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Developing a Faculty Development Programme for Improving Bedside Teaching

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Key words: development, bedside-teaching, clinical, teachers

Bedside teaching (BST) is a fundamental component of medical training. BST provides a good opportunity to observe the students' performance and the holistic patient care. Unstructured BST and inappropriate comments may discourage students. Medical Faculty of Maranatha Christian University was founded in 1965. Many of our clinical teachers had no formal training in clinical teaching, so they have variable abilities and approaches to teaching. To improve and standardize clinical teaching skills, especially BST, we conducted a Faculty Development Programme in September – December 2008. 46 clinical teachers participated. The programme had four modules: clinical teaching, enhancement of BST with five steps and microskills, feedback in clinical training and performance-based assessment. The training method is based on focused group discussion, brainstorming, case study and role-playing. From the focused group discussion, participants identified obstacles of BST and need for changes in traditional BST methods. Questionnaires to evaluate clinical teacher's perception about BST were administered to all of our clinicians ($n = 60$). As compared to clinical teachers who had not attended the workshop (score 73.34 ± 15.1), those who had attended the workshop had better perception of BST (score 82.6 ± 9.4, $P = 0.035$). We conclude that it is necessary to introduce faculty development programme to improve bedside-teaching in our institute.

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Editorial

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APMEC: a global conference centred in Asia

Zubair Amin, Dujeepa D. Samarasekera, Chong Yap Seng, Khoo Hoon Eng, Matthew Gwee

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Daftar Isi

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1

Developing Clinical Competency in Crisis Event Management – an Integrated Simulation Problem-Based Learning Activity

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Key words: simulation, problem-based learning, clinical competency, crisis event, nursing education

The aim of the study was to evaluate the use of a simulation learning activity in problem-based learning (PBL) in teaching nursing students on how to identify and manage a crisis event. A quasi-experimental study was conducted. The nursing students in a Bachelor of Science (Nursing) program were assigned to simulation with problem-based discussion (SPBD) or problem-based discussion (PBD) group for their PBL scenario on respiratory and cardiac cases. Following the completion of each of the PBL case scenarios, the nursing students were invited to sit for an individual post-test involving an assessment and management of a simulated patient facing a crisis event. A total of thirty nursing students participated in the first post-test related to respiratory scenario and thirty-three participated in the second test related to cardiac scenario. They were scored using a validated checklist. Mean post-tests scores for students completed the SPBD were significantly higher than those who completed the PBD for both the first post-test (SPBD 20.08, PBD 18.19) and second post-test (SPBD 27.56, PBD 23.07). The study supported the use of simulation with problem-based discussion in providing a more effective way of learning as compared with the use of problem-based discussion alone.

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Enhancement of Student Learning in PBL by Video Triggers

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Key words: basic sciences, professional skills

The use of video triggers in problem-based learning at the LKS Faculty of Medicine of The University of Hong Kong has been shown in a previous study to be well received by both students and facilitators. This study examined the effects of video triggers on the learning of the four themes of the medical curriculum: human biology in health and disease, professional skills, population health, and medical ethics. All second-year medical students and their PBL facilitators who had completed a video-triggered PBL session were approached to take part in the study in 2007, in which 129 students and 13 tutors responded. Their responses were measured by a structured questionnaire using a modified Likert scale. The majority (72%) of students thought the use of video triggers could enhance their learning of population health, while only 39% of the facilitators did. However, most students and facilitators agreed that video triggers could enhance their learning of the other three themes, especially that of professional skills. The highest percentage of students and facilitators considered their learning of professional skills to be enhanced by the use of video triggers. This was probably because of the 'role model' effect. The learning of human biology in health and disease, which consists of many basic sciences in the second-year medical curriculum, was also considered to be enhanced. The use of video triggers may have enhanced student's interest in the basic sciences, by showing them the clinical relevance of basic sciences in real life.

3

Application of Educational Theory Regarding Teaching for Skill Transference for Chest Radiograph Interpretation in Undergraduate Education and Training

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Key words: educational theory, deliberate practice, chest radiograph, undergraduate education, postgraduate education

To illustrate how educational theory on teaching for transference can be applied to teaching chest radiograph interpretation in medical education in a sample group of year 3 undergraduate students, and how these lessons can potentially be applied to teaching image interpretation to medical undergraduates and postgraduates. This poster will present key research regarding transference, show its relevance to teaching chest radiograph interpretation with a sample group of 19 year 3 undergraduate medical students, as well as present data to show its effectiveness and efficiency in undergraduate radiology education. In particular, a combination of (1) presenting paired examples, asking students to work out underlying principle, then presenting principle, (2) mixed practice – i.e. presenting two contrasting cases, asking students to work out differences, then presenting principle, and (3) distributed practice will be shown to be the best methods for encouraging transference of skills. 18/19 of the students preferred this form of teaching to a standard lecture. In addition, all the students 19/19 reported that the combination of paired examples, and mixed practice were particularly useful in allowing detection of abnormalities, and provided insight into the difference between normal and abnormal chest radiographs, and between different abnormal chest radiographs. Application of educational theory regarding teaching for skill transference can significantly improve

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radiology training with a sample of undergraduate medical students. These ideas have a sound basis in educational research and are potentially generalizable for teaching image interpretation to not only undergraduates but postgraduates.

4

Do the Clickers Click? Audience Response System as a Predictor of Students' Performance in Medical Curriculum

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Key words: audience response system, student evaluation, formative feedback, medical education, anatomical sciences
In 2006 Mayo Medical School implemented a new outcomes-based curriculum that emphasized technological innovation and new educational approaches. The use of audience response system (ARS) was initiated in year I of the medical curriculum. During each didactic session, students answered clinically oriented multiple-choice questions using the ARS. Over a three-year period, each student's performance was recorded and cumulative ARS score was compared with final examination performance at the end of each course. A correlation coefficient between ARS and final course performances was calculated to quantify the strength of using ARS as a predictor in student performance. Results of a questionnaire to evaluate the students' perception of ARS difficulty, usefulness, effect on their own performance, and preferred use of the ARS were also analyzed. There was a strong positive correlation between ARS and final examination scores in all didactic blocks. R values for the ARS scores and NBME subject Anatomy examination final was $R = 0.9556$; and for the Anatomy/Radiology written examination $R = 0.9882$. Students saw ARS as useful tool for providing feedback on their performance. Questionnaire results also showed that students preferred more frequent ARS quizzes with fewer questions. In conclusion, using ARS as an assessment tool is beneficial for students and faculty. ARS provides immediate feedback to students and is a good predictor of final course performance. It also allows faculty to identify students early in the course who need help with their learning process.

5

A Longitudinal Study of Graduate Medical Students in Australia: Correlates of Anxiety, Depression, Resilience, and Quality of Life with Demographic and other Key Variables

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Key words: medical students, anxiety depression, resilience, quality of life
To examine factors associated with anxiety and depression among graduate entry medical students. These factors included demographics, resilience, quality of life and other key variables such as proposed career plans. The baseline survey of a longitudinal cohort of 178 first year graduate medical students enrolled in the graduate medical program at the School of Medicine Sydney, University of Notre Dame Australia. The main outcome measures were anxiety and depression assessed using the Hospital Anxiety and Depression Scale. Using standard cut-offs, 47% had high anxiety scores, and 8% high depression scores. Sex, resilience, quality of life and intended work location significantly correlated with anxiety. Sex, resilience, quality of life and intended work location were also significantly associated with depression. Following multiple regression analyses, sex, resilience, and quality of life remained significantly associated with anxiety. Male students scored significantly lower than female students for anxiety, after adjusting for their resilience and quality of life scores. Resilience, quality of life and intention to work in a capital city or major urban centre were significant factors associated with depression. After adjusting for resilience and quality of life, students intending to work in capital cities or large urban centres scored significantly higher on the depression scale. First year graduate medical students had high scores for anxiety. Female students scored higher on anxiety scales than their male counterparts. Depression was associated with the intended work location.

6

The Hybrid Combination of High-Fidelity Simulation and Standardised Patient (SPS) in Advanced Cardiac Life Support Task Training

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Key words: hybrid simulation, emergency care, student education, student assessment, debrief
The teaching of Advanced Cardiac Life Support (ACLS) is a core competency for all health care providers. This work was designed to demonstrate an effective method of using standardized patients (SPs) with high-fidelity simulators to enhance learning retention. We identified core competencies including CPR, drug therapy, teamwork, communication, and leadership skills. Three cases were developed, first was traditional: including review scenarios and rhythm strips, then allow discussion of answers with a review. The second was completed on a high-fidelity simulator; with a scenario discussion as students worked in teams. The third was a hybrid case with an SP and high-fidelity simulator together. 120 third year medical students participated. The students were divided into groups of 40 and assigned to either case one, two or three. Of 120 third year students who participated in this training, 112 passed the criteria for certification in ACLS, 40 in Case Three, 40 in Case Two and 28 students in Case One. Six months follow-up survey found group three had 90% retention, group two 65% retention, and in group one, less than 25% retention of ACLS guidelines. Each student returned to the Center for further training. Opportunities to participate in this learning environment abound, skillful combination of an experienced SP with high-fidelity simulation leads to greater retention of the learned skill. The students reported this experience felt 'real' and reported more confidence. Third year medical students are automatically retrained during their fourth year.

7

Medical Students' Attitudes Towards the Underserved: Comparison of a Sample from Australia and the USA

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Key words: medical students, attitudes, medically underserved, international comparison

There are no data on international comparisons of medical students' attitudes towards the medically underserved. We compared data from two longitudinal studies incorporating the previously validated Medical Student Attitude towards the Underserved questionnaire (MATSU – Wake Forest University School of Medicine). Ninety-four medical student results from UNDA were compared with 121 students from Wake Forest University sampled in their first year of their medical degree. Comparisons were conducted using MANOV with adjustment for students' characteristics for multiple outcome measures. When Australian males were compared to Australian females, there were no differences between the two groups. However, there was a difference between US male attitudes and US female attitudes so a sub-group analysis was undertaken. The higher the score on MATSU indicates a greater concern for the well being of the medically underserved. The results found Australian male students scored higher on the total scale ($F (15,86) - 6.86$, $P < 0.0001$) and all sub-scales apart from professional responsibility (where there was no difference) than American male students. Australian female students scored higher on the overall total scale than US students ($F (16,90) = 4.23$, $P < 0.0001$) and the sub-scale of access to medical care being influenced by income and rural/urban status than American female students. The conclusion drawn from this comparison is that medical students from the University of Note Dame Australia display differences in attitudes to the medically underserved compared to medical students from Wake Forest University, USA.

8
Medical Students' Perceptions of their Learning Environments: Comparisons between Courses and Across Countries

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Key word: learning environment

Duke-NUS Graduate Medical School (Duke-NUS) uses Team-Based Learning as the primary teaching strategy in basic science curriculum. Purpose of this study was to compare student perceptions of the learning environment across 1st year as well as with five medical schools as reported in literature. In 2007–2008, Dundee Ready Education Environment Measure (DREEM) was administered to our 1st year students ($n - 26$) at the end of each of the 1st year courses ($n - 4$). The survey provides an overall score, four subscales, and 48 individual items rated on a 1–5 Likert-type scale. The four courses were compared to each other and the last administration was compared to data reported in literature. Overall scores suggested more positive than negative responses. One course was significantly lower than the first course, otherwise no differences. On the whole, Duke-NUS was comparable to three of the five other schools, significantly higher than osteopathic school and all were significantly lower than MBBS program in the UK that just implemented a PBL program. Subscale analyses indicated perception of learning and educational environment were most positive in both our school as well as the PBL school. Ability to have social life was lacking at Duke-NUS. The DREEM comparison within school helped us identify course specific issues to work on. The normed comparisons confirmed similar challenges by all medical schools, reinforced the positive reports of small group learning, and highlighted our need to watch for burnout.

9
Simulation is a Useful Method in Teaching Undergraduates Acute Paediatric Medicine

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Key words: simulation, acute paediatrics

To evaluate the impact of the use of patient simulators in teaching acute paediatric medicine to undergraduate medical students. This was a prospective, observational study done in the National University Hospital. The subjects were fourth year medical students who participated in a teaching session involving three stations: an intubation task-trainer, a cardiac arrhythmia scenario and a septic shock scenario. An anonymous pre and post session questionnaire and a feedback form were administered. All responses were rated on a Likert scale of 1–5. Informed consent was obtained and participation was voluntary. Based on the pre and post session assessment, the students ($n = 26$) were more confident with managing acutely ill children after the session (Table 1). The effect on teamwork and communication skills was not significant. The mean satisfaction score for all three stations was ≥ 4. All students felt that this training better prepared them for their future job and felt it should be made part of the undergraduate curriculum. Simulation-based teaching is associated with increased student confidence in managing acute problems in paediatrics as well as a high degree of student satisfaction. It should be used as a tool to teach acute medicine to undergraduates in paediatrics.

Skills	Pre-score (mean)	Post score (mean)	P value
Bag and mask ventilation	2.32	3.68	< 0.01
Intubation	1.76	3.32	< 0.01
Managing arrhythmias	1.64	2.88	< 0.01
Defibrillation	1.92	2.84	< 0.01
Managing shock	1.92	2.96	< 0.01
Identifying a sick child	2.88	3.64	< 0.01
Identifying cause of shock	2.32	3.24	< 0.01

10
The Comparison of Epistemological Beliefs, Self-Regulated Learning, and Learning Style Between Students of the Medical College and the Graduate Medical School

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Key words: students, epistemological beliefs, self-regulated learning, learning style

Post-baccalaureate basic medical education system has been established since 2003 in South Korea to produce doctors with improved behavioral and professional competencies. By comparing the epistemological beliefs, self-regulated learning, and learning style between students of the Medical College (MC) and the Graduate Medical School (GMS), we investigated the characteristics of these students. Epistemological Beliefs (EB) are beliefs held by individuals about knowledge and learning, and EB questionnaire is composed of 61 statements on knowledge and knowledge acquisition. Self-Regulated Learning (SRL) is the ability and willingness to effectively use and monitor cognitive strategies. SRL questionnaire is composed of 90 statements about self efficacy (25), internal value (8), anxiety (25), cognitive strategy (25), and self-regulation (11). 665 students of two medical schools were invited to complete questionnaires on EB, SRL and Learning Style (LS) between May 1st and May 31st, 2008. 335 GMS students and 261 MC students (response rate: 89.5%) completed the questionnaire. For the EB scale, the scores of 'source of knowledge' 'rigid learning' 'ability to learn' and 'speed of knowledge acquisition' of GMS students were significantly higher than those of MC students. For the SRL scale, the score of 'self efficacy', 'internal value', 'anxiety', 'cognitive strategy', and 'self-regulation' of GMS students were significantly higher than those of MC students. This study showed that GMS students have different characteristics from MC students. We can use this information about students not only in developing curriculum and teaching strategies, but also in providing support to them.

11

Objective Structured Brainstorming Questions (OSBSQ) in PBL Tutorial Sessions

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Key words: structured questions, brainstorming, problem-based learning, tutor

The objective of this paper is to introduce a standard process for tutors to follow in brainstorming sessions to ensure that all students in different groups have been through the same process exploring their pre-existing knowledge. This is to ensure that the basic underlying scientific principles and mechanisms are well identified and acknowledged. Each learning objective is facilitated by a set of objectively structured questions aimed directly at exploring the student's existing knowledge and what they need to learn. This tutorial process of generating questions should be managed and standardized to ensure that tutors with different background deliver equally the process to students in different groups. A group of 48 students was distributed in six small groups with no tutorial guidance on the first problem regarding pregnancy and another batch of 72 students was allocated to nine small groups with tutors instructed to apply objectively structured brain storming questions. Positive satisfaction, significant yield of new knowledge and a clear insight into the mechanisms which enabled them to better understand and achieve the stated learning objectives were acknowledged by students applying the OSBSQ in contrast to poor satisfaction and achievements by the other group. Whenever feasible correcting measures need to be introduced, such a move should be encouraged to reach our final goal of a valid and accredited process. The proposed OSBSQ can help to guide brainstorming sessions in a standardized way.

12

Short Case Test Items Developed by Students for Evaluating Undergraduate Course of Plastic Surgery: 6-Year Experience

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Key words: short case test items, learning promotion, item pool, student, development

The objective of the study is to report a 6-year experience of short case test items (SCTI) development by students to evaluate the clinical competency during the 2 weeks of plastic surgery clerkship. 25–30 junior students were divided into five groups. Each student was allocated one or two subjects which were chosen according to the priority for requirement in the field of primary care. Raw items were presented by the students with the professor and residents. This was then revised with open discussion. The revised items were stored and were used for the evaluations of the following year. Before the examination, titles of items were informed to the examinee 3 weeks before the examination. The test results were analyzed. The number of developed items were 176 (44 basic science, 35 congenital anomaly, 21 traumas, 31 tumours, 17 hand and extremity, 28 aesthetics). Yearly 28, 48, 30, 23, 34, and 29 topics were developed. Among them 20, 23, 23, 18, 15, and 19 topics were selected. About 60 students were examined annually. The mean score was 72.7, 57.1, 64.3, 63.8, 61.5 and 49.4 respectively. About 70% of the students prepared the test in small group activity. The mean preparation time of the students for the examination was 604 minutes. Our experience suggests SCTI is feasible for the evaluation of student learning in Plastic Surgery with the following assumptions: (1) through the development of SCTI, we could have item pool, and (2) by informing the titles of items to the examinee before the examination, we emphasized the learning promotion effect of evaluation on focused areas of learning.

13

Item Analysis of Medical Graduation Examination in A or K Type

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Key words: education, item, analysis, assessment, medical

Our objectives were to assess the validity of A-type question over K-type question in terms of difficulty, discrimination and reliability. We analyzed 528 items used in summative assessments of senior grade medical students. All statistical analysis was performed using SPSS for Windows (version 14.0; SPSS, Chicago, IL, USA). The total number of A-type and K-type was 483, 45 respectively. Mean discrimination was significantly higher in A-type questions than in K-type questions (0.12 versus 0.11; $P = 0.016$). Mean correlation was also better in A-type questions (0.20 versus 0.17; $P = 0.022$). Item type A got higher discrimination and correlation value than item type K in this study. However, we still have problems with item discrimination and correlation value because, based on Ebel's item discrimination assessment criteria, their absolute values are not high enough. We believe that for studies in the future the items of type A and type K should be analyzed using test scores that are discriminative enough in order to acquire more reliable and meaningful results.No difference was seen in difficulty and

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reliability. A-type question is more reliable and accurate than K-type when used as assessment questions in medical education.

14

The Impact of Introducing Histology Teaching Based On a 'Virtual Microscope' on Undergraduate Engagement and Achievement

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Key words: microscopy, histology, e-learning, e-assessment
Since 2007–2008, much of our histology practical teaching for around 900 undergraduates each year has been delivered using a 'virtual microscope' (VM) and an archive of 300 digital images. The images are hosted within a content management system, 'Digital Slide Box' (Slidepath, Dublin), organised by student cohort (medical, dental or veterinary). Users navigate around the images at variable magnifications (×1–×40); images/structures can also be annotated and measured. The VM is also available off-campus for self-directed learning and revision. We have also developed VM-based, on-line quizzes that test tissue recognition and structure-function relationships. Some quiz questions provide formative feedback; others form the basis of examinations that were previously delivered via light microscopy (LM). The VM receives excellent student feedback. In 2007–2008, it was rated as Excellent or Good as both a learning and revision tool by over 90% of 106 veterinary students; 78% of 80 dental students rated it a more effective learning tool than LM. Students value its 'user friendliness', consistently high image quality, off-site access and the availability of formative quizzes. The VM has been associated with improved examination performance. The average mark in veterinary histology examinations has increased by around 10%, compared with previous LM-based examinations, despite VM-based exams testing both a wider range of students' tissue recognition skills and more understanding of structure-function relations, in the same length of examination. We conclude that the VM has increased students' enjoyment of, engagement with, and performance in histology.

15

Factors Influencing the Commencement of Postgraduate Training Among Medical Graduates in Sri Lanka – a Retrospective Analytical Study

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Key words: selection, postgraduate, influence
Each year more than 2000 applicants sit for the selection exams at the PGIM and few succeed in undergoing PG-training. What made them succeed remains unknown. A randomly selected sample ($n = 150$) of applicants including all four major streams was selected. Applicant peak enrollment was at 32 years and the age had a significant correlation with success ($P = 0.01$). The Male-female ratio in taking up PG-training is 2:1 whereas married/unmarried ratio was 3:1. Among applicants, 27% were from Colombo University whereas five other faculties shared the rest (73%), with Jaffna/Sri Jayawardenepura Universities being the lowest at 11%. Colombo showed the highest pass-rate at 28% while Peradeniya had 26%. The influence of the local universities to the pass-rate was significant($P = 0.006$). Among applicants 3% were holding 2nd upper divisions and 17% 2nd lowers. 47% of 2nd Upper class applicants and 33% of 2nd Lower class applicants

succeeded and only 16% of general pass applicants were successful. The grade and the outcome at the selection exam was significant at $P < 0.05$. The field selection was very much based on internship and all major streams had average 42% candidates with exposure in relevant fields. The positive influencers in the success of selection were age, final year grade and the Medical College. Male gender, younger age, internship exposure was influencing the application for PG-training.

16

Are Standardized Patients as Reliable as Faculty Examiners During a History Taking Simulation?

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Key words: standardised patient, simulation, history taking
Research outside Singapore shows that well-trained Standardized Patients (SPs) can provide reliable feedback to students during assessments. One important benefit of this structure is that high-demand, high-cost faculty hours are reduced. Whether SPs can replace Duke-NUS faculty examiners depends on SPs' demonstration of accuracy and reliability. We conducted a pilot study comparing SPs' checklist results with those of faculty examiners during a history taking simulation. The study included all the SP interviews that occurred during the first year students' mock history taking exam. Each of the 26 students interviewed one SP. Materials were an in-house Medical History Checklist. The 35 checklist items are scored as Asked or Not Asked. SP and faculty checklists were compared item by item. Mean scores were compared using a t-test. Correlation between the two scorers was analyzed using a Pearson score. SP mean score was higher than Examiner mean score for the Medical History Checklist (84.86 8.7 versus 82.72 10.2, $P < 0.01$), and there was a strong correlation between SP and Examiner scores (Pearson's correlation coefficient 0.819, $P < 0.01$). Results show a strong correlation between SP and Examiner scores and demonstrate that SPs score students higher. The good correlation reinforces the idea that SPs can be used to reliably complete a checklist during a history taking exercise. However, interpretation is limited by the absence of a gold standard of accuracy. Expanded study of SPs' performance, as well as improved training, are required before proposing the use of SPs as sole evaluators.

17

Students' Perspective on the Development of Clinical Decision Making Ability (CDMA) During Bedside Learning: a Pilot Survey in Japan

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Key words: clinical decision making, bedside learning, self-directed learning, curriculum, education, undergraduate
Although our previous study showed the students' CDMA increase during bedside learning, that was less than the knowledge increase. Whether CDMA can be increased more when students learn in different ways remains unclear. Therefore questionnaire survey followed by further interview via email was conducted to explore the effective learning strategy to develop CDMA. The questionnaire included: (1) a self-assessment with 5-Point scale of their CDMA/knowledge increase, and (2) the number of the in/outpatients who were undiagnosed before they saw. The interview was addressed to:

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(1) perceptions of the CDMA development/knowledge acquisition, and (2) positive/negative views of bedside learning. The 6th-year students who completed their bedside learning were encouraged to participate in the survey and 85 students of 86 consented the survey and 15 students joined further interview. The questionnaire survey showed; (1) 91% students assessed their CDMA to be improved and 92% students perceived that their knowledge was increased. (2) 99% students had examined 0–7 undiagnosed inpatients. 91% students had examined 0–11 undiagnosed outpatients. In the interview, students commented that while the combination of real practice and lectures was effective, they were dissatisfied with too many lectures. Although students appreciated supervised practice of making diagnosis with patients, they complained regarding the lack of such opportunities. The students valued their feedback on their reasoning and they reflected on their diagnosis. In conclusion, students need more patient encounters during bedside learning and well-supervised self-directed learning with discussion on diagnosis with peers and experts is effective to develop CDMA.

Key words virtual clinical round, medical students, medical cases
Clinical rounds are held routinely in wards of Tehran University of Medical Sciences. Faculty members discuss different patient problems during rounds. There are 15 participants in each round, including faculty members, residents and medical students. We designed a website for medical students to benefit from case-based discussions.The website, called "virtual clinical rounds", is designed for interactive learning. Cases are introduced to the students. Related pictures and charts are attached. Few motivating questions are asked to promote discussion. Students discuss the case under supervision with their professor. Each case is active for a specific time period and then is archived. Four types of medical cases were introduced to students: review cases, diagnostic cases, ethical cases and difficult cases. Medical students do not have the opportunity to have clinical rounds for a wide range of patient problems. This site provides a virtual environment for students to discuss different cases. Archived cases should be considered as rich educational materials.

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Problem-Based Learning as Viewed by Medical Students in a Non-Problem Based Medical Curriculum

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Key words problem-based learning, medical students
The Medical Faculty of the International Islamic University Malaysia runs an undergraduate medical programme which implements a combination of traditional and new medical curricular trends. Problem based learning (PBL) is one of the teaching-learning approaches used in the preclinical years. This study analyses the effectiveness of PBL from the preclinical and clinical students perspective. Survey questionnaires were distributed to 196 Phase 1-preclinical (Years 1, 2) and 91 Phase 2-clinical (Year 3) students of academic session 2006/2007. The questionnaire consisted of 33 items assessing different aspects of PBL. Results showed that 86.4% of students agreed that PBL sessions achieved its aims of preparing students for the clinical years. Approximately 80% felt that the facilitators fulfilled their roles well. Thirty percent (59) of preclinical students indicated that they do not look forward to the PBL sessions. Only one third (60) of the preclinical students would like to have more PBL sessions. Sixty percent (55) of the clinical students however suggested that more PBL sessions be included in preclinical years as they found the experience beneficial in clinical years. Preclinical students however preferred lecture- based approach to PBL. Areas of concern relating to PBL included difficulty in: generating active discussion; confining oneself to specific tasks; lack of motivation, dominating facilitators, lack of confidence regarding the knowledge of peers and PBL cases constructed not based on real clinical scenarios. Our conclusion is that PBL is an effective study strategy in our non-problem based curriculum.

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Simulation of Clinical Rounds in the Web

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Developing a Faculty Development Programme for Improving Bedside Teaching

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Key words development, bedside-teaching, clinical, teachers
Bedside teaching (BST) is a fundamental component of medical training. BST provides a good opportunity to observe the students' performance and the holistic patient care. Unstructured BST and inappropriate comments may discourage students. Medical Faculty of Maranatha Christian University was founded in 1965. Many of our clinical teachers had no formal training in clinical teaching, so they have variable abilities and approaches to teaching. To improve and standardize clinical teaching skills, especially BST, we conducted a Faculty Development Programme in September – December 2008. 46 clinical teachers participated. The programme had four modules: clinical teaching, enhancement of BST with five steps and microskills, feedback in clinical training and performance-based assessment. The training method is based on focused group discussion, brainstorming, case study and role-playing. From the focused group discussion, participants identified obstacles of BST and need for changes in traditional BST methods. Questionnaires to evaluate clinical teacher's perception about BST were administered to all of our clinicians ($n = 60$). As compared to clinical teachers who had not attended the workshop (score 73.34 ± 15.1), those who had attended the workshop had better perception of BST (score 82.6 ± 9.4, $P = 0.035$). We conclude that it is necessary to introduce faculty development programme to improve bedside-teaching in our institute.

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Critical Thinking During Tutorial Process of Problem-Based Learning (PBL)

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Key words critical thinking, tutorial, seven-jump