**ABSTRACT NUMBER: P01**

Medical Students’ Comprehensive Basic Sciences Exam (CBSE) Results In Hormozgan University Of Medical Sciences (HUMS), Iran

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**Hormozgan University of Medical Sciences, Iran**

**Background:** In Iran, medical students study basic science in five semesters and participate in a comprehensive exam (Comprehensive Basic Sciences Exam). Analysis of factors related to Comprehensive Basic Sciences Exam (CBSE) scores of medical students could identify students who may require special educational attention during this course. The aim of this study is to assess the BSCE results in Bandarabbas.

**Methods:** In a descriptive study the statistical results of 20th to 36th basic science comprehensive exam in Hormozgan University of Medical Sciences (HUMS) were assessed. Target population was all 365 medical students who their complete data were available. In order to get the related factors, the score of the basic sciences courses, the result of the final basic sciences examination and the students’ demographic characteristics were obtained from their files. Data were analyzed using SPSS 15 software.

**Results:** Among the students 225 were female and 105 male. Mean CBSE score was 131.06 in males and 133.71 in females. This difference was not significant. Students with higher score of the basic sciences courses had higher CBSE score (P<0/01). But the age, marital status and failed terms weren’t associated with CBSE score.

**Conclusion:** The teachers’ evaluation of basic sciences score can be used as the most important predictor of CBSE results. Students with lower score of the basic sciences courses require special attention in order to improve CBSE results.

**Keywords:** Medical students, Basic Science Comprehensive Exam, Medical education

**ABSTRACT NUMBER: P02**

Cost Analysis & Qualitative Evaluation Of Short Courses On Homecare Education For Nurses At A Public University

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**Background:** Increasing demand for home care services, and license confirmation for nursing consultants & related centers active in the community, affirm the importance of this relatively new concept of care in our country. Both cost and quality both have to be taken into account, although it is sometimes difficult to achieve both simultaneously.

**Summary of Work:** Two short courses on home care education provided for nurses in a public university in Tehran, were selected for this study. Their course objectives, contents and participants were etc., according to the eight qualitative measures derived from Quinn’s views on programme evaluation. A qualitative analysis cost analysis indices such as cost-benefit & cost-efficiency were also measured.

**Summary of Results:** The costs of both courses exceeded their revenues, contrary to the importance of these programmes. The number of students attending the classes were not enough (28 and 23 people). The cost-benefit and efficiency of the second course were higher than the first one (0.77 > 0.62). Suggested approaches are provided in this study to improve the future courses effectiveness and efficiency.

**Conclusion:** Managers at all levels in universities, due to budget deficiency, have a crucial role in improving the quality in educational programmes and working within cost containment at the same time and not neglect one over the other.

**ABSTRACT NUMBER: P03**

Comparision Of Competence Assessment From The Viewpoint Of Nurses And Headnurses

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**Background:** Nursing managers have to assess competence of nurses for ensuring the quality and safety of nursing care. The annual evaluation of nurse competence by nursing managers is common in Iran but self assessment isn't considered as an effective evaluation method. The aim of this study was to compare the assessments of the nurse competence made by nurses and their headnurses in a hospital setting.

**Methods:** The assessment tool was a 73-item nurse competence questionnaire which was a visual analogue scale (VAS) consisting of seven competence categories: helping role, managing situations, diagnostic function, teaching-coaching role, work role, therapeutic interventions and ensuring quality. This assessment tool was based on Benner’s theory in nurse competency. Fifty practicing nurses that worked in two wards of a teaching hospital were selected. The comparison of self-assessments and headnurse assessments of the level of nurse competence was done. Data was analyzed by SPSS V.11.5.

**Results:** The mean of overall score was 80.32±12.75 in headnurses’ assessment and 73.83 ± 12.63 in nurses’ assessment (P = 0.012). Managers assessed the level of competence in three categories (teaching-coaching, helping role and diagnostic functions) significantly higher than the nurses (P< 0.05).In other categories there was no significant difference.

**Conclusion:** Both of nurses and head nurses assessed the overall level of competence as good. Managers found nurses to
be more competent than did the nurses themselves. So, self assessment is a useful instrument for evaluation of the nurse competence that have so many advantages.

**ABSTRACT NUMBER: P04**

**Readiness For Housemanship Training Among Medical Students In International Medical University (IMU)**

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**Background:** Housemanship period is seen as the most challenging and important period of a doctor's working life. A questionnaire was developed to survey the final year medical students' readiness for housemanship and what accounts for the overall satisfaction, their expectations and perceived satisfaction level of their future experience.

**Methods:** Self-administered questionnaires were distributed to 87 final year medical students (Response rate = 97%) of the International Medical University (IMU) Clinical School, Batu Pahat. Students used a Likert scale to rate how each of the 15 factors would contribute to their job satisfactions during housemanship period. Students also rated their perceived satisfaction level on 12 items. A series of questions were also included to examine their general satisfaction with their preclinical and clinical training experience years.

**Results:** Ninety percent (90%) of the students surveyed received information about housemanship through their seniors. About 80% believed that they were ready for housemanship. Majority of the students (90%) were satisfied with their preclinical training at IMU, especially in Communication Skills, Clinical Skills Training and the Respiratory system. Approximately 96% of the students expressed that they were satisfied with their clinical training at IMU, particularly in O & G, Surgery and Internal Medicine. Students believed that the sense of responsibility, personal growth and advancement, and being able to function as a team member are important factors during the housemanship period.

**Conclusion:** The finding of this survey has provided a basis for improving the preclinical and clinical training in IMU so as to prepare them better for future housemanship training.

**ABSTRACT NUMBER: P05**

**Virtual Pathology Museum**

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**Introduction:** Pathology museums have always been a source of learning and enhancing the understanding of history and medicine from medieval period to the present day. They help the undergraduate & post graduate medical students, researchers, teachers etc. to learn about the morphological changes in the tissue in various diseases, change in the pattern of diseases, changes and advancements of surgical techniques and so on.

**Objectives:**
1. To provide a tool which can facilitate the user to have virtual experience of a museum visit in his computer where all the dimensions of the specimen can be visualised and learned thoroughly without having the burden of picking up the specimen or to carry it to the study area or to visit the museum.
2. This is a simple but new effort to prepare an easily accessible, user friendly teaching resource.

**Method:** By three dimensional photography of the specimen along with relevant description using simple Sony digital camera. Five lesions have been selected for this pilot study from different systems of the body (as follows):

1. Malignant Terratoma of Ovary
2. Intraductal Carcinoma of Breast
3. Multiple Leiomyoma of Uterus
4. Renal Cell Carcinoma
5. Adenocarcinoma of Rectum

**Conclusion:** A cheap and useful teaching resource is obtained which can be improvised and modified according to the subject concerned. It can be of great utility for medical students, medical teachers, post-graduates, surgeons (practising or academicians), pathologists, forensic experts, anatomists, etc. This modality can provide excellent facility for teachings subjects like Medical science, biomedical science, veterinary science, marine biology, plant pathology, dental science and many more.

**ABSTRACT NUMBER: P06**

**Innovations In Students’ Counseling – An Approach To Improve Learning**

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*Manipal College of Pharmaceutical Sciences, Karnataka, India*

**Background:** Students’ Counseling is one of the important approach that facilitates learning competences of student. Over the years, the stereo-typed student counseling process was found to be ineffective and was not able to bring significant change in the learning competences of student. A professional approach to student counseling & change in counseling structures are needed to effectively address the learning concerns of students. In this context, the present study is aimed at finding innovative techniques to redesign the student counseling process in order to make the students understand and learn better.

**Description:** Retrospective analysis of student responses suggested various reasons for learning incompetence: lack of
time, planning, guidance, motivation, appropriate study materials; ineffective reading, memorising; lack of interpersonal relationship and anxiety of examinations. Innovative techniques in student counseling like students appraisal, teacher guardian concept, best performers feedback, fortnight student assessment, experienced mentors, seniors, alumni as members of panel of counseling may help to improve the student’s performance. Some of the techniques applied to a few students in this University has yielded fruitful result.

Recommendation: Universities should take up the initiative to put the innovative counseling techniques into practice so that the counselors can assist the students to become competent learners.

ABSTRACT NUMBER: P07
Faculty Performance Appraisal – A Tool To Improve Quality?
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 Manipal College of Pharmaceutical Sciences, Karnataka, India

Background: Performance appraisal is a routine exercise adopted in a corporate or industry setup. This concept is also felt necessary for faculty working in professional institute for improvement of quality in performance. The main objective of this study was to generate specific points of appraisal suiting to the job responsibility of different cadres of teaching faculty. The appraisal system has been introduced in this university for the institutes under it.

Method: To have measurable and logical parameters in the appraisal of pharmacy faculty, questionnaires were drafted based on the job responsibilities. This was circulated to the teaching faculty (n = 60) to obtain their feedback on the effectiveness of implementation of appraisal system.

Result: The study revealed that 85% felt there is a need of Faculty Performance Appraisal system. The result showed 80% weightage should be given to academic activities, 20% to Research and development including professional achievement & non academic work. Study revealed that performance evaluation be outsourced, introduction of self appraisal concept, three point grade appraisal system. 90% of faculty felt students shall also be a part of evaluation.

Conclusion: Performance appraisal system is a motivating tool in enhancing the performance of the faculty in a professional educational institute. Hence, the appraisal system may be implemented suiting to the job responsibilities of individual faculty.

ABSTRACT NUMBER: P08
Understanding Medical Students Information Needs In Emergency Department
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Background: In teaching hospitals, clinical encounter is an increasingly significant component of medical students’ curriculum and one of the clinical experiences of medical students is emergency medicine. Emergency departments are fast-paced, information-intensive environments where patient care team members must address their information needs quickly and accurately. Unmet information needs of physicians are common but those of medical students are less well understood.

Aim & Objectives: This research was conducted to provide new insights on medical students information needs in emergency departments (ED).

Methods: This quality study examined the information needs of medical students (interns) in the Emergency departments of teaching hospitals of Iran medical sciences university at Tehran town in Iran in 2008. Questionnaires and observations were used to collect data from seventy medical students. Analysis of questionnaire data was conducted with the SPSS application. Chi-square and two-tailed and bi variation correlation tests were used to investigate significant associations among the data.

Results: We observed that the most commonly asked questions related to patient specific information but that they had less number of organisational questions related to hospital policies, procedures, coordination issues, and capacity management issues. The students reported that the majority of their information needs were laboratories (84%) and radiographies (74%) results and the least of those were dead person transfer (1.4%) and medico legal coordination (10%).

Conclusion: Questions enabled the students to function more effectively and keep the unit running smoothly. The low occurrence of organizational questions in the students indicates a few students had understood importance of the interrelationship between clinical and organisational aspects of work in clinical units. This study's findings also support the development of educational programme to promote student knowledge about organisational information and medico legal issues in ED.

A 37
Viability Of Postgraduate Courses In Pharmacy Management: Perceptual Mapping Of The Stakeholders
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Manipal College of Pharmaceutical Sciences, Karnataka, India

Background: To remain and survive in the competitive world in post GATT era, the pharmaceutical companies are now focusing on basic research. There is a great need for bringing in professionalism in pharmaceutical marketing and administration to meet competition. Hence a pharmacy graduate armed with management degree focusing on pharmaceutical marketing aspects would be the right candidate.

With this background the following objectives were formulated:
1. To measure the perception of teaching faculty, students and industry personnel on the need for the post graduate courses in Pharmacy management.
2. To design suitable curriculum and develop new areas of specialisation in the field of pharmacy management to equip the students of future generation with necessary knowledge and skills through such new post graduate courses.

Method: A structured questionnaire was designed to generate necessary inputs to meet the above objectives. Questionnaires were designed to find out the opinion of teaching faculty on existing educational programmes: understand the aspirations, expectations of students regarding the nature of education and training: understand the field experience of Pharma marketing personnel and measure their level of skills.

Non-probability sampling and convenience method was adopted.

Results: Present study indicated that there is a need to develop such courses which would meet the growing demand for pharmaceutical marketing professionals. It also yielded necessary inputs to design the curriculum which is the backbone for the viability of any course.

Conclusion: The new course of Pharmacy management at post graduate level with specialisations in marketing and administration were devised and implemented successfully. The placement record for the post graduates with these specialisations was very encouraging: a valid indicator for the success of these programmes. Although the programme has been successful, continuous efforts have to be put to update the curriculum according to the demands of the industry.
ABSTRACT NUMBER: P11

Simulation Training In Psychiatry: A Resource For London And Beyond?

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NHS London and the London Deanery are keen to develop Simulation training for wide use in Under-graduate, Post-graduate and multi-professional training. While this is intended as an innovative “high-tech.” development it is also highly relevant to “low-tech.” specialities such as psychiatry. Role-playing, use of actors and OSCE/CASC examination are all central to psychiatric training. We are developing these established techniques for use in a wide variety of settings, applicable to various curricula and available to a wide audience if successful. Relevant senior faculty (and interested juniors) are being trained and in turn training others to create clinical scenarios of varying complexity for training of individuals and teams. This will be highly realistic but “safe” training material which allows for reflection, alternative responses, feedback and de-briefing. It is to be externally Quality Assured. All approved learning material will be made available for 24 hour access on-line. Content will reflect high priority issues such as arise in real-life Serious Untoward Incidents and which are of prime relevance to staff, patients and health organisations but allow all relevant staff to learn safely from the experience and improve future outcomes. Communication skills and cultural capability are of particular importance in psychiatric SUlIs and may be of general relevance to all health professionals.

ABSTRACT NUMBER: P12

“London International” – An E-learning Resource For London (Mental) Health Professionals And Colleagues In Developing Countries

Nicholas Bass
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East London has been developing e-learning for local and international use and has also founded a trail-blazing international multi-professional training programme with colleagues in Uganda. Our experience and expertise in treating mental health disorders and supporting health development internationally is now coming together as a growing e-learning resource. London (and especially East London) treats people form a wide variety of ethnic backgrounds from all over the world and this diversity is also reflected in the health workforce. Much of the Simulation training material we are developing (see related submission) will be of general relevance but we are also developing material and particular evaluation methods of relevance to partners in developing country settings. Service development, audit and leadership training are of high importance in addition to clinical training. Evaluation also needs particular attention and invaluable assistance has been provided by the Tropical Health Education Trust. Partners are expected to contribute and the resource is intended for mutual benefit. Web-based training may be difficult to access in many countries so options for pare-based material, e-mailing and mobile phone/PDA communication are also available. We describe examples of training material and evaluation results where available.

ABSTRACT NUMBER: P13

World Class Commissioning: An Innovative Masters Degree Programme

Inam Haq, Brendan O’Connor, Debbie Stock, Breda Flaherty
University of Brighton, Sussex., United Kingdom

Background: World Class Commissioning (WCC) is a strategy designed and launched by the UK Department of Health in December 2007 that aims to empower local commissioning organisations to achieve:
1. Transformation of people’s health and well being outcomes
2. Better care for all (so reducing inequalities)
3. Better value for all

We describe one of the first Masters (MSc) degree programmes in WCC delivered by faculty of the Institute of Postgraduate Medicine at Brighton and Sussex Medical School with links to Brighton Business School.

Methods: The 3-year MSc is designed on a modular basis for part-time study so that teaching can be combined with application sets, reflective opportunities and experiential learning in the workplace to ensure that theory and practice are closely linked. Seven compulsory modules have been developed, whose content maps onto the eleven competencies/learning outcomes described in WCC documentation. The programme comprises a mixture of face-to face teaching, organisational visits, online learning and self-directed study. The final module is an innovative “Commissioning Project” that replaces the standard dissertation required in other MSc programmes. Online learning and discussion will take place using the university Virtual Learning Environment.

Results: 15 students started the course in October 2008, all non-clinicians employed by UK Primary Care Trusts (PCTs). The modules will be delivered over the next two years. The local Strategic Health Authority is encouraging all healthcare managers in the local PCTs to enrol in the programme.

Conclusion: Effective commissioning of healthcare services is seen as vital by UK health policy makers to drive improvement in specific health outcomes within finite resources. This innovative MSc programme is one of the first in the UK to provide an academic underpinning to the process.
Abstract from the International Medical Education Conference 2009

ABSTRACT NUMBER: P14
The Use Of Personal Digital Assistants In Undergraduate Medical Students
Inam Haq, Mark Packer, Tim Vincent, Jil Fairclough
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Background: Personal Digital Assistants (PDAs) are handheld devices that can be used widely by students and health professionals as information resources and personal organisers. The utility of PDAs as learning resources compared with other modalities was investigated in Year 2 students at Brighton and Sussex Medical School.

Methods: 20 Year 2 students volunteered to take part in the study. They were provided with a Palm Corporation PDA and Dr Companion software containing information resources such as the British National Formulary (BNF), electronic textbooks, anatomy pictorial resources and clinical guidelines. Focus groups and questionnaires were used to understand how and when the PDAs were used in daily life both on- and off-campus, and their effect on use of standard information resources such as the library and internet. A control cohort of Y2 students without the PDAs completed questionnaires on information resource use to study any differences arising from PDA use.

Results: Students with PDAs made less library visits (mean at start 1.1 visits, mean at end of study 0.4 visits) compared to the control group (mean at start 1.6, mean 2.0 at end of study). The PDA group tended to use other computer/internet resources less than before the study. The majority of students found the PDA easy to use and the most common applications used were the electronic textbooks, BNF and clinical guidelines. Themes arising from the qualitative data confirmed the utility of PDAs as learning at the point of need and their use as diaries and notebooks. Students felt that the software would be even more useful when they were in the clinical environment on a more permanent basis from year 3 onwards.

Conclusion: PDAs have shown to be useful learning resources for undergraduate medical students. Further work is ongoing, looking at their impact on students in the clinical setting.

ABSTRACT NUMBER: P15
Medical And Design Students Working Together: What Do They Learn From Each Other? A New Approach To Interdisciplinary Learning
Inam Haq, Tom Ainsworth, Chris Rose
University of Brighton, Sussex, United Kingdom

Background: The document “Tomorrow's Doctors” published by the General Medical Council emphasises working as a member of a multidisciplinary team. This abstract describes a new approach to interdisciplinary learning between design and medical students.

Methods: An 8-week Student Selected Component (SSC) was developed involving year 2 design students and year 3 medical students working together. Both sets of students met for a half-day each week of the SSC, between October and December 2008. Students experienced each other's working environments, and were taken on a guided tour of the main teaching hospital site, facilitated by the authors. Students were asked to comment on the impact of the hospital design on healthcare workers, patients and visitors. Students worked together to present their findings, together with suggestions as to how the environment could be changed to facilitate patient and staff wellbeing. All conversations were taped and will be analysed fully after a second cohort finish the SSC in March 2009.

Results: Initial analysis of the encounters with the students yielded interesting findings. The language used in the different disciplines often required explanation by both sets of students to each other. It became clear during the discussions, particularly around the hospital environment, that both disciplines required critical analysis skills and the use of an evidence-base to inform research and practice. Medical students commented that the experiences had taught them another way of describing their environment, using abstract as well as concrete descriptors, that would help them in their encounters with patients, and that design and medicine required the development of a professional persona in addition to the acquisition of knowledge and skills.

Conclusion: Design and medical students working together is feasible and leads to benefits in both groups in terms of breaking down perceived boundaries between disciplines that can only help in facilitating learning.

ABSTRACT NUMBER: P16
The Performance Of Students In End Of Semester 7 And Surgery Examinations In IMU Clinical School: A Prospective Evaluation Over A Two-Year Period
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Background: Surgery is one of the major postings in IMU clinical school curriculum. Semester 7 surgery examination comprises Short Answer Question (SAQ), Objective Structured Practical Examination (OSPE), Short and Long Objective Structured Clinical Examination (OSCE). The semester 9 surgery examination comprises Modified Essay Question (MEQ), OSPE, Short and Long OSCE. So far there has been no available data to show the performance of the students in all these components. The purpose of this survey is to evaluate the performance of students in semester 7 & 9 surgery examinations and the reliability of the surgery examination over a period of two years (5 examinations).

Methods: A total of 5 cohorts of students' score from August 2006 to August 2008 was recruited for analysis. The semester
7 and semester 9 cohorts each comprised 380 candidates and 356 candidates respectively. The mean score for all the components of the surgery papers were determined from their examination results. ANOVA test was performed to evaluate the difference in the mean score of all the components of surgery examinations. Pearson correlation was used to determine the degree of correlation between the scores in theory papers and clinical OSCEs. Cronbach’s Alpha value was calculated using SPSS to determine the reliability of the examinations.

**Results:** The mean score for all the components for semester 7 & 9 surgery examination is shown in Table 1. There was no statistical significant difference in the mean score of the 5 cohorts of students for both semester 7 & 9 in all the components of the examinations.

In semester 7 examination, the students performed well in both the short and long OSCE with the mean score ranging from 73 – 74 over 100. This had been consistent for all 5 past examinations under scrutiny. For OSPE, the mean mark ranged from 68 – 76 over 100. For SAQ, students scored lower in both the August 2007 & 2008 examinations with the mean score of 51 & 53 over 100. The students did well in the February 2007 & 2008 exams with the mean score ranging 70 – 80 over 100. (Figure 1)

There was a fairly good correlation between the scores for theory paper versus clinical OSCE. The students who did well in theory were also observed to perform well in the clinical OSCE; (r = 0.562), as shown in Figure 2.

In semester 9 examination, the students also performed well in both the short and long OSCE with the mean score ranging from 66 – 75 over 100. For the OSPE, students scored lower in February 2008 exam, but the other 3 exams showed a fairly constant score from 65 to 78 over 100. For MEQ, there was a very constant score of 68 – 70 over 100. (Figure 3) There was poor correlation between the scores for theory paper versus clinical OSCE in semester 9 exam. (r = 0.261), as shown in Figure 4.

Generally students performed better in long OSCE compared to short OSCE in both semester 7&9, but it was not significant statistically. (p = 0.891)

The Cronbach’s alpha value of reliability test for semester 7 was consistent throughout the 5 examinations with the average of 0.5. Semester 9 examinations had a higher alpha value of 0.6-0.7, except February 2008 exam where the value was 0.2, which is very low. Alpha value of around 0.7 is considered having good reliability.

**Conclusion:** This study demonstrates that the results for end of semester 7 and 9 surgery examinations in IMU clinical school had been good in the past 5 major examinations. The results may indicate the training of surgery and the level of the content tested are fairly consistent. The scores for short OSCE for both semester 7 & 9 was lower as compared to Long OSCE. The possible explanation for this is that the short OSCE is a 5-minute stations which requires fast thinking and spot diagnosis, whereas the long OSCE is a 14-minute station mostly involving history taking. The fair correlation between theory and OSCE in semester 7 showed that the candidates were able to master well both knowledge and skills. However the semester 9 students were not as good in this. The possible reason was that the semester 9 examinations involved more clinical management; where they may be lacking. More training in this aspect for semester 9 is necessary. The reliability test showed that the questions can be improved further in order to achieve an accepted value of Cronbach’s alpha of 0.7 for both semester 7 & 9 examinations. This can be achieved by increasing the number of topics and number of questions in all the components of the surgery examination.

Table 1: Mean score of various component of end of semester 7 & 9 surgery examination and the reliability alpha value from August 2006 to August 2008

<table>
<thead>
<tr>
<th>Component</th>
<th>Aug 06</th>
<th>Feb 07</th>
<th>Aug 07</th>
<th>Feb 08</th>
<th>Aug 08</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAQ</td>
<td>68.0</td>
<td>80</td>
<td>53</td>
<td>77</td>
<td>51</td>
<td>0.391</td>
</tr>
<tr>
<td>OSPE</td>
<td>68.4</td>
<td>75</td>
<td>81</td>
<td>75</td>
<td>76</td>
<td>0.235</td>
</tr>
<tr>
<td>Short OSCE</td>
<td>73.1</td>
<td>74.3</td>
<td>71.1</td>
<td>74.3</td>
<td>74.1</td>
<td>0.891</td>
</tr>
<tr>
<td>Long OSCE</td>
<td>75.5</td>
<td>76.5</td>
<td>72</td>
<td>76.5</td>
<td>74.5</td>
<td>0.768</td>
</tr>
<tr>
<td>Overall</td>
<td>69.1</td>
<td>71.2</td>
<td>64.4</td>
<td>71.5</td>
<td>65.1</td>
<td>0.563</td>
</tr>
</tbody>
</table>

| Reliability | 0.511 | 0.579 | 0.544 | 0.551 | 0.563 |

<table>
<thead>
<tr>
<th>Component</th>
<th>Aug 06</th>
<th>Feb 07</th>
<th>Aug 07</th>
<th>Feb 08</th>
<th>Aug 08</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEQ</td>
<td>69.6</td>
<td>70.0</td>
<td>69.0</td>
<td>70.8</td>
<td>67.6</td>
<td>0.456</td>
</tr>
<tr>
<td>OSPE</td>
<td>60.2</td>
<td>78.0</td>
<td>65.0</td>
<td>78.5</td>
<td>78.5</td>
<td>0.342</td>
</tr>
<tr>
<td>Short OSCE</td>
<td>66.3</td>
<td>67.4</td>
<td>67.0</td>
<td>68.75</td>
<td>71.7</td>
<td>0.812</td>
</tr>
<tr>
<td>Long OSCE</td>
<td>69.4</td>
<td>71.0</td>
<td>72.5</td>
<td>73.2</td>
<td>73.1</td>
<td>0.789</td>
</tr>
<tr>
<td>Overall</td>
<td>0.628</td>
<td>0.721</td>
<td>0.651</td>
<td>0.287</td>
<td>0.672</td>
<td></td>
</tr>
</tbody>
</table>

| Reliability | 0.628 | 0.721 | 0.651 | 0.287 | 0.672 |

Figure 1: Mean score of semester 7 surgery exam components from Aug 2006 – Aug 2008.

Figure 2: Semester 7 surgery performance: correlation between theory paper and OSCE

Pearson correlation r = 0.562
ABSTRACT NUMBER: P17

Foundation Module – Medical And Dental Students’ Perception Of Learning Together

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Background: IMU launched its Dentistry course in February 2008. One of the modules in the first year is Foundation whereby the dental students shared the same classes and activities as the first year medical students.

Methods: An evaluation was undertaken to compare feedback from the medical and dental students regarding the Foundation module. A 36-item statement tool was scored on a Likert-type scale by the students.

Results: A total of 25 in a class of 44 dental students (56.8%) responded as compared to 57 of a class of 224 medical students (25.5%). Eleven items were found to show statistical significant differences (p<0.05) in the responses of the medical and dental students, some of which are presented in this preliminary report. The dental students unlike the medical students somewhat disagreed with the statements that the course activities helped them to meet the learning outcomes, recommended references were readily available and relevant to the course content. They also somewhat disagreed that the recommended references improved their understanding of the Foundation module. With respect to the problem-based learning (PBL) sessions, the medical students in contrast to the dental students, somewhat agreed that the PBL triggers have stimulated their interest, identified gaps in knowledge, have covered the learning objectives of the course and that the process assessment was useful. In summary, although the students agreed that there are benefits derived from studying together, there are differences in the perception regarding some aspects of the module.

Conclusion: It is therefore recommended that the dental students be encouraged towards a more positive learning outlook in order to enhance the learning process for the Foundation module.

ABSTRACT NUMBER: P18

Reflections Of A Novice Problem-Based Learning (PBL) Group

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Background: Critical reasoning, collaborative and independent study are central to the philosophy of PBL. For the PBL to be used as a successful method of learning, the PBL process, PBL content and the facilitation are three important aspects that require specific consideration. It is important to obtain qualitative feedback from students who participate in PBL in order to review and to recommend improvements to teaching learning strategies.

Methods: A group of first year medical students who participated in PBL for the first time were requested to post their individual reflections on the PBL process and facilitation, after completion of six three hour PBL sessions. The reflections on PBL content were not invited. The reflections were analysed by two academics who were not involved in teaching the group of students.

Results: Seven students out of 10 posted their reflections. Learning from peers, team spirit, disappearance of nervousness and confidence building over the weeks (self discovery), learning to communicate, preparedness, motivation for timely study and research on the topic, satisfaction, enjoyable learning were recurring themes. The writings were self critical on their contribution or lack of contribution to the PBL process. With regard to facilitation, the ability to stimulate and motivate students and formative feedback were important positive reflections.

Conclusions: It is important to obtain qualitative feedback from students as it provides depth when analyzing data. The group of students appears to have adequately achieved the objectives with regard to the PBL process. The facilitation skills are thought to be satisfactory by students. It is important to provide structured broad themes or areas to comment upon when seeking feedback from students to ensure completeness of data.
Abstract from the International Medical Education Conference 2009

ABSTRACT NUMBER: P19
A Study Of Patients Comfort Levels And Attitudes Regarding Medical Student Involvement In Different Medical Specialties
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Background: It is unknown whether the intrinsic differences between specialties may influence the degree to which patients are comfortable with student involvement in their care.

Aim: To investigate whether patient comfort varies across specialties.

Methods: A total of 500 patients were surveyed in teaching clinics in Internal Medicine, General Surgery, and Paediatrics in the Teaching hospitals in Najaf city. The patients were asked to rate the following statements on the following scale:

- Medical student involvement improves the quality of my care.
- I am satisfied with the amount of time I have had medical students involved in my care.
- I am satisfied with the level of involvement of medical students involved in my care.
- Medical students should become involved in patient care early in medical school.
- Clinical teaching using real patients is important in medical student education.
- I enjoyed my experience with medical student involvement in my care.

Given a choice between attending a teaching hospital with medical students or a nonteaching hospital without medical students, I would prefer a teaching hospital

Results: The majority of patients ranged in age from 30 – 65 years, the mean age being 40 years with 52 percent of the group being female. A similar comfort levels and attitudes regarding medical student involvement for the majority of parameters assessed was found.

Conclusion: This study has important implications for medical educators in those specialties by supporting their ability to apply the results and recommendations of studies conducted in other specialties to their own.

ABSTRACT NUMBER: P20
Mini-CEX: Inter-Examiner Variability And A Comparison With ‘Long-Case’ Performance
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Introduction: We introduced a modified Mini Clinical Evaluation Exercise (Mini-CEX) as a formative assessment during a 7-week posting in Internal Medicine in Semester 6. The first Mini-CEX (Mini-CEX-1, in week 3) and ‘Long-Case’ (LC, in week 7) were assessed by the same assessor, while the second Mini-CEX (Mini-CEX-2, in week 5) was rotated amongst the assessors. All assessors were IMU academic staff experienced in clinical assessments. They had access to a video on Mini-CEX and received written instructions on the procedures.

The objective was to investigate inter-examiner variability in Mini-CEX and correlate student performances in Mini-CEX with LC.

Methods: Complete data was available from 69 students who did both Mini-CEXs and the summative end-of-posting LC. The marks from Mini-CEX-1, Mini-CEX-2 and LC were correlated. The mean marks awarded by the assessors were compared using ANOVA.

Results: For Mini-CEX-1, the mean mark given by individual assessors had 2 outliers: A, who awarded a significantly lower (p<0.005) mean mark of 39.6 (+/-9.6) than 6 others individually (range of means 56.1-73.9); and B who awarded a significantly higher (p<0.01) mean mark of 73.9 (+/-11.1) than 4 others (range of means 39.6-63.2). For Mini-CEX-2, the mean mark given by B (83.1+/-14.1) was significantly higher (p<0.001) than the rest (range of means 50.5 – 58.5). The mean LC marks did not differ among the assessors. There was a significant positive correlation between Mini-CEX-1 and LC (correlation coefficient 0.451; p<0.001).

Discussion: The results show appreciable inter-examiner variability in the Mini-CEX but not in LC. The positive correlation between Mini-CEX-1 and LC maybe because of a common factor: each student is assessed by the same assessor on both occasions. It is necessary to have more teacher-training on conducting Mini-CEX in order to reduce inter-examiner variability.

ABSTRACT NUMBER: P21
How Significant Is The Parental History Of Diabetes? Clinical Realities And Student Perceptions
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Introduction: During clinical postings we observed that younger persons with Type 2 Diabetes Mellitus (T2DM) have a stronger family history of the illness. There are few reports from Malaysia on this aspect. We therefore investigated the relationships between a parental history of T2DM, its age-of-onset, and contrasted this with student knowledge of this aspect.

Methods: We did a cross-section study on 314 out-patient diabetics from Seremban. Data on family history, age-of-onset of T2DM, and ethnicity were collected by an interviewer-completed questionnaire. Student knowledge on family history in T2DM was subsequently assessed on a purposive
sample of 49 medical students (Semester 6 and 7) using a questionnaire.

**Results:** Patient sample: 128 males, 186 females; mean age 59.1 years (±11.6); 81(25.8%) Malays, 122(38.9%) Chinese, 111(35.4%) Indian/Ceylonese.

Parental history of T2DM: In 38 (12.1%) father was affected; in 84 (26.8%) mother, in 42 (13.4%) both parents, and in 150 (47.8%) neither. The mean age of-onset of the former 3 groups was significantly lower (45.5±10.9 years) than when neither parent was affected (51.7±11.3), p<0.0005. A significantly higher proportion of those with age-of-onset <40 years have a parental history of T2DM (53/79) compared to older age-of-onset (111/235) >41year (X2 = 9.31; p = 0.002). Mean age-of-onset of T2DM was significantly lower in Malays (46.2 ± 9.6) than Chinese (50.7 ± 12.6); p = 0.018. However, logistic regression models (age-of-onset as dependent variable) showed practically insignificant R2 values.

Student awareness: 43(93.5%) felt T2DM is increasingly seen in younger age groups, 37(75.5%) thought prevalence varies with parental history and 26(53.1%) with ethnicity.

**Discussion:** An earlier age-of-onset of T2DM is associated with a positive parental history. Significant ethnic differences in the age-of-onset maybe an indication for earlier screening for the disease and to commence preventive measures. A majority of students are aware of these salient points in the family history.

**ABSTRACT NUMBER: P22**

Are Students ‘Blending’ Their Learning? A Pilot Study Of IT Use By Medical Students At IMU

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**Introduction:** IMU’s Learning Model encourages IT in learning. Aligned to this Model, the Department of Internal Medicine (IM) hopes to develop a module that uses the principles of Blended Learning (BL). We therefore sought to investigate IT-use by medical students during IM postings.

**Method:** Semester 6, 9 and 10 students doing IM postings completed a questionnaire simultaneously on a Thursday (in order to capture mid-week study behaviours). Data was collected on IT-use and its role in their learning

**Results:** There were 49 completed questionnaires: semester 6 (n=20), 9 (n=15) and10 (n=12); 23 males, 26 females; mean age 23.5±(1.8-4.8) years. The mean 24-hour-recall of hours spent reading [textbooks, journals or notes] vs. using IT-for-studies vs. using IT-for-recreation; 3.08(+/-2.09) vs. 2.91(+/-3.05) vs. 1.95(+/-2.02); were not significantly different (p>0.088).

Mean duration of IT-use-for-studies was significantly higher in semester 10 (6.0 hours+/3.72 over preceding 24 hours) vs. semesters 9 (2.11+/2.62) and vs. semester 6 (1.63+/1.01); (all p<0.001). The mean duration of Internet-use-for-studies followed a similar pattern. Durations of IT-use-for-studies vs. duration for reading text had a correlation coefficient of 0.458 (p = 0.002).

Internet was used to access information (38/47, 80.9%), to share information (22/47, 46.8%), and to produce presentations (22/47, 46.8%). Only 13/46 (27.7%) used it for discussions. 26 students (= 53.1%) read e-journals, 26 (53.1%) read e-textbooks, 18(36.7%) visited ‘wikis’, 13 (26.5%) visited blogs, and 7 (14.3%) participated in e-tutorials, frequently (i.e.>once weekly).

**Conclusion:** A majority use IT to ‘blend’ their learning, more so in Semester 10. Correlation between duration of IT-use-for-studies and duration of reading text may indicate that more studious students prefer using IT-for-studies. Accessing information appears to the main objective of IT and internet-use.

BL goes beyond using IT to access information and defines its role as a platform and medium for discussions, interactions, and learning. This would require students (and staff) to change their behaviours (and for a major restructuring of curriculum processes).

**ABSTRACT NUMBER: P23**

Extended Response Essay Questions As Tool To Assess Higher Order Skills Of Undergraduate Medical Students – A Re-Look

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**Background:** The need to develop higher order thinking skills in students is an important element of undergraduate medical education. Extended Response Essay Questions (EREQ) have a lot of potential and can be used to assess higher order skills in students, including problem solving, decision making, ability to correlate topics, and the necessary written communication skills.

**Method:** In this study we compared the performance of two categories of students (successful and unsuccessful) undertaking Extended Response Essay Questions (EREQ) and restricted response questions (RRQ) in the theory examination.

**Result and Conclusion:** Students belonging to the ‘successful’ category fared well in both type of questions. However, the weaker students did significantly better in the RRQ (P<0.001) when compared to EREQ. The reasons may be numerous, including the fact that the RRQs are more objective and do not require the actual assimilation of concepts. Inclusion of EREQ in examinations will encourage the students to develop higher order thinking skills. Hence, efforts should be made to incorporate EREQ into assessments along with other restricted response/objective type of questions in under gradate medical course.
ABSTRACT NUMBER: P24

Students’ Perception On The Community And Family Case Study (CFCS) Programme Among Clinical Students
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Background: A medical student must be able to understand the patient not only in the hospital environment but also in his home environment. At the International Medical University (IMU), the medical curriculum evolves around eight explicitly identified outcomes and one of the outcomes is the family and community issues in health care. To achieve this outcome the CFCS programme is introduced in the IMU curriculum and this will enable the student to be a holistic doctor in the future. The CFCS programme runs from Semester 6 to Semester 10 and the student is exposed to the same patient for 2 1/2 years and the follow up is done on the same patient regularly by two students. The aim of this paper is to evaluate and get feedback on the CFCS program.

Methods: A survey among the Semester 10 students (who completed the CFCS) was done using an open ended questionnaire. Students were asked to provide feedback on whether they liked the CFCS programme and the problems relating to the various issues relating to CFCS.

Results: A total of 66 students provided their responses and majority of them were Malays (54.5%), followed by Indian (28.8%) and Chinese (15.1%). Majority of the patients selected were diabetic patients with multiple complications. About 89.2% of the students agreed that they liked the CFSC program. Some of the reasons citing their reasons as: A good learning platform, it improved their communication and clinical skills, helped them to understand patients better, and it provided avenue for new learning experience. Majority of the students (63.6%) did not find any difficulty in getting index patients; however for those who found it difficult to get the patient the major reasons cited were not getting the right case (15.2%), reluctance of patients to participate (10.6%), and lack of cooperation from patient and family (4.5). The students learnt how to handle patients (54.2%), communicate more effectively (18.6%), acquire the patient management skills (22.3%). They also felt that the program helped inculcate teamwork (13.6) among them and make them appreciate community and health in a more holistic manner. There were few who disliked the CFCS programme and they cited time constrain, long duration, and distance to travel as their main reasons.

Conclusion: The CFCS program provides a good opportunity for the students to understand the patient in his home environment and the facilities available for the patient outside the hospital environment. Majority of the students had favorable opinion regarding the CFCS programme, however a few cited selecting the index patients, the reluctance of the patient to participate and the regular travel to the patients home as some of the problem.

ABSTRACT NUMBER: P25

Reflections On Blended Learning:
A Phenomenographic Study
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Background: Driven by the demand to increase access to learning opportunities, educators are continually challenged to develop and integrate instructional delivery options and one such is Blended Learning (BL). Blended learning (BL), the thoughtful integration of classroom and online learning environments is transforming higher education by providing more engaged learning experiences for students. Without impacting instructional integrity, educators develop new techniques and implement new techniques. How does the learner accept and value this? This study aims to describe and understand the use of blended learning from the student perspective in terms of strengths, weaknesses, opportunities and threats.

Methodology: The approach was phenomenographic, with a qualitative study design using interviews and observations on five batches of students ranging in number from 6 in a group to 25.

Results: The outcomes of the study identify strengths, weaknesses, opportunities and threats of blended learning. It was possible to explore students’ views on potential uses of blended learning, the effectiveness of such a study environment, the extent to which students are developing in educationally-meaningful ways and how they could improve their self-directed learning skills. The blended format with its online component afforded less pressure than a face to face exam, but there was still the pressure of keeping up.

Conclusion: BL incorporates many different learning styles that can be accomplished through the use of ‘blended’ virtual and physical resources and can be used as an alternative approach in teaching and learning. The BL format is more interactive and triggers greater awareness of participants’ own knowledge gaps which leads to deeper learning. BL can address education needs in a supportive environment that is both enjoyable and competitive.
Abstract from the International Medical Education Conference 2009

A specially designed pre-tested questionnaire was used to assess students’ perception on the project in general, in helping to understand community health needs and services, in enhancing communication skill, as a learning opportunity, and in enhancing confidence in planning and implementing. Students rated their perception on a six-point Likert scale where 1 – 3 indicated disagreement with the statement while 4 – 6 signified agreement. The survey involved students of two cohorts.

Results: There were 111 respondents from M2/07 cohort and 164 from M1/08 cohort. The mean scores on students’ perception ranged from 4.533 to 4.909. Based on favourable responses 93.1% said that the project enabled to them to understand health needs of the community better, 92.7% said it helped them to be more caring and 89.8% said it helped to improve communication skills. 96% said the project provided more confidence in planning and implementing a project. Students of M1/08 gave slightly higher ratings on all aspects assessed. However these differences are not statistically significant.

Conclusion: This project provided opportunities for students to learn health related issues in the community. It helped in the IMUs’ goal of producing ‘caring doctors’. The questionnaire designed for this study could be used by the Centre for Medical Education to evaluate this learning activity in the future.

ABSTRACT NUMBER: P27

Learning Issues In PBLs: Do Learners Achieve The Expected?

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Background: In problem based learning (PBL), developing desirable learning issues plays an important role in closing the gaps in the knowledge component. Brain storming will enable to appreciate the contents the learner already knows and to identify the knowledge gaps which exist as learning issues. The learner will focus on obtaining more information during the preparative period, based on the learning issues developed as a group. At the second phase of the PBL activity the new information acquired are discussed.

The facilitators role in the PBL is to direct the learners towards developing the desirable learning issues. The learning issues are predetermined by the content experts who developed the PBL triggers and are included in the facilitator guide. The objective of this study is to compare the learning issues developed by the learners with that of the expected learning issues.

Method: The PBLs in the haematology system course was used in the study. The leader of each PBL group was instructed to electronically mail the learning issues the group developed to the system coordinator at the end of each PBL session. The learning issues developed by students were compared with the expected learning issues by four academics. The extent, depth and relevance were analysed using a scale from 1 to 12. A score of 3 is given for each of the institutional outcomes achieved by the student learning issues.

Results: Responses were received from 45 PBL sessions. The percentages of the learning issues developed by student groups matching with the expected outcomes according to the criteria defined ranges from 67.36 to 76.19 %. The inter-rater reliability among the three evaluators ranges from 0.689 to 0.716.

Conclusion: The results indicate that the learners achieve the expected outcome to a greater extent. Measures for further improvement should be explored.

ABSTRACT NUMBER: P28

A Study On The Learning Styles Of Medical Laboratory Technology Students At The Manipal University, India

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Background: Approaches to studying and perceptions of teaching have profound influences on the quality of student learning. The way that students approach their learning in turn decides the outcome of any educational endeavor. This study was designed to identify the learning approaches of students enrolled to the medical laboratory technology courses of Manipal University, India.

Method: The study was carried out among medical laboratory technology students at the Manipal College of Allied Health Sciences, Manipal, India using the Approaches and Study Skills Inventory (ASSIST) instrument. Respondents had to indicate their degree of agreement with a set of statements using a Likert-type scale. Based on the statements used in the inventory, three main learning styles and two types of teaching were identified. The median scores among different subgroups were compared using appropriate non-parametric tests (p<0.05).

Results: 49 students participated in this study. The median scores for deep and surface learning styles were 61 and 52 respectively (maximum score = 80). The scores for strategic learning was 72 (maximum score = 100). No clear preference for any particular type of teaching was noticed.

Conclusion: Our study shows that students enrolled for medical laboratory technology courses preferred strategic and deep learning approaches. A study on learning environment of this cohort would provide information that help in planning teaching learning sessions and deciding on appropriate assessment methods.
**ABSTRACT NUMBER: P29**

Pre-Clinical Dental Students Feedback On Teaching Improvement

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**Background:** In dental education, continual quality improvement (CQI) may be considered as systematic efforts of dental schools to improve the quality of their education programmes, research and patient care. With regard to dental education programmes, greater emphasis has been placed on the monitoring of its teaching-learning processes in view of attaining accountability, quality improvement and programme accreditation. This paper aims to describe preclinical dental students’ views on the present teaching-learning activities and their respective assessment methods.

**Methods:** A self-administered questionnaire survey was carried out among the first and second year dental students of Faculty of Dentistry, Universiti Kebangsaan Malaysia. The survey sought to elicit students’ responses towards content, organisation, seminar/tutorials, assessment methods and course materials of nine basic medical and dental subjects. Students were asked to rate the survey items as either: Good, Fine or Needs Improvement. Survey forms were distributed by administrative support staff during two scheduled sessions in the last week of the 2007 – 2008 academic session.

**Results:** For the first year, subjects that scored the most Good were Oral Biology for content and course materials, and Biochemistry for Organisation, Seminar/Tutorials and Assessment Methods. For the second year, the subject that scored the most Good was Operative Dentistry for four out of five items. While content and organisation of courses were generally good, areas of concern identified as needing improvement were conduct of seminar/tutorials and assessment methods.

**Conclusion:** Students identified that conduct of seminar/tutorials and methods of assessment were items that should be improved in order to enhance the quality of teaching-learning activities within the preclinical dental curriculum.

**ABSTRACT NUMBER: P30**

Practical Approach For Smooth Transition From Pre-Clinical Periodontics To Patient Care

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**Background:** Undergraduate periodontic curriculum requires graduates to be competent in diagnose periodontal cases and performing non-surgical treatment to patients. However, applying knowledge and skills from managing a ‘phantom-head’ to real life patients can be difficult for most new clinical dental students although simulation clinics try to adopt the most realistic environment for patient care. A structured and systematic approach is important to assist students to acquire sufficient periodontal assessment and root debridement skills in a simulated manner before adopting these skills to a real life situation.

**Aim of Module:** The Universiti Kebangsaan Malaysia (UKM) Periodontic Clinical Simulation Module aims to deliver a practical teaching-learning method for pre-clinical students to examine the periodontium and perform non-surgical debridement on patients before they enter the clinical year.

**Description of Module:** This module takes place in Year 3 of the Doctor in Dental Surgery (DDS) programme. It comprised of didactic learning, a clinical simulation component and clinical practice. During didactic phase students learn the basic anatomy of periodontium, periodontal probing techniques and use of instrumentations in the form lectures, tutorials and demonstration. During the simulation exercises students will go through identification of instruments and sharpening, periodontal probing, root debridement and working positioning. A comprehensive manual will be given to guide the students throughout the sessions. Having passed the simulation exercises, students will be allowed to perform non-surgical debridement on real-life patients. Students’ knowledge and skills are assessed through 2 phases: immediately after the simulation and during the actual clinical practice.

**Conclusion:** A comprehensive simulation module will ensure a smooth transition from simulation laboratory to clinics and also be able to make students more comfortable and confident to perform treatment to patients. In general, positive feedback by the students was achieved from the module and most of the students found it had provided them good preclinical exercises.

**ABSTRACT NUMBER: P31**

Knowledge And Perceived Clinical Competency In Preventive Dentistry Among Dental Students In Universiti Kebangsaan Malaysia

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**Background:** The objectives of this paper is to investigate the knowledge, attitude, self-reported practices and self-perceived competency of Universiti Kebangsaan Malaysia (UKM) dental students in relation to providing preventive oral care for their patients in clinics. It also presents feedback from two different cohort of UKM dental students; one that received the specialty-based clinical teaching in preventive dentistry and one that did not.

**Methods:** Self-administered questionnaire forms were distributed to the clinical students at the end of each academic session. The questionnaire comprised of:
i) Twenty questions to test the students’ knowledge in preventive care, ii) Students’ attitude towards preventive care, iii) Self-reported preventive care practices, iv) Barriers to preventive care, and v) Self-perceived competency.

Results: More than half of the students from both groups have reported that they provide preventive care to patients because of their own awareness. Limited sessions and inadequate number of patients were among the barriers faced by the students. Students in the group receiving specialty-based clinical teaching showed improved knowledge in preventive care and felt more competent in the clinics.

Conclusion: Dental students in this study generally have good knowledge of and positive attitude towards preventive dentistry. Concerns are being addressed by department as well as the curriculum committee as teaching of preventive dentistry has to be a collaborative effort that cuts across all disciplines.

ABSTRACT NUMBER: P32

Evaluation Of PBL Session By Students And Tutors Using Rubrics: A Comparative Study

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Background: Problem based learning (PBL) is said to stimulate student’s motivation and their interest towards learning. PBL is an educational approach that is being implemented differently in different medical schools. PBL was introduced in the undergraduate medical program at Melaka Manipal Medical College (MMMC), Manipal Campus from September 2006 admissions onwards. Learning approaches of students have been found to be influenced by a number of factors including assessment methods. Students can accomplish the role of assessment of the evaluation system by giving responsible feedback in the form of self assessment ratings using a simple rubric scale. To discover whether the evaluation system being used in PBL session of Pharmacology undergraduate medical program in MMC, Manipal Campus was fulfilling its intended goals, the authors used the rubric scale of assessment.

Methods: To the students of September 2006 Batch (n = 113), rubric scale, a set of criteria to be accomplished and which can be used as a guide to improve performance was given prior to their exposure to Pharmacology PBL exercise. Immediately after the brainstorming session of the PBL, students’ self evaluation scorings were taken and compared with the respective ratings given by the tutors using paired ‘T’ Test.

Results: After analyzing both the ratings of 113 students i.e. self as well as from PBL tutors, it was found that there is no significant difference between the two.

Conclusion: From the above study it is clear that the student’s self evaluations of Pharmacology PBL session in the MMC are similar to that of their tutors.