

ABSTRACT NUMBER : 0C-01

From Compliance To Concordance: Patient-Health Care Professional Relationship To Enhance Treatment Outcomes In Type 2 Diabetes Management

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Background: There is a lack of diabetic control among people with diabetes in Malaysia. One of the ways of enhancing adherence is to improve the doctor-patient relationship. With this insight, health care professionals (HCPs) need to incorporate the Concordance Model in their relationship with their patients to enhance treatment outcomes. There were numerous studies that had been done concerning patient-doctor relationship but little was done in terms of concordance and type 2 diabetes in Malaysia. Concordant consultations between patients and their health care professionals may help to enhance self-management and improve the outcomes in diabetic care. Thus this study is set to explore the perspectives and experiences of health care professionals (HCPs) in managing Type 2 diabetes and provide recommendations that aim to enhance adherence to treatment and help patients to improve their self-management skills.

Methods: In-depth interviews were carried out on a purposeful sample of patients and their health care professionals (HCPs). Interviews were recorded, transcribed and audiotapes were analysed using NVivo software to identify emerging themes and code according to categories. Interviews were conducted in an Endocrinology clinic in Malaysia with 18 Malay patients (15-75 years, 9 males and 9 females) and 13 HCPs.

Results: Themes that emerged from interviews with the HCPs included not familiar with the concept, willing to adopt the model after being briefed of the concept, those familiar with the concept raised issues such as initiatives, motivation, cultural, knowledge of diabetes among the patients and their education levels, time, health care and management system and continuity of care were barriers to concordant consultations.

Conclusions: More positive approaches are needed in diabetes management and HCPs involved need to understand patients' beliefs about their diabetes and constraints to improve health outcomes. Barriers to concordant relationships if addressed might have a significant impact on diabetic self-management.

ABSTRACT NUMBER: 0C-02

Developing Professionalism In Future Doctors

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Background: Developing professionalism in the next generation of doctors is increasingly being seen as a priority for Medical Schools and has been the subject of much debate in recent years.

This presentation will draw on a recent comprehensive systematic review of the literature in this field. It will focus particularly on the evidence currently available on methods used by Medical Schools to promote medical professionalism.

A wide range of definitions of professionalism are being used by Medical Schools across the world, albeit with areas of commonality between them. There is some evidence to support actions by Medical Schools on practical steps that they might take to support their students to develop their professional behaviours. The evidence falls into five themes – namely curriculum design, selection of students, methods for teaching and supporting learning, approaches to assessment, and faculty development. However, there are significant limitations in the evidence currently available in this field – particularly in terms of its range and depth and especially in the areas of student selection and faculty development.

Conclusion: It is concluded that, although the evidence remains limited, the evidence does support Medical Schools considering taking action in these five areas but further research is urgently needed.

ABSTRACT NUMBER : OC-03

Providing Inter-Professional Communication Skills Training To UK Undergraduate Medical, Nursing And Healthcare Students – Reflections on Innovative Teaching Methods

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Background: Communication Skills Training has been embedded into the UK medical students curricula for some years and has more recently been integrated with other healthcare undergraduates timetables following the promotion of inter-professional education (IPE). In addition stringent documentation of competencies using an e-portfolio system for qualified doctors within the UK has been introduced as the National Health Service (NHS) adopts a more 'patient safety agenda'. This has driven the need for more innovative teaching methods to assess communication competency in preparing students for practice in complex situations, such as breaking bad news. 'staff have often stated that training in breaking bad news is often insufficient, requiring specific teaching.' Garg et al (1997).

Methods: At South Tees NHS Trust UK, following a review of communication models[^], Medical, Nursing, Occupational Therapy, Physiotherapy and Radiology Students are inconspicuously videoed in a simulated clinical environment with a trained role player in complex communication scenarios. Breaking bad news, discussing a complex diagnosis, disclosing a medical error and dealing with a difficult relative the scenarios are then reviewed with tutor, actor and peer feedback from the Cambridge Calgary Communication Model. Students are asked to identify one communication strategy to adopt in future clinical practice and also to reflect on their communication using Kolb's cycle of learning.

Results: Students are initially apprehensive of learning alongside other professional students and although find being videoed stressful, I value the experience and much learning to apply to practice is demonstrated. Workshops require careful planning, teambuilding and icebreaking strategies and a high ratio of teachers to students. A safety net is also required for those students who might find the content distressing.

A study of impact upon practice of participating in these workshops is currently being undertaken. A video of medical and nursing students breaking bad news to a relative will be shown along with reflective feedback from the students.

ABSTRACT NUMBER: OC-04

Integrated Physiology As A Model For Student Active Learning In Brawijaya Medical Faculty, Malang – Indonesia

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Background: Physiology is known as one of basic medical sciences, therefore it is called as a 'theoretical' subject by most of the students, eventhough there is a physiological practical class conducted in Brawijaya Medical faculty.

Objective: Therefore it is our aim to design a model which will make medical physiology a more attractive and applicative subject to the students. Integrated physiology means an application of the physiological condition which can be observed outside-class, e.g. in the hospital (in several departments) and or in the community, This model has been applied in our Medical Faculty since 1996 till last year. The nature of the integrated physiology has been designed in the fourth semester, after the students have learned the theoretical-physiology in the first 3 semesters. The aim of this study is to evaluate the implementation of integrated physiology in our medical school.

Method: This was an observational descriptive research using questionnaire distributed to the students and the lecturers every year after completing the subjects.

The response from the students about implementing integrated physiology was mostly positive (80%), especially for facing the clinical work later. However there were some negative responses (e.g. time consuming) from the lecturers (40%).

Conclusion: It is concluded that the students evaluation state that integrated physiology needs to be continued for their junior class. Eventhough the lecturers have some disagreement, they will continue to run the integrated physiology since the students enjoy doing it.

ABSTRACT NUMBER: OC-05

Problem Based Learning – The Medical Students' Perception

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Background: The Information Age is based on rapidly increasing and changing information and the goal of education in this new age is to prepare students to use their skills to solve real-world problems; yet, education has been criticised for failing the task. Problem Based Learning (PBL) is an approach that claims to reduce the theory practice gap. It was initially explored as a result of the observation that classroom learning in medical education did not always transfer to the clinical setting. There has been little research exploring the perceptions of the medical students. This study aimed to determine the perceptions of students in a PBL programme at the beginning. It took place at University Putra Malaysia.

Methods: In this qualitative research, semi-structured interviews were conducted with three students (high, medium and low participation in discussion) were selected by purposive sampling whilst undertaking a PBL program. Each interview lasted for 20 minutes and was audio recorded.

Data obtained were transcribed verbatim soon after each interview and after observation of same thing in interview the researcher stopped the data gathering. Interviews were transcribed and analysed thematically. Transcripts were coded and the content summarised.

Results: At the end of data analysis, six key themes emerged from this study: understanding of PBL, relationship to practice, anxiety and uncertainty, process, perceptions of the teachers' role and group issues.

Conclusion: Key themes in this study are that although PBL was perceived by students as a positive approach which enables them to develop skills which were relevant to practice and encourage an active approach to evidence, but students did not always feel well and they tend to be anxious particularly at the beginning of the programme. Some recommended the change in some aspects of PBL approach. It seems that a combined method might work better by enhancing the preparation of students for this approach.

ABSTRACT NUMBER : OC-06

Writing Discharge Summaries In Mother Tongue: Does It Improve Knowledge Of illness And Medication?

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Background: In-patients leaving Sri Lankan hospitals are issued a short hand-written discharge summary in English, commonly known as a 'diagnosis card' (DC). Writing a DC in English may discourage patients to gain more understanding of their illness and medication. The objective was to investigate if a DC in the patients' mother tongue would improve knowledge of illness and drug treatment.

Methods: The study was done at National Hospital Colombo, Sri Lanka. One hundred and thirty newly diagnosed patients with non-communicable diseases were randomized to two groups. The control group received the customary DC in English. The intervention group received the English DC, and one in patient's mother tongue (Sinhala or Tamil), hand-written by a researcher. Awareness of illness and prescribed drugs was assessed by a validated questionnaire with a score ranging from 0 to 100. This was administered by a blinded interviewer, at discharge and first follow-up visit.

Results: Mean age was 54.9 (+/-SD12.8) years, with 89 (68.5%) males. 52 (40.0%) patients were educated to Grade 6 – 11. The two groups had similar socio-demographic characteristics.

There was no difference in the knowledge of diagnosis and drugs between the two groups at discharge. The scores for knowledge of diagnosis increased in the intervention group from 22.17 (SD±36.69) at discharge to 79.87 (SD±37.06) at follow-up (p<0.001). The corresponding scores for knowledge of prescribed drugs were 8.21 (SD±15.38) to 54.08 (SD±34.71) respectively (p<0.001). The control group

showed no significant change: scores for knowledge of diagnosis 17.43 (SD±32.2) and 24.36 (SD±38.54), and for knowledge of prescribed drugs: 4.82 (SD±10.98) and 10.41 (SD±17.37). 51 (78.5%) in the intervention group acquired knowledge by reading DC in mother tongue.

Conclusion: Writing DCs in mother tongue improved patient's awareness of illness and medication. It is not known whether educational programmes of health professionals which are bi-lingual would be more effective than programmes run solely in English.

ABSTRACT NUMBER: OC-07

An Innovative Student Oriented Basic First Aid Training Programme In The IMU

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Background: Situations requiring first aid in everyday life is not uncommon and there is an expectation that medical students should be competent in this area. The IMU introduced a novel method of using trained senior medical students to train new entrants to the medical school on basic first aid. This study evaluates the effectiveness of this teaching model.

Methods: Thirty Semester 2 students were initially trained as trainers by clinicians on basic skills in first aid. Training of new entrants was done during the orientation week. The programme consisted of a plenary on principles of first aid followed by skill training sessions on assessment of victim, arrest of bleeding and bandaging, managing sprains and fractures and transportation of victims. A 50 item true false type MCQ paper was administered before and after the training to assess skill based knowledge on basic first aid procedures. Paired t-test was done to assess the significance of the difference of the pre and post training test scores. A questionnaire containing Likert-type questions regarding course organisation, content and confidence was used to evaluate the training programme.

Results: Out of 210 new entrants who participated in the training 78 said they had prior training in first aid before entering the university. However there was no statistically significant difference in pre training test scores between the trained and untrained students. A statistically significant improvement in the test scores was observed in both groups after the training.

As to the training 99% said they understood clearly what was taught, 93% felt using peers to train was effective, overall 97% said they acquired new skills in first aid procedures, 33% preferred more time allocation for the training. A marked improvement in the level of confidence in providing first aid was reported.

Conclusion: The results show that student to student teaching of basic first aid knowledge and skills is effective and preferred by students.

ABSTRACT NUMBER: OC-08

Reflections On An E-learning Tool For Acquiring Learning Domains In An Outcome-based Curriculum

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Background: E-learning is extremely effective as it enables access to a wide and diverse range of learning and communication facilities. Assigned Independent Reading (AIR), an innovative e-platform provided at the IMU is deemed a powerful tool as it is envisaged to enhance knowledge of subject matter, self-directed lifelong learning, ICT skills, and professional/personal development. This study aims to determine students' acquisition of the learning outcomes, specified under the eight IMU Domains, through AIR.

Methods: The study is based on the analysis of AIR submissions made by a particular intake of students during the five semesters of IMU Phase 1 Medical Programme. The total number of submissions made by students through eight AIR sessions was 1400. Pearson's correlation was used to determine the relationship between the AIR sessions and students' positive response to the IMU outcomes.

Results: The submission rate ranged from 89% – 99%. The majority of students perceived that they had acquired all the learning outcomes, except psychomotor skill, after completing the AIR sessions. Communication skill was acquired by the least number of students (77%) and self-directed, lifelong learning with information management by the most (91%). While some outcomes were acquired through one topic, some were acquired through seven. All AIR topics facilitated the majority of students to acquire more than one outcome.

The achievement of learning outcomes exhibited a linear upward trend from semesters 1 to 5, although not statistically significant.

Conclusion: This study has clearly established the role of AIR in enhancing learners' achievement of the IMU outcomes. It is evident that acquisition of outcomes is mainly dependent on the choice of topic although increasing maturity, self-reflection, analytical skills, and personal development of learners may contribute to some extent. We hope that this study will further motivate faculty and enhance their commitment to make AIR a more rewarding learning experience for students.

ABSTRACT NUMBER: OC-09

Educational Attitude: A Source Of Transforming Educational Programmes And Resources Into Knowledge And Skill

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Background: The educational mission of medical schools can only be energized if they select trainees who are enthusiastic and have appropriate attitude towards medical education. Attitude assessment is based mainly on continuous observation by tutor and by other indirect methods which makes it very subjective in nature. Lack of appropriate attitude in students causes failure in achieving knowledge and skill and results in wastage of resources and ineffectiveness of educational programmes.

Discussion: This paper discusses the nature of attitude and divides attitude in medical education into 'Educational' & 'Professional' attitude. Medical schools provide educational programmes and resources to students but it is the educational attitude of students which helps them in utilizing these programs and resources to achieve knowledge and skills. Similarly, professional attitude helps doctors to use their knowledge and skill for the benefit of their patients. Without proper professional attitude, knowledge and skill a health professional may not be beneficial to the patient. This paper recommends a set of objectives to describe the composition of educational attitude. These objectives may be used to construct a questionnaire to assess the appropriate attitude in medical students against pre-defined criteria.

Conclusion: Identification of right attitude is important in order to decide about the suitability of a student for medical education and training. Lack of proper attitude may result in poor performance during training i.e. poor knowledge and skills with a resultant non-competent and irresponsible final product unable to develop trust and to provide good care to patients. The purpose of this paper is to highlight the difference in 'educational' and 'professional' attitude and the importance of including 'educational attitude training' as a separate topic in undergraduate curriculum with clear description of objectives and assessment method.

ABSTRACT NUMBER: OC-10

An Evaluation Of Selectives For Year One Medical Students

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Background: Selectives are short courses which provide the students opportunity to widen their knowledge and skills both within and outside traditional areas of medical education. 6 choices of selectives were introduced at Monash University Sunway campus in 2007 and with the growing number of students the selectives increased to 12 choices in 2008. This study was carried out to find out the reasons for the students' selective choice, how the selective influence their medical career and which delivery methods were helpful in their learning experience.

Methods: Questionnaires were distributed to 95 first year medical students and analysed based on quantitative and qualitative techniques. Overall response rate was 94.7%.

Results: The selectives offered varied from field work, classroom oriented to laboratory-based teaching. The main reasons for students choice of a particular selective were to acquire new knowledge (22.2%), for fun and excitement (14.4%) and interest in subject (13.3%). The delivery methods found most useful to their learning experience were site visits (47.8%) and practicals (34.4%) whilst only 4.4% of the students found lectures as useful learning experience. A significant proportion of students (48.9%) indicated that the selectives created awareness, provided new knowledge and valuable exposure which will assist them in their future medical career. In addition, students indicated that the selectives enhanced their personal development (13.3%) and gave new insights to complementary and alternative medicine (11.1%).

Conclusion: In conclusion, the selectives provided valuable exposure to students, widen their knowledge and skills both within and outside traditional areas of medicine which would be helpful for their future career pathways. It is hoped that the feedback generated here would further improve the delivery and choices of selective offered in the coming years.

ABSTRACT NUMBER: OC-11

Comparison Of Different Styles Of Learning Environment

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Introduction: Faculty of Medicine, King Fahad Medical City adopt problem based learning curriculum (PBL) which was tailored to achieve a special vision and mission of the Ministry of health. The current study investigates the educational environment of learning which is crucial in success of the curriculum, the current study also compares the problem bases learning with traditional and outcome based learning environments

Material and Methods: One hundred and thirty seven males and females students (years, 1, 2 and 3) were included in the study. They filled in the DREEM inventory at the end of the second semester. The data were compared between the studied groups and also with traditional and outcome based learning curriculum. Nonparametric statistical tests were used to compare the different studied groups and the different learning environments.

Results: There were no significant differences in the scores of DREEM questionnaire between the studied groups (years, 1, 2 and 3); however, there were significant differences between the different styles of learning environments. The scores of DREEM for our school which adopt the PBL were significantly higher than the traditional learning system in Saudi Arabia but were significantly lower than Medical School of Dundee University which adopts the outcome based learning environment.

Conclusion: Problem based learning environment is more healthy in studying medicine than the traditional environment which is adopted by most of the medical schools, however it is scored lesser than the outcome based learning in all of the different DREEM's domains.

ABSTRACT NUMBER: OC-12

A Survey On Antibiotic Prescribing Patterns By Dental Practitioners In Klang Valley Region In Malaysia

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There is a general concern about the overuse of antibiotics and the emergence of resistant bacterial strains. In most dental clinics, dental infections are treated empirically with broad spectrum antibiotics without recourse to determine the causative microorganism and the most appropriate regimen required.

In addition there are evidences of inappropriate prescriptions of prophylactic antibiotics both for surgical procedures and for patients at risk from endocarditis. Indiscriminate use of antibiotics can lead to the development of many strains of oral bacteria resistant to commonly used and effective antimicrobial agents required for life-threatening treatment situations.

The aim of this study is to investigate the therapeutic and prophylactic prescribing patterns of antibiotics by dental practitioners; in what clinical situation they will be prescribed. Furthermore, to investigate prescribing habits regarding some cardiac condition and dental procedure in patients predispose to infective endocarditis.

This study is based on a survey by a questionnaire which has been designed to investigate the antibiotic prescribing patterns by dental practitioners in Klang valley region. This paper presents the outcomes have been evaluated by pilot study (Validity and Reliability).The questionnaire handed over to 50 dental practitioners who are working in specialist dental clinics in Petaling Jaya and Bangsar district.

The prescribing habits of 25 respondents clarified that there is a tendency toward over-prescription. Furthermore, there is confusion as to which patient groups and cardiac conditions required prophylaxis and for which particular dental procedures.

The results obtained from preliminary stage concluded that the prescribing of antibiotics in dental practice varies widely and is suboptimal. In addition; there is a clear need for the development of prescribing guidelines and educational initiatives to encourage the rational and appropriate use of the antibiotics.

ABSTRACT NUMBER: OC-13

Bell Bottomed Jeans, Self Directed Learning And Other Historical Oddities

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Background: Innovation in teaching and learning wanes and waxes like the tide. Absolutes become maybes, fading unceremoniously out of style only to be brought back to life at a latter time and presented as novelty.

Objective: The objective of creating an undergraduate teaching and learning environment in which life long learners and critical thinkers will evolve is admirable. The expectation that providing undergraduate learners with a few basic tools which they will pick up and readily utilize with minimal direction in order to obtain an acceptable level of capability is both problematic and unrealistic.

Method: This paper summarizes a study in which two practical groups engaged in a physical examination course were exposed to opposing T and L styles across a two semester period; alternating at the mid point. The first style imbued the philosophy of exploration, self directed learning and minimal supervisor input. The second might perhaps somewhat crudely be referred to as imbuing the techniques of rote learning, spoon feeding and repetition.

Results: Students were surveyed on their perceptions of the efficacy and worth of both styles and grades stemming from their academic performance following exposure to each style were compared. Results indicate that students both obtain better scores when taught with and prefer to be exposed to a rote learning and repetitive approach to teaching and learning.

Conclusion: Whilst the long term outcomes of exposing students to self directed learning are equivocal the conclusion that this pedagogy might not be best applied in a blanket manner across the curriculum is not difficult to reach. Like bell bottomed jeans, SDL must be placed towards the back of the wardrobe; for the moment.

ABSTRACT NUMBER: OC-14

Use Of ICT In Students-Supervisors Communication: A Case Study At USM

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Background: Digital literacy is the ability to use digital technology, communication tools or networks to locate, evaluate, use and create information. It covers a range skills

and knowledge that ensure users get the most out of their engagement with technology. With the digital literacy skills, one will be able to determine the extent of digital information needed, access the needed digital information effectively and efficiently, evaluate digital information sources and services critically, and incorporate selected digital information into one's knowledge base. This study examined the post digital literacy of postgraduate students and supervisors at the University of Science Malaysia, Penang.

Methods: This is cross sectional survey using online questionnaire. Focus group discussions were used at the questionnaire development stage to elicit information on the various aspects of ICT in communication between supervisors and post graduate students. Users' perceptions on the usefulness of ICT in student-supervisors communication were categorized into the following broad categories: improves communication; strengthen student-supervisor relationship; add value to face to face interaction; and optimize the use of available ICT infrastructure.

Results: A total of 81 students and 70 supervisors participated in the study. The results show that both students and supervisors were intermediate or advance users as far as the basic Microsoft office programs are concern but not many of them have good knowledge on other programs such as statistical packages and web designing. As for the open source application, significantly higher percentage of supervisors (76%) use Moodle compared to students (42%) but the percentage of student user were significantly higher for Wikis, Facebook, Blogs, and Friendster. For the perception of the usefulness of ICT, the supervisors rating ranges from 4.32 to 5.44 on a scale of 1 to 7. The highest rating was for "ICT improves communication" while the lowest was "ICT add value to face-to-face interaction", whilst students' ratings ranges from 4.84 (Add value to face to face interaction) to 5.55 (Improves communication). The t-test analysis shows that supervisors' and students' ratings on the usefulness of ICT significantly differs only for "ICT strengthen student-supervisor relationship" ($p = 0.021$), students' rating was higher than the supervisors'.

Conclusion: Supervisors and students have favorable perceptions on the use of ICT as student-supervisor communication tool, this is evident from the fairly high mean scores on all the four aspects ICT usefulness in student-supervisor communication. Comparing students' and supervisors ratings show that the two categories of respondents do not differ significantly in their perception except for the aspect 'communications with ICT strengthen student-supervisor relationship' where students subscribes to a more positive perception. Even though ICT is seen as an effective communication tool, both supervisors and students felt that it should only complement face to face meeting not completely replacing them.

ABSTRACT NUMBER: OC-15

Developing And Validating An Instrument To Assess The E-Learning Environment In USM

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Background: As Knowledge, Communication and Technology (KCT) plays crucial role in the restructuring of the educational system in this new millennium, e-Learning is seen as an effective means to stimulate this process, especially on the teaching and learning aspect. The introduction of e-Learning has become an important factor in reshaping the educational environment, particularly in the Higher Education System (De Boer et al, 2002). In order for e-learning systems to take advantage of these technologies so as to be successful, effective and of a quality comparable with the well received traditional learning systems, the e-learning systems must be designed and constructed with care, using a thoroughly scrutinized approach which embraces well-designed procedures and techniques (Colette, 2001). This study aims to develop a valid instrument to gauge students' perception on the e-learning environment in USM.

Methods: This study employs the focus group interviews and questionnaire survey as the main tools for data collection. Focus group interviews were conducted to elicit information on the various aspects of e-learning. The information derived from the interviews was utilized to construct the instrument that was later used to collect data to establish the reliability and validity.

Results: The questionnaire was answered by a total of 226 randomly selected students from USM medical school. Factor analysis, both exploratory and confirmatory, was performed on the data and the result indicate that in assessing the E-Learning environment there are six distinct factors; technology, course content, teaching and learning material, teaching and learning environment, learning strategies, and support. The instrument resembles good distribution property, both for the univariate and multivariate normality. The psychometric properties of the instruments are as follows; GFI = 0.88, AGF = 0.87, RMSEA = 0.061, NFI = 0.88, CFI = 0.89, PNFI = 0.77, and PGFI = 0.84.

Conclusion: The instrument to assess the E-Learning environment consists of six dimensions: technology, learning strategies, course content, learning material, teaching and learning environment, and support. This is a unique instrument for Malaysian setting since the items representing each dimension were generated using focus group interviews. The instrument development has taken stringent steps to refine the instrument while rigorous statistical analyses were carried out to determine its validity and reliability. The locally developed instrument to assess the e-learning environment in Malaysian institutions of higher learning has strong validity and reliability indices.

ABSTRACT NUMBER: OC-16

A Review Of Clinical Education, The Implementation Of A Qualitative Measure

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Background: Clinical education in the Division of Chiropractic at RMIT University currently incorporates a work integrated learning model in order to achieve graduate capabilities. This transpires largely at University operated teaching clinics. At this busy nexus interaction between and amongst staff and students may be punctuated due to the high traffic nature of the environment, potentially compromising learning outcomes. In order to facilitate clinician/learner interaction, the introduction of a qualitative reflective measure, Pebble Pad, a personal learning system developed in the United Kingdom has been proposed. The Pebble Pad system is purported to support personal learning by providing a common e space for conversation, communication and collaboration. Information can be shared with trusted individuals, published to group pages or made public to the world-wide web¹. This study will investigate the efficacy of Pebble Pad to facilitate communication and enhance clinical skills within the chiropractic work integrated learning environment.

Methods: The use of PebblePad within the work integrated learning environment will be trialled with a randomly selected group of students and their supervisor against a control group not utilizing the technology for a period of 1 year. Students and supervisors utilizing PebblePad will be required to attend a training session in its use and students will be required to establish a profile and periodically contribute information reflecting their progress during their clinical year into the system. Outcomes measures assessing staff and learner satisfaction with the system across a comprehensive set of capabilities will be utilized.

See table below

	Diagnostic skills	Therapeutic skills	Research skills	Communication skills
My capability in this area is				
1. Poor				
2. Good				
3. Very good				
4. Excellent				

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ABSTRACT NUMBER:OC-17

Effectiveness Of Problem-Based Learning (PBL) In A Hybrid Curriculum

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Background: The approach towards learning that students adopt is an important factor determining both the quantity and quality of learning. It is generally accepted that the chances of retaining the learned material will be better if learning is to occur around a realistic problem. To help medical students gain a better and deeper understanding of the mechanisms underlying infectious diseases the curriculum development committee at Melaka Manipal Medical College (MMMC) incorporated PBL into the microbiology curriculum. This study was designed to record the perceptions of students and faculty towards PBL and to analyze the impact of PBL on their academic performance.

Methods: The student and faculty perceptions on PBL were collected using questionnaires and focus group discussions. The impact of PBL on academic performance was assessed by comparing the examination scores obtained in the PBL topics with the non PBL topics.

Results: Students opined that apart from helping them acquire substantive knowledge in microbiology, PBL sessions enhanced their analytic, collaborative, and communication skills. Faculty rated the process to be highly effective in stimulating student interest and long term retention of microbiology knowledge. The mean scores obtained by the students in PBL topics was found to be significantly higher when compared to the scores obtained in lecture topics (P value = <0.001).

Conclusion: PBL used as an adjunct to other teaching learning strategies, promoted collaborative learning, analytical skills and communication skills. The lessons learnt will help us plan and implement strategies that provide learner more self direction, corresponding with an inquiry driven, student centered approach to instruction. Continued follow-up of this cohort could provide details to inform further curriculum development

ABSTRACT NUMBER: OC-18

Problem-Based Learning (PBL) As A Learning Tool In The International Medical University Pharmacy Curriculum

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Background: Problem based learning (PBL) is one of the learning tools used to achieve the educational objectives in the IMU Bachelor of Pharmacy programme. These objectives include acquisition, application and integration of knowledge, developing problem solving, communication, team-working and collaboration skills, self-directed and lifelong learning attitudes and the ability to distinguish evidence-based information.

Method: The PBL activity conducted in small groups (10 to 12 students) in 2 sessions of 1 1/2 hours each with a facilitator, who monitors both sessions and assesses students' performance, based on identified objectives. In the first session, students would be presented a "trigger", often a case scenario. A leader and scribe (by rotation) would be selected by the group. Discussion of the trigger, identification of learning issues would follow. They would then organize to work on these issues during the week via informal meetings, jointly preparing an oral presentation, aided with power point slides, posters or any other audio-visual aids. At the second PBL session in the following week, any member of the team could be invited by the facilitator to present any one of the learning issues. Other members of the group contribute to active discussion. This study examined the perceptions of 3 cohorts of pharmacy students in semester two (n = 106), four (n = 73) and six (n = 54), who have been exposed to PBL for 1 to 5 semesters via a pre-tested structured questionnaire based on a 5 point Likert scale.

Result: The data (analysed using chi square) showed no difference (P>0.05) in the response to most of the questions between the students in the 3 cohorts. Most of the respondents found PBL to be a useful experience (72.1% to 90.4%), agreeing that it should be made a necessary form of teaching (61.6 to 72.5%). They agreed that PBL taught them how to solve problems (42.3 to 56.5%) while 8.4 to 24.6% disagreeing with the statement. On this aspect, the more junior students agreed more with the statement. All 3 cohorts agreed that they learned to distinguish evidence-based information from unsubstantiated information, (45.1 to 75.9%), with the more senior students agreeing more with the statement. Those who disagreed varied between 9.2 to 19.1%. Students agreed that PBL allowed them to learn "in-depth" knowledge about a topic (56.1 to 82.0%). These pharmacy students also agreed that PBL improved their English communication, presentation, integrative and applied skills, allowed them to build team spirit, learnt clinical knowledge, taught them discipline, become aware of doing their work on time, allowed them to explore by themselves, helped develop life-long learning skills and prepare them for working life.

Conclusion: Pharmacy students from semester 2 to 5 agreed that PBL was a good learning tool to achieve the educational objectives in the IMU Pharmacy programme.

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Students' Perception On Various Components Of Problem Based Learning In Pharmacology In Medical School

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Background: Problem based learning (PBL) is one of the teaching methods employed in medical schools in various capacities. The implementation of PBL has advantages and disadvantages. It enables the students to solve a given clinical problem and to build strategic approach in learning. The objective of the study is to get our students' perception about the PBL among our students. The research question is to find out whether problem based learning is an effective learning method in pharmacology compared to didactic lectures.

Methodology: The study was done in 130 students of second year MBBS, Melaka Manipal Medical college, India. This is a questionnaire study in which students' perception regarding different components of problem based learning in pharmacology were elicited with the help of structured questions. A self structured questionnaire was given to students which consist of students' perception regarding problem, brainstorming session, presentation session, moderator, evaluation, PBL as a learning module. Descriptive statistics was used to analyse the results.

Results: 54% of students felt the problem was appropriate and 30% felt it was clinically oriented. 38% & 41% students felt the brainstorming sessions was very useful and difficult respectively. 47% students opined that they had equal chance to participate in presentation, 32% of students felt they can clear the doubts during the presentation. 89% students felt the role of moderator was good. 51% of students felt PBL was a good teaching module. 14% of students opined that evaluation was biased.

Conclusion: Eventhough a few students felt the evaluation was biased, majority of the students felt , PBL is an effective learning method.

Methods: This questionnaire based study was conducted on students, faculty members and college administrators to find out the level of satisfaction, positive and negative aspects of the existing system, their awareness about the changing trends, and their opinion about the need for a change in Pakistani medical schools / colleges. Specifically Designed questionnaires were distributed among the study groups and the responses were analyzed in terms of simple percentages.

Results: Majority of the students, faculty members and administrators are aware of the shortcomings of the existing system of medical education. They are in favor of the more interactive, small group problem based integrated teaching and learning system. Being accustomed to the traditional system, fear of change, lack of resources and the fact that most faculty are busy clinicians and don't have enough time to bring the change are the main obstacles In bringing about the change.

Conclusion: Change in the medical teaching and learning methodology is mandatory but will take some time to materialize.

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Medical Education – The Change Is Mandatory But The Task Is Time Consuming

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Background: The teaching and learning in medical schools / colleges of Pakistan follows the decades old methodology. This consists of monologue class room teaching to large groups of students. While the teaching methodology is changing worldwide, the change is taking time in developing countries. This study attempts to identify the reasons for such delays and solutions for the problem.