 phases, practice using the model with simulated assessment and feedback scenarios, and critique the model for use within the CBME context generally and in their own setting specifically.

References:

Leading Change: The Origins of the International CBME Collaborators (ICBME) (23b)
Jason Frank (Canada)

Competency-based Medical Education (CBME) is an emerging approach to health professions education worldwide. In 2009, the International CBME Collaborators (ICBME) was founded to advance the field in medical education, provide a community of practice for those working in CBME, and to provide a "home" for the movement to change training. We describe the origins and agenda of the ICBME at this time.

The ICBME was founded when the Royal College of Physicians and Surgeons of Canada embarked on its own CBME transformation and conducted a systematic review of published CBME definitions. Realizing that CBME would benefit from a consensus conference, 25 authors were invited to come to an unprecedented meeting in Ottawa, Canada. The resulting meeting became a landmark event for the movement to promote and adopt CBME, and resulted in the first, highly cited, ICBME paper series (Medical Teacher, August 2010).

The ICBME group continued to meet monthly via international teleconferences. The discussions led to an expansion of membership and activities. ICBME now includes 80 members from 5 continents, with majority of participants from Canada, the USA, Australia, and Europe. Members are researchers, policy makers, clinicians, PhDs, and senior administrative leaders. The ICBME went on to identify additional work via a Delphi process. This lead to the second CBME consensus conference in 2015, and the second ICBME paper series 2015-2016. The First World Summit on CBME at AMEE 2016 and the ICBME webinar series are both products of the ongoing work of the network.

The ICBME is an example of an international community of practice, research collaborative, change network, and sociological home for a movement for medical education change.
How competency based medical education has driven health care reform: A case report from a Dutch Caribbean setting (8b)

Jamiu Busari

Current practice shows that to achieve value-based health care systems, the competencies of health care providers and the quality of the health care system needs to be assured. As a result, it is important that health care systems focus on service and manpower development both during and after formal (postgraduate) medical training. Curaçao is one of the Caribbean islands belonging to the Kingdom of the Netherlands. With an estimated population of 150,000 inhabitants, the island is characterized by a relatively high aging population, a high prevalence of chronic diseases (e.g. diabetes, obesity), and a suboptimal health care system portrayed by fragmented, unsynchronized and inefficiently functioning primary, secondary and tertiary health care levels. The St. Elisabeth Hospital (SEHOS) is the major general hospital on the island. It provides health services in all the key clinical specialties and also serves as an affiliated teaching hospital for a number of tertiary medical institutions in the Netherlands. Over the past decade, the hospital’s objectives have included the successful implementation of the revised Dutch postgraduate curriculum on competency-based medical education within its teaching setting. In this report, we share the practical outcomes and experiences from a decade of implementing CBME in a resource-limited environment and the impact it has also had both on the quality of health care.

References:
Poster: CBME Research

Developing a “Clinical Manifestation” In Medicine Clerkship Curriculum (20)
Narges Saleh (Iran)
Azim Mirzazadeh (Iran)
Mohammad Shariati (Iran)

The purpose of the study was to determine CCM that all students are required to master in approaching them.
Methods:
We used a combination of methods including, qualitative and quantitative approaches. Triangulation method was used in the first phase; literature review, a survey of experts from different clinical disciplines and a survey of general practitioners. In this phase initial list of common clinical manifestations was prepared. The second phase of the study was characterized by identifying clinical presentation of the patients who were visited by family physicians and gathered via the health system network. We have used this information in finalizing the CCM list. Finally, information extracted from phase I and II were available to the experts and finalized in an expert panel.
Results:
After these phases, we obtained a list of 100 CCM (such as palpitations, fever, and nausea, etc.) as the most important content to be included in a minimal clerkship core curriculum in undergraduate medical education. Based on the finding, we have classified this list into different disciplines and allocated them to core clinical departments.
Discussion:
Our process can benefit medical schools that offer outcome-based medical education, especially for clinical clerkship course. They will be able to focus on topics chosen by the Iranian expert panel as being the most important issues in such a situation to drive effective clerkship, a supportive system including assessment should be implemented.

Assessment of the clinical outcomes of interns in Family Medicine using milestones and Entrustable Professional Activities: a curricular proposal (25)
Adrián Garduño-Vera (Mexico)
Alicia Hamui-Sutton (Mexico)
Uri Torruco-García (Mexico)
Ana María Monterroso-Rojas (Mexico)
Araceli Arrioja-Ramírez (Mexico)

Background. The Association of American Medical Colleges has put forth a set of Core Entrustable Professional Activities for Entering Residency that provide a road map for milestones (Santen, 2015). However which skills should interns be expected to perform at Family Medicine health centers hasn’t been determined yet.
Research question. What must be present on a curricular proposal for Family Medicine interns, so that they outperform the threshold of pre-entrustable trainees?
Methods
Population and data collection. Four focal groups were conducted in May of 2015 to explore the core activities that an intern has to develop in Family Medicine rotation; two focal groups were with Family Medicine Professors and two with social service students. Thirteen specific activities were identified and three levels of milestone performance were constructed.
Analysis methods. Family Medicine milestones for interns were validated through an electronic three round Delphi survey between November and December of 2015. Thirteen Family Medicine academics from three public primary health centers participated in the validation process.
Results. We developed a curricular proposal with thirteen entrustable professional activities and three levels of performance for Family Medicine interns. The thirteen activities are: attend like first assistant in vasectomy, application of immunizations, antenatal and postnatal birth control, attention of infectious diseases, attention of epidemiological surveillance diseases, advice and application of contraceptive methods, health control of infants under age 5, screening of cervical cancer, control of metabolic syndrome, elaborate a family diagnosis, screening or frequent neoplasms, screening of breast cancer and control of skeletal muscle diseases.
Conclusions. The present research is the first proposal of Family Medicine milestones for interns at Mexico. What is new to the field for undergraduate medical education is a pedagogical plan that combines the AAMC Core Entrustable Professional Activities for Entering Residency with the curricular themes in Family Medicine for interns.
Emotional Intelligence and Job Motivation of Member Faculties in Medical Sciences Universities (33)
Ali Morad Heidari Garji (Iran)
Mansur Ranjbar (Iran)
Morteza Darabieniya (Iran)

Background: One of the important issues of the organizations is how to motivate their staff to work and get more exploitation. Concerning motivation and promoting via training emotional intelligence is associated with higher efficiency and exploitation in an organization, so the researchers aimed to study the relationship between emotional intelligence and professional motivation among faculty members of Mazandaran University of medical sciences.

Methods: This is a descriptive study which included 120 of the faculty members of MUMS via stratified randomized sampling. The participants measured by standard emotional intelligence and professional motivation questionnaires. Data analyzed via software SPSS 16 using Pierson correlation method.

Results: The findings of this study showed that there is a significant correlation between total score of emotional intelligence and professional motivation. Also there is a significant correlation between the total score of emotional intelligence and each variables of the professional motivation questionnaire. The average total score of motivation in the faculty members was 173.76 and the average total score of emotional intelligence was 116.52.

Conclusion: Enhancement of emotional intelligence results to higher professional motivation, so promotion of emotional intelligence skills effects motivation level, professional progress, functional progress and finally exploitation and more profit. Companies and organizations can identify the reducing factors of the motivation in the faculty members and determine the ways to get rid of them.

The Interprofessional Skill Lab in the Simulation Centre: An Experience of Communication between the medical-nursing team and family members (59)
Annamaria Bagnasco (Italy)
Sue-Anne Maruffi (Italy)
Gianluca Catania (Italy)
Giancarlo Torre (Italy)
Loredana Sasso (Italy)

Introduction: Interprofessional competency consists of four domains: values/ethics, role and responsibility, interprofessional communication, teams and teamwork. This study aimed to promote the culture of interprofessional collaboration through an interprofessional educational session with nursing and medical students in a centre of simulation at the University of Genoa.

Methods
To build the interprofessional educational session, we used:
- Role play (to develop relational competences);
- Briefing & debriefing (to share information about the event);
- Semi-structured interviews based on the literature and the role-play script;
- Guided reflection (to analyse the contents of this experience).

The session was recorded and verbatim transcribed to extract main concepts and constructs from what students said.

The setting was the Centre of Simulation of The School of Medical and Pharmaceutical Sciences at the University of Genoa.

The sample was a non-probabilistic convenience sample of 11 nursing students and 8 medical students.

Results: The interprofessional educational session was rated positively in terms of: teaching method; educational materials; and educators.
The main themes that emerged from this study were:
- Meaning of interprofessional team;
- Different and mutually-completing roles; physician/nurse primus inter pares;
- Things done at different moments;
- Feeling of ‘loss’ in terms of quality of care for patients when interventions are not jointly agreed;
- Recognise the need for specific training in terms of interprofessional teamwork;
- Need to be educated for integration: knowing one another, sharing, and collaborating;
- Having a common vision centred on the patient.

Discussion: The purpose of this study was achieved. The mix of teaching methods selected for the interprofessional education session were effective in launching a course of interprofessional education.

Conclusions: Students became more aware of the four domains of interprofessional competence and about the need to learn how to work in synergy as an interprofessional team in the future to meet patients’ healthcare needs and improve their outcomes.
Using OSAR model to assess the reflective process in Critical Incidents reported by Chilean Medical Students (76)
Debora Alvarado (Chile)
Patricia Perez (Chile)
Cristhian Perez (Chile)
Patricia Villaseca (Chile)
Fernanda Perez (Chile)
Daniela Plaza (Chile)

Introduction: Learning based on critical incidents (CI) has been introduced in medical education as an useful tool for improving the quality of teaching, error prevention, and key competencies development such as reflection skills. Critical incidents are unexpected events that require a quick and instinctive response. They have been used since 2008 in the internship of Public Health at the University of Concepcion, Chile. Critical incidents seek to promote a reflective practice by improving knowledge from action. In order to classify their reflection level, an OSAR (Observer-System-Action-Results) model was employed. The highest level in OSAR model is the transformational learning, when a profound change happen in the beholder.
Objective: To analyze the reflective process in the Critical Incidents reports of Medical students in their last year of undergraduate training process.
Methodology: Using thematic content analysis, Critical Incident reports from 124 Medical students in their last year of undergraduate training process were reviewed. 70 (56.5%) were female. Each report was analyzed by a teacher and an assistant independently. Then, learning level showed by students in their reports were classified in five levels according to the OSAR model. The Kappa statistic Cohen showed an appropriate level of inter-rater agreement.
Results: The students usually stay in the passive acceptance of the context (n=22; 17.7%), in a basic analysis of the situation (n=29; 23.4%), or in a first level learning (n=50; 40.3%). There are some students who reach a second or third level of learning, but they are rare.
Conclusion: Despite the effort of their Medical School for intentionally promote higher levels of reflection in them, students tend to a situational and poor analysis of the context. In this situation, their reflexive processes rarely reach a level that really help them to change.

Critical Reception of Competency-Based Medical Education (CBME) Discourse (8t)
Victoria Duque (Spain)

Background
Institutional medical education discourse evolved from the concept of doctors as managers of knowledge towards doctors as producers of quantified health outcomes. Under this behaviourist model the core concept of medical competence permeates normative texts addressed to medical teachers and students. The shared framework in CBME discourse is a standardised, global learning model focused on assessing future doctors according to their performance and outcomes. But critical voices are denouncing that the competency-based curriculum overemphasises a mechanical model that produces “hidden incompetency” as a side-effect.
Summary of work
Relevant medical education texts are studied under a functional perspective looking for tensions within the text or among different texts. Critical Discourse Analysis (CDA) methodology shows how these tensions continue undermining an apparently uniform educational framework, especially concerning standardisation and assessment. Different approaches for texts analysis are used, as tag clouds, Parker’s framework, Foucauldian CDA and Performative Narrative Analysis.
Results and Discussion
Medical competence is an unstable concept undermined by different approaches. Globalisation theory considers free movement of people, ideas, technology and capital and works towards some kind of meta-accreditation but other voices are against this “neo-colonial” influence that does not fit in all contexts. Identity-formation theory represents medical education as a process by which people seek to integrate their various statuses and roles, as well as their diverse experiences, into a coherent image of self. Cognitive theory supports the higher-order skills necessary to be a holistic professional who manages social and cultural contexts to impact on the environment producing desired health results.
Conclusions
Tensions in CBME discourse reflect how physicians are trying to recover their lost empowerment moving to a multifaceted, global, interdisciplinary identity. Legitimisation of a contextualised practice inspires a more complex postmodern identity and consensus among social actors.
“A Picture Tells a Thousand Words”: Pictures explaining CBME (82)
Victoria Duque (Spain)

Background. Medical competency is the core concept of contemporary Competence-Based Medical Education (CBME) framework. Definitions have evolved from doctors as managers of knowledge to doctors as producers of quantified health outcomes. Under this outcome-based model, the abilities and attitudes required in a graduate could be standardised and assessed. To explain it, some pictures have been added to CBME discourse in institutional texts and papers.

Summary of Work Studying the evolution of CBME framework in the main institutional documents and papers we can show the strength of institutional values, their inconsistencies and their power dynamics. Iconographic representations of medical competency enhance our understanding of the tensions inherent in current educational discourse.

Summary Of Results
The stairway of levels (Bourgoyne, 1993) => Time-based model.
Miller’s pyramid (1990) => Behaviourist model
The Irish diagram “Noughts & Crosses” (2011) => Conceptual model revised
The light that illuminates practice (Jolly, 2012) => Postmodernist model

Discussion. As a consequence of the ambiguity and conceptual instability of the term, medical competency has suffered a categorisation where competence is better than knowledge, but inferior to performance, which requires competence adaptation to real settings. Pictures reflect this changes incorporating the importance of social context in medical education together with cultural and economic needs.

Conclusions. Medical education is conceived as a process that has moved from a knowledge-based paradigm to a performance-based paradigm. Competence cannot only be the possession of knowledge, skills, and attitudes, but also the ability to use these in the clinical environment to produce desired health results for patients.

Take-Home Message. As medical institutions show in pictures, doctors’ image is moving to a multifaceted, global, interdisciplinary identity.

OSCE as a formative tool for doctors and nurses (84)
Cruz Bartolome (Spain)
Melus Elena (Spain)
Magallon Rosa (Spain)
Victoria Duque (Spain)

Methods:
A new OSCE, used not only as an assessment tool but as a formative tool including ethical and communicative skills, was designed by our team. Common stations were created for doctors and nurses. Unsolved clinical problems and new communicative situations to learn were analysed to design a formative OSCE focused in outcomes. The project included a provisional test and new stations and then, a validation questionnaire was done.

Results:
Most valuable items were:
Organisation: 85% tutors vs 83% residents.
Identifying and defining priority of needs: 100% tutors vs 67% residents.
Outcome assessment (American Board of Internal Medicine model and MINI-CEX): 100% tutors vs 67% residents.
Material resources: tutors 85% vs residents 100%.
Finally a new OSCE was designed with clinical cases proposed by tutors and residents and their suggestions were included. Global validation was good.
Death and Dying: Competent to Care? (94)
Janice Turner (UK)
Hannah Hesselgreaves (UK)
Clare Tucker (UK)
Hazel Scott (UK)
Gemma Sullivan (UK)
Rebecca Northridge (UK)

Purpose:
The purpose of this poster abstract is to provide an overview of a completed systematic literature review and the interpretation of its findings into the subsequent development of a medical educational competency based framework in relation to death and dying.

Interventions:
After undertaking a rapid literature review which confirmed our initial hypothesis, we analysed current UK medical curricula to examine how competency in handling the relevant range of death situations per specialty would be developed and assessed. In addition, we analysed trainee views on their experiences and preparedness for this area of practice.

Results and Application:
Deficiencies exist in the competencies, provided by current training, needed to provide satisfactory care at the time of death. However, measures to address these can be readily integrated into undergraduate, foundation and specialty training. Additionally, we have identified significant training needs for many specialty areas of training, especially in relation to sudden death contexts. Gaps exist between what is intended as competency outcomes and what is delivered.

Future Direction
Clinical training regarding death and death-related communication needs to take account of the varying situations in which specialty practice occurs. Therefore, in response to our results, we are now developing a Scottish medical training framework for all career stages to support attainment of competencies, relevant to clinical practice and we have created new training resources to foster understanding.

What Kind of Teaching Perspective Do Medical Teachers Have? (100)
Yera Hur (South Korea)
A Ra Cho (South Korea)
Sun Kim (South Korea)

Background: The study focused on the analysis of medical education classes through the evaluation of medical teachers’ perspectives of their classes in general.

Research questions: Three overarching questions were discuss; 1) Do the belief and intention of teaching effect on the action of the teachers? 2) What are the dominance and recessive teaching perspective? 3) Do the teaching perspective differ according to medical teachers’ gender and rank?

Methods: Pratt & Collins’ (1989) ‘Teaching Perspective Inventory (TPI)’ was used for analysis. TPI consists of 45 item questionnaires which categorize the perspectives into five; transmission, apprenticeship, developmental, nurturing and social reform. We analyzed these five perspectives with three sub categories (believe, intention, action: BIA) where the Cronbach’s alpha coefficient was .92 among five perspectives and .89 among BIA. Two medical school’s faculties were involved and 73 online TPI results were used in the study. Generalized linear model, descriptive analysis, ANOVA, and independent t-test were performed.

Results: 1) Belief and intention do effect the action of the medical teachers. Especially the highest significance was shown in teachers with Nurturing perspectives (B: t=4.72, p=0.0001/ I: t=4.34, p=0.0001). 2) The dominant teaching perspective was Apprenticeship (54.9%) type and the next came Transmission (14.3%). The most recessive perspective was Social reform (44.0%), followed by the Development perspective (25.0%). 3) These teaching perspectives did not differ according to the rank, but it showed difference in Transmission type (t=2.897, p=0.005) and Apprenticeship (t=2.002, p=0.049).

Conclusions: Medical teacher’s belief and intentions of teaching does affect how he/she acts in class. TPI inventory allows the teachers to reflect on their teaching perspectives of classes, and these evaluations may be used in development of the curriculum itself or to guide the future direction of the faculty development programs.
Learning Curve in Segmentation for 3D Reconstructions (102)
Gianluca Sampogna (Italy)
Francesco Rizzetto (Italy)
Francesco Cigognini (Italy)
Niccolò Cassina (Italy)
Maurizio Vertemati (Italy)
Marco Elli (Italy)

Medical students learn anatomy principally studying books and atlases of 2D images based on the most common anatomical variations. When they start their clinical activity, they have to face with inter-individual anatomical variability and translate their knowledge into a 3D space.

Recent developments in computer graphics and improvements in medical imaging have allowed to perform 3D reconstructions starting from patient-specific cross-sectional imaging, like CT scan or MRI, through a process called "image segmentation". The advantages of preoperative surgical planning by 3D visualization of patient's anatomy are well-known and have been elongated for many years. However, segmentation is not a widespread skill among doctors and 3D reconstructions are rarely employed in routine clinical settings. Probably, it is due to consistent initial difficulties with the learning phase of segmentation.

The aim of our research was to analyze the learning curve to evaluate whether segmentation could be realized easily, stimulating its diffusion.

We enrolled 12 medical students who passed the Anatomy exam and decided to attend a 4 hour course to learn how to realize virtual 3D reconstructions. An open-source software, called 3D Slicer, was employed to analyze radiological images. All participants used the same notebook, the 13.3" Apple MacBook Air.

At course completion, the students were asked to segment the same abdominal CT scan, adopting a work-flow focusing on the following organs: bones, aorta, liver, spleen and both kidneys.

All of them completed the abdominal 3D reconstruction within an adequate time for clinical settings: the mean time was 24 min (range: 16-36 min).

According to our experience, we consider that segmentation is an easy skill to learn, which should be part of the third millennium surgeon's armamentarium. We suggest MD curriculum should include this task which requires a minimum investment of resources.

Clinical Apprenticeships: a unique learning opportunity for medical students (105)
Marguerite Hill (UK)
Clive Weston (UK)

Background: The Clinical Apprenticeships, extended placements working with medical teams in secondary care, are a unique feature of the Swansea University Medical School (SUMS) Graduate Entry Medical (GEM) curriculum starting in the first year of the course. Students work with a range of specialties with the primary learning outcome of developing their clinical skills and professional identity as opposed to knowledge of the specialty itself.

Research question: How well are the clinical apprenticeships meeting the students' needs and how could their learning be enhanced?

Method: Informal focus group discussions with final year Swansea GEM students and clinical teachers. Review of student reflections on their placement.

Results: GEM students valued the opportunity to work with a clinical team without the distraction of formal teaching and felt well prepared for their placements. Although students were encouraged to spend time with the consultant, this was dependent on the engagement of the senior clinician and students spent most of their time with junior doctors. Five weeks was felt to be optimal time for apprenticeships unless they were working for predominately outpatient based specialities or specialities with a low rate of patient turn-over. The students felt they didn't receive sufficient feedback on their performance and clinicians were uncertain about the standards that the students should be attaining by the end of the placement. Areas of good practice were identified by students and clinical teachers and will be disseminated / implemented over the next academic year.

Conclusions: Early patient contact is valued by medical students and clinical teachers. Enthusiastic involvement of the students by all members of the clinical team is crucial if the students are to have a positive learning experience. Areas for faculty development, such as the delivery of feedback, have been identified.
OSCE to mastery: challenges in assessment of procedural skills (126)
Patricia Green (Australia)

Historically, students undergo assessment of procedural skills (e.g., indwelling catheterisation, IV cannulation, IM injection) during OSCE examinations. OSCE format however, provides limited sampling from the programmatic blueprint and restricts the number of skills assessed each pre-clinical year of the medical curricula. We wanted to ensure all students were competent in all procedures prior to their clinical years of training. We undertook a mastery approach to teaching procedural skills. Mastery was defined as a level of expected proficiency (and safety), such that students undertook continual assessment (at a pass or fail level) to demonstrate achieved ‘mastery’. Assessment involved demonstration of skill proficiency using 1:1 simulated patient encounters with written (i.e., checklist, anecdotal etc) and oral feedback provided by experienced tutors. Students: students were assessed on a 1:1 basis in a time allocated session and discussion was allowed during the assessment. Faculty: to align staff variations in learning and teaching approaches, the local health authority guidelines were referred to and adhered to. The variability of clinical practice was accommodated with criterion-referenced standard setting on the pass/not yet competent standards prior to the assessment. We established this mastery approach to teaching procedural skills during 2013 in our medical program, and less than 2% of students have required repeat attempts to demonstrate skill proficiency. Further, students have reported that mastery assessments are less stressful than OSCE, and the personalised approach to teaching makes them feel competent and more confident. Mastery approach to procedural skills provides a collaborative approach to teaching, learning and assessment and ensures students are confident and proficient with procedural skills prior to clinical placements. The mastery approach to teaching procedural skills provides consistent and transparent assessment processes and encourages collaboration rather than competition.

Changing Teachers Role: Facilitator (137)
Gulshat Kemelova (Kazakhstan)
Raushan Dosmagambetova (Kazakhstan)
Vilen Molotov-Luchanskiy (Kazakhstan)
Lilit Najaryan (Kazakhstan)

Research questions
Changing attitudes of teacher’s role as facilitator after training by CPD program based on the core competencies.

Methods
Medical teachers of Karaganda State Medical University have been suggested to answer Questionnaire “The 12 roles of the teacher” to training and after training, which should reflect the roles of the teachers, its importance for faculty and results reflected in educational process. The CPD program in KSMU based on the 6 core competences of teacher, which considered independent learning modules and included in total 324 hours. The duration of program is 2 months after complication every teacher writes reflective essay. In research were included 60 teachers of different departments who have experience less than 5 years.

Results
According to results noticed that mean rating for role “Mentor, personal adviser or tutor to a student or of group of students” to training was 3.8 and after training this index was increased to 4.4 and for the role “Learning facilitator” ranged from 3.6 to 4.4. This numbers showed the increasing interest in these roles by the young teachers.

Conclusions
In order to support and motivate young teachers to develop their evaluating and facilitating skills, it is essential to provide faculty development that defines core competences of medical teacher, including competence “Facilitator” and make a friendly environment for young members of faculty to improve their teaching roles.
Assessing interns and residents knowledge of data collection and Physician Patient Relationship during the examination (153)
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Leila Sabzmakan (Iran)
Leila Bahramkhani (Iran)
Alireza Mollai Yazdanabad Oliya (Iran)
Farideh Bahramkhani (Iran)
Ebrahim Akbari (Iran)

Background and research question: Proper strategies for Physician Patient Relationship, dramatically impact on patient satisfaction, treatment outcomes, medical costs, and even complaints against physicians. Evidences suggest that many physicians have not communicated effectively with their patients due to the lack of knowledge. A review, declares that, the Physician Patient Relationship skills and data collection is not included in medical education curriculum in Iran. Present study aimed to investigate residents and interns’ knowledge of data collection and Physician Patient Relationship during the examination.

Methods: This cross-sectional study sample was consist 47 interns and residents. The tool was 15 item questionnaire retrieved from training handbook. The questionnaire parts: data collection and Physician Patient Relationship=7questions. Its Face and content validity and reliability were assessed. The cronbach’s alpha was 0.69=acceptable. analyze done using SPSS software. Descriptive statistics, independent t-test and Pearson's correlation coefficient

Results: The results indicated that, (44.7%) were male and (55.3%) were female. Moreover (42.6%), (57.4%) were intern and resident respectively
The average age was 29/29±3/29.from 15 knowledge score; the average scores of 7.14 ±2.51 were obtained, which suggests that physicians' knowledge in this point are very low. Also independent t-test revealed that between knowledge, gender and level of education, were no significant correlation. Besides Pearson’s test showed no significant difference was between age and knowledge. For data collection section, knowledge score was 3.02 ±1.51and Physician Patient Relationship skills knowledge score was 1.56 ± 4.14.

Conclusion: our results illustrated that interns and residents’ knowledge were very low in this area. So, experience is not a good tool to teach these skills. Based on evidences, teaching these skills to physicians had a significant impact on patient satisfaction. Regarding their low knowledge in this area, teaching these skills are recommended to be included in the Curriculum of Medical Education in Iran.

A mixed methods approach to teach professionalism to ophthalmology residents: A pilot study (171)
Kavita Bhatnagar (India)

Background: Professionalism is an important competence to be taught and assessed for ophthalmology residents but presently there is no structured curriculum available for the same in India. Objectives: This educational research project was undertaken to develop, implement and evaluate a formal training in professionalism for ophthalmology residents using reflections and role-plays on simulated patients before using it on real patients. Methodology: This interventional study with Pre and post intervention assessment was conducted from 01 Nov 2014 to 31 March 2015 with study sample of 24 residents in ophthalmology department of a medical college in western India. A resident professionalism log-book was prepared to document the course objectives, course outline, student groups, evidence-based rationale, and specific professionalism behaviors to be learned. Training modules were prepared and validated. Interactive lectures by subject experts, reading assignments, seminars were used to teach basics of professionalism. Specific Professionalism Behaviors like empathy, altruism and informed consent were practiced using demonstration videos, role plays and reflections on their learning. Results: There was statistically significant improvement in resident’s perceived importance of professionalism (P&lt; 0.005). Mini-CEX encounters observed were 450 with mean scores of 5.48, 5.45 and 4.81 on a 9 point scale for empathy, altruism and informed Consent respectively. 100% faculty and residents were satisfied with this training program. Resident portfolios showed improvement in their humanistic/professionalism qualities. Conclusion: Professionalism can be taught and assessed. There is a need to have a structured training module for professionalism in ophthalmology residency in India.
Reinforcing Doctor Patient Communication Skills for Undergraduate Medical Students at entry to clinical rotation:
A pilot study (172)
Kavita Bhatnagar (India)

Purpose: The purpose of this study was to reinforce doctor patient communication and medical interviewing skills of second year medical students just before they start clinical postings. Method: Five days workshop to reinforce basics of communication skills taught in first MBBS and developing relationship with the patient, assessing patients’ problems, managing patients’ problems, and managing difficult patients / challenging situation was planned and conducted for 2nd year MBBS students before starting clinical rotations. A total of 110 second year medical students participated in this workshop. Teaching strategies used were interactive lectures and role plays followed by panel discussion. Pretest and posttest were taken. Feedback was taken on the impact of the program on the students. The students who took part in role-plays were asked to rate their experience on a 7-point scale. Result: The response rate was 86.36% 70.91% and 100% for posttest, programme evaluation and learning through Role-play respectively. Cronbach alpha for the pretest questionnaire, programme evaluation and learning through Role-Play was 0.799, 0.764 and 0.916 respectively. There was considerable improvement in the scores from the pretest values with the mean scores almost doubling in majority of the questions. Mean total score improved from 4.57 to 10.13. The improvement was statistically very highly significant. More than 70% students recommended this activity for other students (p<0.0001) Conclusion: Outcome measure scores in the posttest increased significantly. Teaching through interactive workshop and student’s participation in role play was found to be an effective method as reflected by students’ feedback. Therefore, the program will be continued in future.

Competency Based Teacher Education In India: Framework and Practice (173)
Pushpanadham Karanam (India)

Right to Education is a constitutional commitment in India which provides educational opportunities for children to fulfill their potential, realize opportunities for employment and develop life skills. Amongst the many factors influencing education quality, it is widely recognized that teachers play a crucial role, and some even argue that teacher quality is the most influential school-based factor affecting student learning. Researchers, policy makers, programme designers and evaluators, therefore, are looking for ways of understanding teacher quality and learning and promising teacher improvement programmes. As Student learning is the most important determinant, and thus quality teachers are those most capable of helping their students learn. Teacher competence is one way of looking at teacher quality, as it can provide a framework for talking about essential qualities that are expected of teachers. Competence standards for teachers, both in teacher education and daily classroom practice, are increasingly being designed.

The concept of competence has a long history in education and training research and practice. The term competence is employed in a generic sense, meaning the quality or state of being competent. The quality of being competent is explained by the possession of a set of ‘competencies’ that together are causally related to competent performance. In the literature, a long list of different competences for teachers can be assembled, e.g. knowledge competence, civic competence, emotional competence, cultural competence, gender competence. The National Curriculum Framework for Teacher Education in India envisages a competency based teacher education framework and direct the teacher education institutions to integrate in the pre-service and in-service teacher education programmes.

In this paper, author has highlighted the recent teacher education reforms in India within the competency framework and critically examined the current practices and future challenges.