

Dentist opinions about continous medical education programes in Ahvaz, IRAN

Keywords: CME

Authors: Shakurnia, A.

Institution: Ahvaz University of Medical Sciences

Summary: CME

Effect of clinical supervision program application on nursing students skill from their viewpoint in isfahan university of medical sciences in 2001

Keywords: Clinical Supervision ; Interpersonal Skills ; Professional Skills

Authors: Khalifezadeh, A.

Institution: Isfahan Medical sciences university.

Faculty of nursing

Summary: Abstract clinical supervision is a mechanism supporting both professional and personal development. The main purpose of this study was to evaluate the effect of clinical supervision on nursing students skills such as interpersonal, Professional and communication.

Methods: This is a quasi experimental study and 100 nursing students internship were selected by method of simple sampling and were divided into two case and control groups. For the case groups clinical supervision for two weeks were applied by a staff and an instructor while that for the control groups was a two week nursing practice conducted only by an instructor.

Results: The findings showed the means of interpersonal, Professional and communication skills and total skills from students viewpoint in the case group were statistically significant for pre and post application of clinical supervision but from students viewpoint in the control group they weren't statistically significant for pre and post conducted.

Conclusion: The results of this study indicate that designing teaching clinical courses based on clinical supervision model can promote interpersonal, Professional and communication skills of the nursing students.

The Academic Support Programme: an educational intervention to help medical students who are failing academically

Keywords: An Academic Support Programme

Authors: Brown, J., Evans D.E.

Institution: Barts & the Royal London School of Medicine & Dentistry

Summary: The Academic Support Programme (ASP), based at Barts & the Royal London Medical School provides tailored educational interventions for undergraduate medical students who are struggling or failing academically. The primary focus is to develop students' self directed learning skills & support them in taking responsibility for their learning. The programme focuses on students in their 3rd, 4th and 5th years and offers an 'educational diagnostic' interview with two academic support tutors which looks in depth at problems with learning. Evidence from the programme suggests that causes of academic failure are widespread & are sometimes not academic in nature. A tailored package of academic support is negotiated with the student & a learning contract is agreed. Support to students is carefully evaluated. The ASP also acts as a central liaison point throughout the Medical School and is represented on all major committees. Evidence from the ASP shows that demand is increasing for the service. Our presentation describes this transferable model of academic support, which is of particular importance in the present culture of student progression and widening access.

The effect of two educational methods, Classic and Critical Thinking Strategies (CTS), on the stable learning of nursing

Keywords: Critical Thinking, Education, Classic Education, Stable learning, Nursing students

Authors: Khalili.H*, Babamohammadi. H* and Hadji Aghadjani. S* (MSC) *Members of Faculty in Semnan University of Medical science

Institution: Semnan University of Medical Science

Summary: This study was performed to assess the effects of two educational methods, classic and CTS, on the stable learning of BSN students. The current experiment is a quasi-experimental study conducted to all of nursery students (n=17) of the 3rd semester of Semnan University of Medical Science. We divided gastrointestinal (GI) disease nursing course into two separate parts consisted of upper GI diseases and lower GI diseases. First part was educated with classic method and second part with CTS. Final test of each part was performed independently one week after the end of each part. In order to assess the stable learning in students, post test of each part was done with an interval of 3 months after the primary test without any preinforming. Data were analyzed using SPSS statistical software. Correlation coefficients between scores obtained by the subjects under study in the primary and secondary exams in CTS and Classical-based courses were 0.856 and 0.787, respectively. Both methods lead to stable learning in nursing students and there was no significant statistical difference between two methods.

Educating doctors within Primary Care

Keywords: community based education, vocational training for general practice

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Institution: Wessex Deanery, NHS, UK

Summary: An expansion of general practice training capacity is necessary for creating an increased number of career general practitioners and to provide training attachments for doctors intending to follow a hospital based career. This study investigated non-trainer general practitioners' views on undertaking a training role. About a fifth of these may be seen as potential trainers, and the main obstacles to taking on this role were found to be lack of time and competing practice commitments. Accommodation within existing practice premises was an issue for half. The majority of obstacles are intrinsic to the health care system rather than within individuals, and relate to money, directly or indirectly. Suggestions of how these could be addressed by deaneries include working closely with Primary Care Trusts (PCTs) & Workforce Development Consortia to develop better workforce planning and strategic planning to increase local capacity, and making strong representations of the need for adequate funding to support this.

Epidemiology Teaching: student and tutor perceptions

Keywords: Undergraduate medical education - epidemiology - qualitative study

Authors: Mandy Moffat, Hazel K Sinclair, Jennifer A Cleland, W Cairns S Smith, Ross J Taylor¹

Institution: University of Aberdeen

Summary: Epidemiology is generally considered to be a necessary 'basic science for clinical medicine', but teaching epidemiology to medical undergraduates can be challenging. There is concern that undergraduate medical students in the UK are not exposed to appropriate opportunities to learn and understand the fundamental principles of epidemiology (General Medical Council). In this study we aimed to explore students' and tutors' perceptions of the epidemiology teaching in the first three years of the Aberdeen, UK, medical undergraduate curriculum, with particular reference to the teaching in one strand of the curriculum, the Community Course. This was a qualitative study comprising two focus groups and six individual interviews with quota samples of 4th year medical students, and one focus group with a purposive sample of tutors. Our results indicate that students who need to use epidemiology more often to successfully progress throughout their degree programme are more aware of its relevance. Making epidemiology learning and assessment clinically relevant, and appropriate to the stage in the curriculum and students' level of understanding, is a priority to students and tutors. We should acknowledge that student learning is assessment/examination driven and so formally assess epidemiology throughout the undergraduate course using clinically relevant scenarios. Tutors require explicit training and clinically relevant teaching materials. Tutors require explicit training and clinically relevant teaching materials.

Identifying difficulties and supporting students with academic difficulties

Keywords: undergraduate medical education - supporting failing students - student perceptions - challenges for Faculty

Authors: Cleland, J., Chesser, A., Arnold, R.

Institution: University of Aberdeen

Summary: Weak medical students may continue with little guidance or intervention. Sayer et al (Medical Education 2002; 36: 643-650) identified that the key points for supporting students with academic difficulties are to identify reasons, particularly non-academic ones, for poor performance. This qualitative pilot study explores reasons for poor performance in a cohort of 5th year students who failed their final clinical examinations. Six students were interviewed in a focus group, then individually. Interviews were audio-taped and transcripts analysed. Analysis was inductive and based in grounded theory methods. Student records were consulted with the students' consent. Participation was voluntary. Students who failed their final year had usually been experiencing genuine personal difficulties associated with non-academic factors. They had not brought these to the attention of Faculty due to believing that they could cope themselves, asking for support would question their fitness to practice and/or it was not their responsibility to seek help, rather Faculty should have sought them out to offer support. Those students who had been previously contacted by Faculty found it difficult to accept that their concerns were genuine. Students with consistently below average performance and attendance perceived themselves as having no academic difficulties until their final exam. How to we work with students who do not appear to be self reflective? If we take too paternalistic an approach to we run the risk of impeding the development of independent practitioners able to take responsibility for their education as adult learners?

Comparison of critical thinking skills level between BSN students in first and second university degree, in Semnan University of Medical Science, Iran-Semnan

Keywords: Critical Thinking, Education, Nursing students

Authors: Babamohammadi.H*and Khalili.H*(MSC) *Members of Faculty in Semnan University of Medical science

Institution: Semnan University of Medical Science

Summary: In this study, we compared the critical thinking skills level of BSN students of first and second degree in Semnan nursing faculty. We examined all students studying for first university degree (n=70) and second degree (n=37) of nursing. We used The California Critical Thinking Skill Test, Form B (CCTST:F B) with 34 multiple choice questions to assess critical thinking skills level in students. Data were analyzed with SPSS-WIN application. Mean scores were 12.34± 2.45 for students of first degree of nursing and 11.27± 3.10 for students of second degree of nursing which was statistically significant (p=0.005). In BSN student of first degree, there were significant differences between mean scores of junior students and senior students (p=0.0001). No significant differences was observed between mean scores of first year students and second year students of second university degree of nursing. No correlation was seen between sex or age and mean scores of CCTST. A weak but significant correlation was seen between student averages in previous semesters and their scores in the test (r=0.31, p=0.01). Our findings showed that students of first degree are superior to students of second degree of nursing in critical thinking skills level.

Case problem based discussion compared with traditional lecturing improves Anesthesiology Residents Year1 comprehensive learning in preoperative assessment

Keywords: Postgraduate education, teaching methods, interactive, anesthesiology, case problem, training, preoperative assessment

Authors: Carrero-Cardenal, E.; Gomar, C.; Penzo, W.; Rull, M

Institution: Hospital Clinic. Barcelona University

Summary: Objective: To compare the effectiveness of two teaching methods for pre-anesthetic assessment: traditional lecturing (Group I = 29) versus a case problem based discussion (Group II = 25). Methods: A controlled, prospective, randomized and simple blind study. Sample size: 54 residents of anesthesiology on the first year of the training program (24 were included in 1999 and 30 in 2000) belonging to a region with 6 million inhabitants. Learning assessment was performed through case problems before (PRE) and after (POST) teaching. Evaluation included ability on clinical problems recognition, comprehension, memory and decision. Teaching objectives were defined previously by the team of professors and equal for both groups and two expert teachers conducted teaching in the two groups.

Results: Both groups significantly improved ability on clinical problems recognition (Group I: 77.46% PRE vs 90.43% POST; Group II: 66.75% PRE vs 81% POST), comprehension (Group I: 62.73% PRE vs 71.20% POST; Group II: 60.40% PRE vs 85.57% POST), memory (Group I: 48.71% PRE vs 73.28% POST; Group II: 50% PRE vs 78.65% POST), and overall score (Group I: 68.87% PRE vs 78.88% POST; Group II: 67.27% PRE vs 84.60% POST). There was statistically significant differences between groups on comprehension score POST.

Conclusion: The teaching method based on a case problem discussion was more effective than traditional lecturing for pre-anesthetic assessment because produced better comprehensive learning

Faculty members attitude on lesson planning in The Semnan University of Medical Sciences

Keywords: *concepts, profesor, lesson, planning*

Authors: *Saberian, M.*

Institution: *Semnan University of Medical Sciences*

Summary: Faculty members attitude on lesson planning in The Semnan University of Medical Sciences Saberian M. MSc Hajiaghajani S. MSc. Ghorbani R, PhD Malek M. MD.

1- Faculty member of Educational Development Center, Semnan University of Medical Sciences

2- Director of Educational Development Center, Semnan University of Medical Sciences

3- Research Manager Semnan University of Medical Sciences

4- Vice Chancellor for Education and Research Semnan University of Medical Sciences

Purpose: to identify the attitudes of semnan University of Medical Sciences (SUMS) on lesson planning. **Methods:** 53 faculty members of the SUMS answered A questionnaire with 32 questions. Results were analyzed by SPSS (mean, standard deviation, absolute and relative frequencies, Chi square)

Results: 88% of faculty members favored lesson planning before the beginning of the semester. But they found lesson planning a difficult task, because of their heavy workload. Of the faculty members, 60.4% organized their teaching classes according to a designed lesson plan, believed that it did affect the quality of their teaching.

Discussion: professor favored lesson planning and find it necessary to work according to such a plan, workload and lack of knowledge are defined as two main obstacles in doing so. It is believed that by decreasing the professors workload and provision of lesson planning workshops, these problems could be solved. Considering all these possible benefits further studies is needed to specify the effect of revealing lesson plan for the student

Study of the Internet Condition among the faculty members in Semnan University of Medical Sciences

Keywords: *Internet, Faculty members*

Authors: *Saberian, M.*

Institution: *Semnan Medical University*

Summary: Saberian M. MSc 1.- Hajiaghajani S.MSc 2.- Ghorbani R, PhD3 Kasaei M. GP. 4 Fatahizadeh L .BSc 5. - Faculty member of Educational Development Center, SUMS 3- Research Manager SUMS 4- Director of computer & information center SUMS 5- EDC, SUMS

Background: Access to Internet causes a high motivation in academic staffs. Hence management in universities attempts to provide Internet services for users. **Methods:** 62 academic staffs in Semnan University of Medical Sciences were given questionnaire; containing 18 demographic and related to the use of Internet. Data were analyzed through SPSS.

Results: 82.2% of academic staffs using Internet facilities, 68.3% at home and 30% at work. 64.7% believed that the speed of availability to information was not desirable, 44.2% believed that Internet expense was appropriate for them. 64.9% of the cases were Internet agreement with filtering the non moral website, but only 8.8% were disagreement. 80.7% believed that using the data banks contracted by Semnan University are necessary. 50% believed that holding the Internet training classes would be necessary.

Discussion: to aware the faculty members toward the Internet abilities and increasing the use of Internet, requires promoting the speed access to information. Thus to provide training courses for them, causes their abilities in data bank and their motivation are promoted. This increases the quality of research affairs, and the specialized information for teaching. It also facilitates access

use the Email and finally leads to publishing the lectures research results throughout the world.

Assessing Clinical Teaching with Standardized Students: A Feasibility and Validity Project

Keywords: *stealth student*

Authors: *Wilkerson, W. Gruppen, L.*

Institution: *University of Michigan*

Summary: The clinical years are an essential part of undergraduate medical education. The majority of this experience is interaction between learners (students) and housestaff being supervised by attending staff. For the most part, neither attending nor resident has had instruction in techniques for teaching or for evaluating student performance. Increasing workloads have made this responsibility more challenging in all clinical settings. Learner evaluations of faculty has limited influence on the quality of this teaching. This project examines the utility of standardized students as an innovative method for learner stakeholders to evaluate clinical education and faculty development efforts that are designed to improve clinical education and provide formative feedback for teaching improvement. A pilot study was conducted during a faculty development seminar. Fourth year medical students were trained to be standardized students. They received specific instruction in how to evaluate bedside clinical teaching and then evaluated the teaching performance of faculty in a series of simulated teaching encounters. A future study will have standardized students review videotape of faculty-student interactions to allow us to estimate inter-rater reliability and refine the technology. Our aim is to incorporate a third phase: the stealth student. Thirty stealth students and their classmates will take their third year required clinical rotations and provide teaching evaluations on a specific set of target faculty. Data will be compared with traditional student ratings. Stealth students may hold promise for more specific and useful information and the quality of clinical teaching in medical school.

Using one-way mirror for teaching clinical interview: an experience

Keywords: *Clinical interview, medical students, interview techniques*

Authors: *Arman, .*

Institution: *Isfahan University of Medical Sciences*

Summary: Training medical students for performing clinical interviews with children and adolescents is very important, although the presence of students in the interview room could cause interference in the interview process and elevate the resistance of patients for a good rapport. On the other hand, the child's behavior in the interview room is another important source for the diagnosis. In our Child Guidance Clinic, the use of one-way mirror between the two interview rooms increases the level of education for communication between patient and physician. One-way mirror is an effective tool for training the interview techniques. A supervisor on one side of a one-way mirror directly observes and intervenes in the work of a trainee therapist interviewing a patient on the other side of the mirror. The group behind the screen would be invisible to the patient and the therapist, although the patient would be aware of the presence of the observers. A two-way telephone would connect the two rooms. Using our experience could be a help in providing a good context for training interview techniques.

The Influence of Teaching Clinical Skills on Instructors' Psychological, Social and Professional Aspects

Keywords: *Instructor, General practitioner, Teaching, Clinical Skills*

Authors: *yamani, n.* **Institution** *Isfahan University of Medical Sciences*

Summary: Purpose: "Introduction to Clinical Medicine" in Isfahan University is an innovative course in which general practitioners work as instructors and have the opportunity to experience teaching in addition to clinical works. Since teaching, affects both teacher and students, this study aims to assess the influence of teaching on the instructors' psychological, social and professional aspects. Methods: This was performed as a qualitative study. The research population consisted of instructors who were all general practitioners and acted as facilitator in small groups working on physical examination and case discussion. The data collecting tool was a semi-structured interview. The interviews were transcribed and were confirmed by interviewees at the end. The data were analyzed according to Collize model.

Results: After coding the data, they were divided to three main categories including professional, psychological and social categories. The influence of teaching on professional performance included performing a correct physical examination, taking a detailed and correct history, increasing decision making ability and increasing professional knowledge. Some of the psychological effects were increasing self-confidence, job satisfaction and improving morale. The social effects of teaching were such as increasing social contacts and having a relationship with an academic environment

Conclusion: Considering the effects of teaching on instructors, teaching clinical skills by general practitioners can increase general practitioners knowledge and clinical skills and improve their morale. It is recommended to train general practitioners both for teaching skills and clinical skills and consider this, as an opportunity for physicians' continuing education.

Initiation to patient-centered clinical reasoning: an innovation at Laval University Faculty of medicine

Keywords: *clinical reasoning, communication skills, undergraduate program*

Authors: *Côté, L. Glenn, J., Frenette, J., Gingras, N.*

Institution *Laval University*

Summary: Until recently, the activities in our undergraduate medical program concerned with the learning of clinical reasoning, of communication skills and of the patient-physician relationship in medicine, were situated in different courses and had little coordination. With the goal of fostering an integrated and more complete acquisition of these clinical competencies by our students, we have modified the existing courses and initiated a new series of activities which began during the winter trimester of 2002. These activities aim at initiating the students to clinical problem solving in a context of a patient-centered medical interview. The principal challenge is to integrate the learning of clinical reasoning with that of patient-centered interviewing, using well-developed and appropriate communication skills. We have based the development of our interventions on the principles of cognitive psychology (e.g. using clinically significant material, progression of the learning tasks, learning situations which promote active reflective participation and practicing of the proposed skills). Our new activities include: Interactive courses on the patient-centered approach in medicine and on the communication skills used in medical interviewing; Clinical problem-solving in small discussion groups; Small group practice

sessions of patient-centered medical interviewing, coupled with clinical problem solving; Individual interview by each student with a person presenting a major health problem, focused on the effect of this problem on the person's life, followed by a written reflection by the student on this experience; Support activities for the faculty involved. The proposed poster will present the essential points of this innovation.

How can medical students learn self-directedly in the clinical environment?

Keywords: *Self direction; Clinical teaching and learning; Apprenticeship*

Authors: *Dornan, T., Hadfield, J., Brown, M., Boshuizen, H., Scherpbier, A.*

Institution: *Universities of Manchester and Maastricht, and UMIST*

Summary: Aim: Establish whether and under what conditions medical students can learn self-directedly in the clinical environment.

Methods: Design-based research conducted within a novel curriculum that continues problem based learning into clerkships. A web-based learning management system was developed to bring undergraduate medical students more in touch with their clinical learning objectives and provide ways of encountering appropriate patients. Evaluation was by qualitative analysis of 86 free response comments from student users and 66 free responses to an evaluation questionnaire. In addition, two groups of eight students took part in focus groups before and after using the system to explore their conceptualisations of self directed learning and experiences of it within the system.

Results: Students' narratives and self-reports of learning were rarely fully autonomous or subservient. They valued affective and pedagogic support, and relied on teachers to manage their learning environment. When support was provided, they felt motivated and were able to choose how and when to meet their learning needs. The learning management system was a useful adjunct. Interpreted literally, self direction was an inefficient method of learning that students defaulted to when support and guidance were lacking.

Conclusion: Self direction, as originally articulated and literally interpreted by many teachers, is a theory that fits poorly with the realities of learning in the clinical environment. Clarity of objectives and support give students a sense of direction that allows them to be self motivated.

Medical Student Self-Assessment: The Silent Competency

Keywords: *Self assessment*

Authors: *Weiss, P.M., Koller, C.A., Hess, L.W., Wasser, T.*

Institution: *Lehigh Valley Hospital and Health Network*

Summary: Objective: To determine if a medical student's self-assessment at the completion of the third year Ob/Gyn clerkship correlates with the institution's final grades.

Methods: Forty-six third year students finishing an Ob/Gyn clerkship at Lehigh Valley Hospital completed a self-evaluation form identical to the final rotation evaluation completed by the clerkship director. Students were asked to evaluate themselves on the following parameters: fund of knowledge, personal attitudes, clinical problem solving skills, written/verbal skills, and technical skills. Additionally, they were asked to predict their performance on the NBME Shelf Exam within pre-specified four point ranges (<25, 26-50, 51-85, >85). The data were then analyzed using the Chi-Square test of association.

Results: There was a statistically significant correlation between the students' self-assessment and the final clerkship grade in the

following areas: written/verbal skills ($p=.018$), and technical skills ($p=.006$). Students were not able to accurately perform self-assessment in: fund of knowledge ($p=.319$), personal attitudes ($p=.516$), and clinical problem solving skills ($p=.725$). Additionally, they were unable to predict their own NBME Shelf Exam scores ($p=0.559$).

Conclusions: At the end of their Ob/Gyn clerkship, third-year medical students are better at assessing their technical and written/verbal skills than their global fund of knowledge and personal attitudes. These results may suggest that students aren't aware of their own personal attitudes and communication skills and how they can affect their effectiveness as a physician.

Continuing Medical Education to Continuing Professional Development, the Kosovo Experience

Keywords: CPD. Kosovo. WFME

Authors: Hedley, R.

Institution: University of Pristina, Kosovo

Summary: Continuing Medical Education to Continuing Professional Development, the Kosovo Experience. Between 1989 and 1999, Kosovar academics and professionals in all disciplines were systematically expelled from their posts. A parallel system of education and training was developed in Mother Theresa clinics. Doctors kept up to date as best they could without access to libraries. Following the intervention of NATO in 1999, a CME Board was established. An Administrative Instruction was issued such that all registered doctors would have to be revalidated in 2007 and every 5 years thereafter. In primary care a curriculum was developed for 100 general practitioners in six modules. For secondary care, specialists from across Europe were invited to give lectures and demonstrations. In 2003 the European Agency for Reconstruction (EAR) issued a tender including the reform of continuing professional development. The bid by a consortium headed by HLSP was accepted. A study tour was organised in 2003 to the Copenhagen conference of WFME for influential Kosovars who would become change agents. A small group of these, facilitated by international experts, produced an action plan based on the WFME standards, introducing in particular the concept of the Personal Portfolio in CPD and its linkage to revalidation. This was presented to stake holders at a conference in Prishtina and accepted unequivocally. The action plan is now being implemented.

1. World Federation for Medical Education. Continuing Professional Development. Global Standards for Quality Improvement. WFME. Copenhagen 2003. <http://www.wfme.org>

"Student Selected Components" (SSCs): threatened opportunities?

Keywords: Student Selected Components: Ethical approval;

Authors: Black, A.

Institution: University of Bristol

Summary: "Student Selected Components" (SSCs): threatened opportunities? The General Medical Council deems that 30% of the UK undergraduate medical curriculum should be devoted to SSCs - to enhance learning capacity through variety of learning experience. In Bristol, "external" SSCs (outside the normal modules of teaching) are unrestricted as to subject matter, provided that learning objectives are sufficiently novel and challenging. Students are encouraged to recruit a supervisor to discuss and agree objectives and specific marking criteria. The resulting diversity of subject, investigative approach and supervisor/assessor challenges attempts to devise a valid summative mark.

As co-ordinator of the programme, I have so far reviewed two thirds of the external SSCs undertaken by third year Bristol students in July 2004. They overwhelmingly indicate learning ende-

avours well beyond the already familiar library work. Three quarters are clinical investigations: of these, most are retrospective observational cross-sectional or longitudinal studies (some qualifying as "clinical audit") requiring access to patient information, while some are based on questionnaires directed at healthcare workers or patients. Without sharing more explicit background information with each supervisor, I could not psumary (and did not set out) to validate or moderate their marks. Quite apart from their educational value to the students, many SSCs are invaluable contributions in their own right to healthcare. With a few notable exceptions, scant regard has been explicitly paid by students or supervisors to the correctness of "research governance". Insisting on these may restrict students' future access to vital, high-grade learning experiences.

Assessment of their learning styles in a group of cardiology medical residents

Keywords: medical education - learning styles - medical residency

Authors: Alves de Lima, A., Betatti, M., Baratta, S., Falconi, M. Soken, F., Galli, A., Barrero, C., Cagide, A., Iglesias, R.

Institution: Argentine Society of Cardiology

Summary: Objective: To identify the learning styles of a group of medical residents that pertain to a university cardiology course from the Argentine Society of Cardiology. Population and method: An observational and transversal study was carried out, based on a 120-item survey developed by Vermunt and collaborators. According to this survey it is possible to identify four styles: reproductive directed, meaning directed, application directed and undirected. Each style shows characteristics that differentiate one from the others: 1. cognitive processes, 2. regulation processes, 3. mental models and 4. learning orientations. Results: The questionnaire was answered by 149 cardiology medical residents between April of the year 2001 and April of the year 2002. Average age was 29 ($\pm 2,7$) years and 63% were male. Predominance of concrete thought was observed in processing strategies ($4,05 \pm 0,65$) and of self-regulating mode in the regulation ones ($3,38 + 0,59$); however, in learning orientations vocation prevail ($4,47 \pm 0,50$) and in mental models application ones stood out ($4,28 + 0,45$).

Conclusion: All of these characteristics correspond to an application directed learning style.

Education for clinician scientists: the Cambridge MBPhD programme

Keywords: Academic medicine; MBPhD programme; careers

Authors: Wood, D.F. Cox, T.M. Peters, D.K.

Institution: University of Cambridge School of Clinical Medicine Box 111, Addenbrookes Hospital Cambridge CB2 2SP U.K.

Summary: The Cambridge MBPhD programme aims to encourage medical students into academic medicine. The programme was the first of its kind in the UK and enables undergraduates to combine their clinical studies with a period of research leading to MBBChir and PhD degrees. The programme started in 1989 and is integrated with the standard undergraduate course. Enrolment is open to students from Cambridge or elsewhere who have completed two years of "pre-clinical" medical studies, obtained a Bachelor's degree in a relevant subject and been accepted onto the Cambridge clinical course. The 3 - 3.5 year research period follows 15 months of clinical studies and includes clinical teaching throughout. Having submitted their PhD, students return to the final year of the clinical course. To date, 116 students have enrolled of whom 36 are women, 30 have transferred from other universities, 14 are overseas students and 9 are from the EU. Subjects for research vary from molecular sciences to projects in

general practice, radiology, pharmacology and neuropsychology. 56 students have graduated, with 41 distinctions in clinical subjects at final examinations. Of the 50 who graduated by 2002, 31 are in higher medical training and 17 in tenured or tenure-track academic posts, the pharmaceutical or biomedical industries. A high proportion of MBPhD graduates report continuing academic work and intention to continue clinical academic activity.

Changes in Self-Efficacy During Medical Education: Results of a 4-Year Study

Keywords: *Self efficacy; Medical students; Medical education*

Authors: *Perrot, L.*

Institution: *University of Arkansas for Medical Sciences*

Summary: According to Bandura's social-cognitive-theory, students' judgments of their capability to perform academic tasks (self-efficacy beliefs/cognitions) predict their potential to accomplish such tasks. Pajares found that students who have high self-efficacy will approach difficult tasks with feelings of serenity and see them as challenges to be mastered, and will have greater intrinsic motivation and set challenging goals for themselves. They can recover from failure more quickly and will attribute their failure to insufficient effort or the need for additional skills and knowledge. Bouffard-Bouchard, Parent, and Larivée found that students with high self-efficacy engaged in more effective self-regulatory strategies at each level of ability. He objective of this study was to evaluate self-efficacy of medical students as they progressed through undergraduate medical education.

Methods: A class of medical students was surveyed at orientation and re-surveyed at the end of each year of medical school to determine their self-efficacy beliefs about learning. The survey consisted of 11 of Bandura's items. Three subscales assessed beliefs about self-regulated learning, meeting other's expectations, and self-assertion. Students were asked to rate how well they could do each item using a 5-point Likert-type scale.

Results: The mean response for each item was calculated and changes in mean responses from fall to spring were determined. Results will be reported.

Conclusion/Discussion: When faced with the rigors of medical school, students re-assess their self-efficacy. Knowledge of the beliefs students hold about their own capabilities, therefore, may be a better predictor of their behavior than the knowledge and skills they have acquired.

Do family practice resident trainees ask better formulated clinical questions as they advance in their training?

Keywords: *Informal Consultation, Question Formulation, Self-Directed Learning*

Authors: *Bergus, GR; Emerson, M; Reed, DA; Attaluri, PA*

Institution: *University of Iowa*

Summary: Purpose: In earlier research we found specialty physicians more willing to support primary care physicians informally asking for assistance when the primary care physician asked a well-formulated question. In this study we investigate whether family practice residents improve in how they formulate clinical questions as they progress over their three years of training.

Methods: The study involved a retrospective cross-sectional analysis of questions asked by 49 family physician residents engaged in informal consultation with 32 subspecialists using an e-mail based system. The clinical questions were parsed using the PICO taxonomy. For this analysis, clinical questions were given one point for identifying the task involved with a clinical problem, a proposed intervention, or an outcome resulting in question quality being measured on a 0 to 3 scale.

Findings: There were 454 clinical questions available for this analy-

sis. The mean question quality was 2.08. Questions asked by first year residents had a mean quality score of 2.08, second year residents a score of 2.07, and third year residents a score of 2.09 ($p=0.98$). Thirteen residents used the e-mail service over their entire three-year training period. Although the individual residents showed significant differences in how well they formulated clinical questions ($p=0.01$), there was no evidence that the quality of their questions changed as they progressed in their training ($p=0.80$).

Conclusion: Resident physicians asked clinical questions that were moderately well-formulated although their question formulation did not improve as they progressed in clinical training. Specific skills training in formulating clinical questions might be helpful.

Faculty Development and Clinical Teaching in Medicine: Developmental process and orientations of a large-scale program aimed at all clinical faculty members

Keywords: *Faculty development, Clinical teaching*

Authors: *Chamberland, M.Hivon, R.*

Institution: *Université de Sherbrooke*

Summary: In response to societal demands, current agencies responsible for medical training now require that all of the components pertaining to professional medical competency be taught within the pre- and postdoctoral programs, and particularly during clinical training. These components, in conjunction with clinical reasoning, include among others communication, ethics and professionalism. In practice, clinical teaching of these components is most often informal, random and implicit, with teachers having very little preparation specifically geared to this task. In the aim of improving and to better integrate this training into actual bedside care, our institution has decided to invest significantly in faculty development. This poster describes the developmental process and orientations of an ambitious faculty development program aimed at our entire staff of clinical teachers. The fundamental steps in establishing this strategy are presented herein under four headings: background: prevailing challenges in clinical teaching as the basis of this initiative; 2. Conceptual foundations serving as backdrop to the overall strategy: a theoretical framework of learning and teaching and guiding principles for faculty development; 3. Methodology used in developing the program, inspired from "Problem-based Methodology" and action research; 4. Results: orientations of the program: a large-scale, progressive, iterative and continuing program, centered on the conscious and explicit exercising of role modeling and clinical

Integrating Communication and Clinical Skills into a Progressive Curriculum: Pearls and Pitfalls

Keywords: *Standardized Patients, OSCE, Curriculum Enhancement, Performance Evaluation, Communication Skills*

Authors: *Desai, G.*

Institution: *The University of Health Sciences*

Summary: Gautam Desai, D.O. Introduction: Formal physician-patient communication training at the University of Health Sciences (UHS) College of Osteopathic Medicine has previously been limited to first year students. Currently, physical examination skills are taught during the first two years. There was no course combining both communication and physical examination skills before 2002. Hypothesis Integration of communication and examination skills will improve the clinical performance of medical students. The culmination of the first and second years of training is the Clinical Skills Assessment, a multi-station OSCE designed to emulate clinical scenarios commonly encountered

during clerkships. Integrating communication and physical examination skills training will likely improve performance on clerkships and the national board examination.

Methods/Pearls/Pitfalls. A new course, Advanced Clinical Communication Skills, was created in 2002 to encompass core skills required during clerkships. At UHS, this course presented multiple challenges and opportunities to develop solutions. ******(Please insert attached JPEG table here)

Results: The Advanced Clinical Communication Skills course was successfully implemented and feedback from learners has been positive. Ongoing assessment of this program's success includes evaluation of preceptor feedback following clerkships, comparison to students who did not take the course, and UHS student success on the first performance evaluation component of national boards.

Challenges	Solutions
Large class size (approximately 250/class)	Repeated learning opportunities in small groups
Few full-time faculty	Use of part-time community faculty
Proper performance of physical exam skills	Enhanced training of standardized patients (SPs) & faculty review of videotapes
Implementing curriculum	Dividing class & alternating with other activities
Grading numerous progress (SOAP) notes	Objectifying feedback via scoresheet & faculty participation

Challenges in osteopathic medical education: technical standards meet accommodations

Keywords: *technical standards and accommodation*

Authors: *Joseph F. Smoley, PhD*

Institution: *National Board of Osteopathic Medical Examiners (NBOME)*

Summary: Osteopathic medical students in order to fully function as health care providers must make use of certain sensory and motor functions to permit them to carry out the practice of osteopathic medicine. In particular, the following areas are critical:

1. **Observation:** Students must be able to observe demonstrations, experiments, and microscopic laboratory exercises in the basic sciences. It is essential to have adequate visual capabilities to assess structural asymmetries, range of motion, and tissue texture changes.
2. **Communication:** Students should be able to communicate with patients in order to elicit information, examine patients, describe multiple patient characteristics, and perceive non-verbal communication.
3. **Motor:** Students must be able to execute movements required to provide general care and emergency treatment of patients (i.e., palpation, auscultation, percussion, etc). These actions require coordination of both gross and fine muscular movements, equilibrium, and functional use of the senses of touch and vision.
4. **Sensory:** Students need enhanced tactile, sensory, and proprioceptive abilities, in order to apply OMT.
5. **Strength and Mobility:** Osteopathic manipulative techniques often require upright posture with sufficient extremity and body strength. This paper will examine the challenges presented to osteopathic students in their osteopathic medical education and subsequent clinical training. The specific technical requirements for osteopathic medical training will be presented with discussion of approaches, applications within osteopathic manipulative treatment (OMT) and implications for a licensure examination.

Turning Teachers into Scholars

Keywords: *medical education research, scholarship in medical education*

Authors: *Morrison, C., Mereu, L., Kurtz, D., and Marrie, T.*

Institution: *Department of Medicine University of Alberta Edmonton, Alberta, Canada*

Summary: In an effort to promote research in medical education, the Department of Medicine surveyed all full time faculty with a major teaching commitment. The survey sought general and research interests in medical education as well as current level of medical education research. The survey was distributed to 53 members with at least a 35% or more job description of teaching. 70% responded. The most mentioned areas of general interest were postgraduate medical education and continuing medical education while the top two areas of research interests were postgraduate medical education and clinical skills. Eleven respondents indicated they had identified a research question in medical education but there was no pattern to these; they ranged from studying the comfort of students and residents with end-of-life decisions to comparing the effectiveness of rating scales and checklists in OSCEs. Respondents skill needs focused on evaluation techniques and learning about research methodology and data analysis. Current involvement in medical education research was assessed by determining memberships and reading levels. 35% of respondents reported reading one or more articles in a medical education journal in the previous 6 months and 27% reported that they were members of the Canadian Association for Medical Education. 84% indicated they would be interested in attending a seminar series on research in medical education. These results will guide the Department in creating peer writing groups, building a bank of potential medical education research questions, and raising the level of scholarship in medical education.

Teaching the teacher: a course for residents and medical specialists on teaching during clerkships

Keywords: *faculty development / teacher training*

Authors: *Fluit, L.*

Institution: *UMC St Radboud Nijmegen*

Summary: Introduction: In 1995 the University Medical Centre Nijmegen started a new medical curriculum, based on latest educational concepts. As a result of these changes the role of the medical teacher has been changed. The question is how we can prepare teachers for this new role.

Method: A one-day course is developed for residents and medical specialists who are teaching medical students during their clerkships. The course is offered 6 times a year with 18 participants per course. Participants practice in small groups how to supervise and assess medical students, give feedback on a medical record, organise ward rounds and how to be a good role model. **Evaluation:** The programme is evaluated by a questionnaire. To evaluate the outcome participants are asked to formulate what they want to put into practice. Six months later interviews take place to assess to what extent this is achieved.

Results: In 2003 80 medical specialists and 6 residents from 13 specialties attended the course. Participants are very positive about the programme. Interviews show that they spend more time on teaching after the course by organising extra feedback sessions, more active involvement of the student, more time for feedback. **Experienced problems:** after some time old routines return, other members of the staff didn't attend the course and a one day course is too short to get really familiar with the teaching skills

Conclusion: Our first results demonstrate that this course can be considered successful. Follow up courses are necessary to further improve their teaching skills. In the near future this course will be mandatory for all medical teachers who are involved in the clinical clerkships.

Reform at the out-patient training fields of hormozgan university of medical sciences

Keywords: *Out-Patient Training, Health Centers, Integration of health services and medical education*

Authors: SAFA, O. NOORIAN, A., ASGHARI, N.

Institution: *Hormozgan University of Medical Sciences*

Summary: Training at the Urban Health Centers (UHCs) is one of the educational courses for medical and paramedical students. The importance of Out-Patient training to establish community-oriented students was our priority. This study aims to improve the quality of out-patient training, increase the educational role of specialized manpower at UHCs and emphasis on unanimity and integration of the responsibilities of the medical universities. Therefore, the criterias and indicators were established and the UHCs were assessed. The curricula for various skills were composed with the cooperation of the tutors of departments and the personnels of the UHCs. This led to improving the out-patient training and the health services.

Pastoral care:

Are things how they should be?

Keywords: *pastoral care, confidentiality*

Authors: Taylor, David and Jump, Liz

Institution: *The University of Liverpool School of Medical Education Liverpool*

Summary: As part of a longitudinal study into pastoral care in higher education, we have been analysing medical student attitudes to the support they receive from their personal tutors. In Liverpool, every medical student is assigned a personal tutor from amongst the academic staff (clinical and non-clinical), who is expected to offer support and guidance throughout the undergraduate course. We are about to embark on a new system of pastoral care that includes an explicit emphasis on personal and professional development, and this study is intended as a baseline from which to assess progress. In 2003 we administered a questionnaire to first year medical students (198 responses), identical to a questionnaire used in 1995 and 1999 (two years before and after the introduction of a PBL based curriculum). The students completed two parallel Likert-style panels; "How it should be?" and "How it is". There were 25 question stems, each starting "Tutors should...". Responses were rated 5 (disagree) to 1 (agree). The most important attributes for a personal tutor identified by the cohort of students in this study were related to confidentiality and accessibility (see table). The longitudinal study has provided a rich source of data from which to develop pastoral care systems but indicate a number of priorities and some areas for further improvement.

	Should be	Is
Tutors should keep information confidential	1.21 ± 0.57	2.00 ± 0.95
Tutors should be accessible	1.25 ± 0.58	2.77 ± 1.24
Tutors should be reliable	1.29 ± 0.59	2.42 ± 1.05
Tutors should be good listeners	1.32 ± 0.61	2.42 ± 1.04

Juggling concepts in teaching the patient centred consultation

Keywords: *consultation, patient-centered, skills training, teaching, evaluation*

Authors: Couper, I & Hugo, JFM

Institution: *University of the Witwatersrand & Medical University of Southern Africa*

Summary: The concepts of facilitation, clinical reasoning and collaboration provide a useful framework for the patient centred consultation. Facilitation describes the process of helping the patient to tell the story of the illness and open up issues pertinent to the problem. Clinical reasoning describes the process of

problem solving and incorporates focused history taking, physical examination, investigations and a comprehensive assessment of the problem. Collaboration deals with the process of joint understanding, decision-making and action between the doctor and the patient. Specific skills such as open ended interviewing, problem solving, hypothesis formulation and testing, and participatory planning are linked to the three concepts. Integrating these concepts, like juggling three balls, creates a useful model for teaching and evaluation, and for clinical practice. A skills training approach is used to teach undergraduate and post graduate students. The paper describes our experience of using this model in teaching and in evaluation.

Increasing Medical Students' Pediatric Clinical Skills in a simulated Environment

Keywords: *Undergraduate, Pediatrics, Parent-child Simulations, Clinical skills*

Authors: Skelley, R.

Institution: *Dalhousie University*

Summary: Increasing Medical Students' Pediatric Clinical Skills in a Simulated Environment Medical students are expected to demonstrate a basic understanding of pediatric clinical skills. Learning these skills with young children on the inpatient population is difficult due to the severity of illness. In 1999, a pilot project was developed using a parent with their child (SP pair) as simulated patients. A pediatric preceptor and 4 pre-clerkship students met as a group with one of several SP pairs. These patients were trained by an SP Educator to portray a specific presenting problem. All 86 students received this exposure twice. Since its inception, the program has evolved in size and scope. Today pre-clerkship students have two sessions each. In the first session, groups of four students, under the guidance of a preceptor, assess one SP pair presenting with a simulated growth and development concern. In the second, a group of two students assess an SP Pair with a simulated history of diarrhea and vomiting. Both sessions incorporate actual parent-child history. This program complements hospital inpatient teaching and provides an increased opportunity for students to practise their clinical skills, be observed and receive feedback from parents and preceptors. We will describe the challenges of using a unique approach where parent-child simulated patients complement the acquisition of clinical skills in pediatrics. The challenges are recruiting, training and scheduling of parents and preschoolers. Benefits for students, teachers, parents and their children will be discussed. In addition, qualitative and quantitative data will be presented to show the differences between the ward experience and the SP Pair experience.

The creation of video materials in education for health. A series titled "A healthy ageing"

Keywords: *video, education,*

Authors: Torres Sancho A*, Casas Baroy JC*, Vidal M*, Roma JM**, Castro R*, Bonafont A*, Rusiñol J*, Parra R**

Institution: *Universitat de Vic*

Summary: Introduction. One of the activities of the health professionals is the educative task. One of the activities is the elaboration of educational materials. The production of audiovisual materials is one of the strategies that can target a wider population, especially when the elder are the target population. Goal. To explain the creation of audiovisual materials for sanitary divulgation developed for the elderly. Methods and materials. A work group composed by: lecturers in Health Sciences, assessors in audiovisual production, and assistance professionals Results. The next methodology is the resultant process from the experience:

1. To select the themes based on the needs detected through several studies.

2. To determine and to agree the style and the features that the materials should follow.
 3. To develop the history by an expert. The author.
 4. To do the revision and the correction of the history by a philologist. To adapt the language to the target population.
 5. To plan the images for the revised history. Author and direction.
 6. The production: materials, spaces, actors and the filming. Audiovisual Service.
 7. Edition: to choose the scenes and to coordinate them with the history. Audiovisuals Service, director and author.
 8. Postproduction. Music, voice, subtitles. The Audiovisual Service.
 9. To design the graphic materials: logo, covers and etiquettes (video, DVD). Graphic designer.
 10. The promotion and the diffusion.
 11. To look for funding to achieve the continuity.
- Conclusions. Three videos of the series « A healthy ageing » have been edited. It is intended to spread them via the local network of TV. These materials also have confirmed their utility as support for the assistance professionals. We encourage the collaboration between lecturers and assistance professionals.

Mentoring and Role Modelling; why not teach about both?

Keywords: *mentor, mentee, role model, multidisciplinary workshop*

Authors: *MacLellan, A., Perrault Jean*

Institution: *McGill University, Montreal, Canada*

Summary: A 90 minute workshop on mentoring and role modelling, emphasizing the academic, professional and personal issues of career development was organized for the members of a Department of Pediatrics specialty division at McGill University, Montreal, Canada. All members of the multidisciplinary division attended the workshop (nurses, doctors, fellows, secretary, and psychologist). This poster will discuss the content of this workshop which was organized with a multidisciplinary audience in mind, what worked to make the topics relevant for the varied participants, the features of the workshop that would be helpful for future workshops on the same topics, the conclusions at the end of the workshop (was it helpful for the multidisciplinary team members?) and the outcome analysis resulting from a 4 month post workshop survey (did it really help?). It did help! The poster will also highlight the importance of discussing the roles of the mentor and of the mentee and the need to situate the discussion in the context of academic, professional and personal career issues in order to help health care professionals achieve a successful balance between career and personal life. References will be cited.

Student Reactions to Peer Physical Examination in an Early Clinical Skills Program

Keywords: *physical examination, peer learning, clinical skills*

Authors: *Pierce, D., Conn, J., McNair, R. and Dodds, A.*

Institution: *University of Melbourne*

Summary: Peer Physical Examination (PPE) is frequently used as a teaching tool in early clinical skills programs. Encouraging students to examine each other both within and outside class gives students the opportunity to become familiar with normal physical characteristics, as well as providing practice in examination techniques. However, in multicultural societies religious and ethnic sensitivities may cause difficulties. This paper reports a questionnaire study of student reactions to peer physical examination of the chest. 190 second year medical students at the University of Melbourne gave anonymous responses to an 18

item questionnaire, after providing information on gender, ethnicity and religious orientation. Data were analysed using hierarchical cluster analysis to identify sub-groups with similar attitudes to PPE. Three clusters were identified, with a single Discriminant Function, $X^2(12, N=190) = 300.44, p = .001$, accounting for 99.6% of the between cluster variability. Cluster 1 (n=88) had a large proportion of male students born in Australia or the United Kingdom. These students were very comfortable with PPE regardless of whether it was performed in class, with friends or with students of the opposite gender. Cluster 2 (n= 70) students were more likely to report holding religious beliefs than students in other clusters, and were neutral in their opinion of PPE regardless of location. Cluster 3 (n=32) students were more likely to be overseas students born in Asia, and to report feelings of discomfort and embarrassment about PPE in all situations. These results will be discussed in terms of both the practical and ethical issues raised by the disparity of opinions expressed by students.

Programme for information management in nursing studies using problem-based methodology (PBL) at the escuela universitaria de enfermeria "Vall d'Hebron" Barcelona

Keywords: *Management Information*

Authors: *Carulla, M.*

Institution: *Escola Universitaria d'Infermeria Vall d'Hebron*

Summary: Programme for information management in nursing studies using problem-based methodology (PBL) at the escuela universitaria de enfermeria "Vall d'Hebron" Barcelona Authors: M. Teresa Carulla Musons, Laura Montenegro Marchante, Maribel Fernández Cano

Introduction: During the academic year 2002/2003 we adopted the Problem-Based Learning methodology (PBL). One characteristic in our experience with the implantation of PBL, has been that, from the definition of competencies, objectives of learning were drawn up which integrate material from different subjects together with an evaluation methodology. Programmes of support for the students were also been designed in order that the students meet the objectives related with learning skills. These skills permit the students to develop effective self-learning techniques and motivation to learn. It is in this context that the information management programme and critical reading are involved.

Programme: Objectives The student acquires skills in: Search for information. Critical reading and evaluation of found evidence. Storage and handling of information

Methodology: A methodology was followed centred on the student, in groups of 15 with one tutor who assisted the learning process. There were 8 sessions of a 3 hour duration. The process of each session involved: performance, identification, discussion and evaluation of action(s). The differences with respect to PBL were that the starting points of the discussions were original articles which the students had previously selected. Evaluation Specific objectives were evaluated in the student sessions. This implied training in order to develop skills to carry out relevant information searches and was evaluated continuously in tutorial groups (PBL) by students and tutor.

Shifting faculty from a traditional curriculum to Problem-based Learning, the Maimonides experience: the Program for Continuous Improvement

Keywords: PBL, learning, tutors, skills, development, quality, problem, based, workshops

Authors: Castaño, H.; Roman, N.F.; Barrios, M.; Etchegoyen, F.; Goizueta, M.;

Institution: Universidad Maimonides - Faculty of Health Sciences

Summary: The Maimonides University School of Medicine, has implemented a new curriculum that emphasizes active, self-directed learning in small group tutorials. The aims of the Integrated Faculty Development System is to improve the quality of Tutors and to detect and correct possible flaws in their tutorial skills. The System is composed of different activities in which the tutors are involved: Tutoring Skills Workshops, Videotaping actual tutorials, medical education journal club, Problem Design Workshops, Problem-based Learning Workshops for other faculty and the Program for Continuous Improvement (PCI)

Method: Tutors detect problems or difficulties regarding the tutorial activities and write them down in a personal folder. One of them is in charge of summarizing and organizing all this information every two weeks. The faculty is split into 2 tutorial groups, 10 members each, that will have the task to find the answers required, guided by a Tutor Coordinator. These solutions are then put into practice and this iterative process continues as required.

Conclusion: The Integrated Faculty Development System provides not only a means of converting faculty from the traditional method to PBL, but also is a valuable tool for detecting and resolving problems in tutor's performance.

Working with critical incidents: a proposal for a learning diary as a tool for the mentoring of family medicine residents

Keywords: Critical incidents, learning diary, family medicine residents.

Authors: Torán P³, Montero JJ³, Arnau J¹, Forés D², Cots JM², Fornells JM¹, Martínez-Carretero JM¹.

Institution: ¹ Institute of Health Studies ² Catalan Family and Community Medicine Teaching Units ³ Ronda Prim (Mataró 7) Primary Health Care Team

Summary: Aim of this pilot experience was to test the usefulness of a regular written register of critical incidents encountered by family medicine residents during their final year as postgraduate trainees. Critical incidents consist on practical situations that rise doubts, generate perplexity or cause the resident's surprise, when carrying out his/her day-to-day health work. Participants were five last year family medicine residents working at primary health care centres accredited as teaching units. Data collection of critical incidents was done by means of paper forms designed to collect evidence of raised problems, learning strategies developed and solutions envisaged to improve the identified weaknesses in clinical competences. Main contents of forms was composed by: Critical incident description, its translation into a learning objective, tools used for learning acquisition, time spent and application to day-to-day practice of new knowledge gained. Residents Reflection was intended to revolve around four questions: What have I learnt?, How did I learn it?, What more do I need to learn? and How will I apply what I've achieved through this reflective learning process? Results: From 15 critical incidents analysed, a mean of two learning strategies was used, the most being: consult to protocols and guidelines (5), text books (5), consult to medical specialists (4) and to tutors (3). The mean time invested was only 33 minutes for each incident and in all cases the learning goals were reached.

Conclusion: Learning diaries like are useful formative tools that can easily been used by family medicine residents and tutors. They don't require neither technological devices nor imply a great workload, but to register habitually done activities and reflect on them. We think its implementation could greatly benefit the mentoring process of Family Medicine residents in Catalonia.

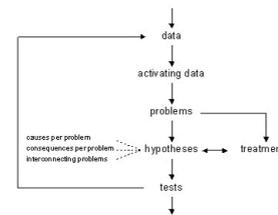
Teaching explicit clinical reasoning

Keywords: Clinical reasoning, teaching program

Authors: de Vries Robbé, P. Stuyt, P.

Institution: University Medical Centre Nijmegen

Summary: For 10 years at the University Medical centre Nijmegen a program has been carried out to teach medical students an explicit procedure to solve clinical problems. At first the procedure was developed for medical interns at the department of general internal medicine. When the curriculum was revised it was decided to introduce this Clinical Problem Analysis procedure to start from the first year and to continue this teaching into the internships. The procedure consists of several steps in a cycle that have to be carried out sequentially to solve a specific patient complaint. The procedure can be seen as a disease independent protocol. The first step is to decide if a finding is abnormal: we call this an activating finding. Activating findings are then grouped into problems, that for sure link these findings together into (a part of) a single disease process. For each problem hypotheses are generated and for each hypothesis tests have to be selected. In this way it is possible to ask for arguments for each decision that is suggested by the students. The CPA-procedure is give in figure 1. Examples of the workup will be given. The way of introducing several aspects of the procedure will be described and the experience of 10 years will be given. The development of a computer assisted teaching program will be presented elsewhere in this conference.



Financial Incentives for Teaching- Impact after two years experience

Keywords: teaching incentives, benefit scheme

Authors: Nippert, R., Graewe, U., Böckers, A.

Institution: Medizinische Fakultät, WWU Münster

Summary: The Medizinische Fakultät of the Westfälische Wilhelms Universität Münster, Germany, has implemented a scheme of financial rewards for teaching in medical education to achieve several goals:

- to improve the quality of teaching,
- to enhance the motivation in teachers
- to counteract predominant research orientation in faculty members. The scheme has been in place since 2002. Data from the first two years experience are presented and a critical appraisal of its effects and goal attainment is presented.

Effect of clinical supervision on the faculty teaching quality at nursing and midwifery school in Isfahan University of medical sciences

Keywords: *Clinical Supervision-Teacher Evaluation - Nursing.*

Authors: *salehi, s.*

Institution: *Isfahan Medical Sciences University*

Summary: Introduction: The question of work has been the kind of supervision needed to save and secure teacher's successful performance in his/her teaching career. The present study aimed at answering this question.

Methods: The study was performed in two phases: At first a quasi-experiment on 372 randomly selected students was done. The exposed group's teachers were under clinical supervision. In the second phase, the clinical supervision method was evaluated based on opinions of 50 faculties and educational authorities.

Results: In the exposed group, the rate of student's learning proved to be significantly higher ($P < 0.001$). Those students evaluated their teacher's professional behaviors as more positive compared to teacher evaluations made by students in the control group ($P < 0.001$). Full agreement and agreement to perform clinical supervision were expressed by 62.5 percent of respondents in the second phase study, whereas 91.7 percent of the same attitude was found toward self - evaluation. The majority of respondents insisted on maintaining stable environment for teaching, a decrease in number of students and proper teacher selection methods as the other solutions.

Conclusions: This method should be considered as one of the basic ways to develop educational system in the field of medical sciences.

Study of the effective clinical teacher characteristics from the perspectives of the students and the teachers in Isfahan Medical Sciences - Nursing and Midwifery School

Keywords: *Clinical Teaching- Effective- Education- Nursing- Midwifery*

Authors: *Salehi, S.*

Institution: *Isfahan Medical Sciences University*

Summary: Introduction: Clinical teaching is one of the most important areas of nursing education process. Therefore, a study of the effective clinical teacher characteristics is important from the perspectives of the students as well as the teachers.

Methodology: This research was intended to compare the teachers' and students' perspectives regarding effective clinical teacher characteristics in triangulation method. The research was carried out in two phases using two groups of participants in the school of nursing and midwifery. All the volunteers (teachers and students) participated in the study. First, using the Delphi method along with interview with the teachers and students, a 56- item questionnaire was formulated with the five domain " professional", " personal", " communicative", " teaching methods" and "evaluation" with 1 to 7 Liker scale. Then, using survey method .

Results: The mean of the clinical teachers characteristics as viewed by students and teachers were 6.26 and SD 0/91. A mean of 6.15 and SD of 0/96 showed that students grades and teachers grades were 6.19 with SD of 0/48. The difference between the means was significant ($p = .0/009$) .

Discussion: All the characteristics named in the questionnaire were approved by the teachers and students.

Inquiry-Based Learning in Action: Using the Tutorial Process to Enhance Students' Learning

Keywords: *Inquiry-based, learning, lifelong, student-centred, tutorials*

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Summary: Inquiry-Based Learning (IBL) is a student-centred philosophy that provides flexibility in learning and encourages students to develop a variety of skills - such as problem-solving, self-directed learning, critical thinking and integration of theory and practice. IBL enables academic staff to shift their role from lecturer to facilitator to enhance students' learning and prepare them for their professional role and lifelong learning.

This interactive workshop exposes participants to IBL concepts and models for learning through simulated small IBL groups, scenario-based, and larger group discussions. After an introductory presentation given by the workshop facilitator workshop divides into small groups with exercises. Participants will be encouraged to use aspects of the five step IBL tutorial process in a similar way to students - bringing their own experiences to the process, using scenarios to develop a meaningful approach to learning. The small groups have an opportunity to present their work to all. The workshop will be limited to 20 participants - for optimal interaction and experience.

Inquiry-Based Learning: Facilitators' Perceptions of their Role in the Development of Students' Self-Directed Learning

Keywords *inquiry-based, self-directed, learning, independent, lifelong, facilitator*

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Summary: The successful professional preparation of graduates is key in the ever more rapidly evolving and expanding practice environments of the health care industry. Inquiry-Based Learning (IBL), a student-centred philosophy, promotes the requisite flexibility in learning and encourages students to develop core skills - such as problem-solving, self-directed learning, critical thinking and to take responsibility for their own learning. IBL also obliges academic staff to shift their role from lecturer to facilitator - to enhance students' learning and prepare them for their professional role and lifelong learning. This presentation highlights the findings of a study that investigates facilitators' perceptions of their role in the development of students' self-directed learning. The implications of the study's findings, and recommendations for ongoing personal and professional development of IBL facilitators in the continuing search for meaningful learning experiences for students, will be discussed. Participants in the group discussion will have an opportunity to share their experiences and assess the extent to which similar insights apply to their own institutions. Relevant staff development will also be discussed.

Is multi-profession education possible: the Dutch Paediatric Advanced Life Support (PALS) course experience

Keywords: multi-profession, practical tests, MCQ, cognitive learning

Authors: Draaisma, Jos m th Turner N McB

Institution: UMC St Radboud

Summary: Introduction: The PALS® course, a two days course for all health professionals, consists of lectures, skill stations and scenario teaching. The main emphasis of the course is on the recognition of the child in established respiratory or circulatory failure and the development of the knowledge and skills required to prevent further deterioration towards cardiopulmonary arrest. Objective: To determine whether multi-professional education is possible regarding the test-results of the PALS® course.

Methods: On completion of the PALS® course, physicians and nurses from across The Netherlands took three tests (skill in basic life support, scenario-testing and a multiple choice question (MCQ-) test). Before the course, a MCQ was sent to the candidates and at the start of the course there was another MCQ.

Results: There was no statistically significant difference in the proportion of nurses and physicians who passed the practical tests. However, there was a significant difference in the MCQ-score at the end of the course, without a difference at the start of the course and on the precourse MCQ.

Conclusions: These results suggests that there is a significant difference in cognitive learning between physicians and nurses.

Student-Led Tutorials in Problem-based Learning

Keywords Problem-Based Learning, Student Tutors, Medical Education, Teaching Methods

Authors: Kassab, S.Hamdy H, Abu-Hijleh M, Al-Shboul Q.

Institution: College of Medicine and Medical Sciences Arabian Gulf University Manama, Kingdom of Bahrain

Summary: Objectives: To examine the effectiveness of using students as tutors in a PBL curriculum. Design: Third-year medical students were divided into 10 tutorial groups. Five groups (n= 44 students) were student-led (SLT) and five groups (n=47 students) were faculty-led (FLT). Outcome measurements included assessment of student performance in tutorials individually and as a group, examinations scores, assessment of tutoring skills and student perceptions about peer tutoring. Setting: A PBL medical school with a six-year integrated curriculum.

Results: Students scores in examinations were comparable in SLT and FLT groups. Self-assessment of student tutorial performance in SLT was not different from FLT. Student tutors gave significantly (p<0.001) higher tutorial marks than faculty tutors. Tutorial atmosphere and decision-making were better in SLT compared with FLT groups. Student tutors were perceived better in providing feedback and in understanding the difficulties students face in tutorials. However, SLT groups found difficulties in understanding and analysis of problems (cases) presented in the first tutorial session.

Conclusions: The impact of peer tutoring on student performance in tutorials, group dynamics, and student achievement in examinations is overall positive. However, the concerns raised about peer tutoring in this study are important before adopting this approach in PBL programs.

Tomorrow's Doctors?: the use of Problem-Based Learning in a UK graduate-entry medical course

Keywords: problem-based learning, group facilitation, student experience

Authors: Goode, J.

Institution: University of Nottingham

Summary: Problem-based learning (PBL) is increasingly being adopted in medical education, yet the literature concentrates primarily on its practical application in particular settings rather than examining its inherent complexities and challenges. An exception is a study of PBL in nursing and midwifery programmes,* which revealed a shift, as the programmes progressed, from content-driven to process-orientated pedagogical stances amongst facilitators. The facilitator role altered, from one of testing knowledge and filling gaps, to one of modelling, and developing transferable skills. Our study builds upon this work, by investigating the complex interrelationship between staff teams, group facilitation, and student learning. The study examines the use of PBL in the first eighteen months of a new Graduate Entry Medical (GEM) course. PBL was chosen as the core component of the GEM curriculum in response to the needs identified in the UK General Medical Council's 'Tomorrow's Doctors' recommendations on medical education. Using in-depth interviews, observation, and videoing at different stages of the course, this paper focuses on 'the student experience' of PBL, but locates this within the broader context of developments in relationships between the core team, facilitators, and students, as these unfolded. After briefly mapping the design of the course, and the place of PBL within it, we use interview extracts, observational data, and video clips to explore this version of medical education in action. *Savin-Baden, M., and Wilkie, K. (2000) Understanding and utilising problem-based learning strategically in higher education. 8th Improving Students Learning Symposium 4-6 September 2000 UMIST, Manchester, UK.

Informed consent as perceived by medical students on their first clinical clerkship

Keywords: informed consent, clinical clerkship

Authors: Rubinow, A.

Institution: Hadassah-Hebrew University School Medicine

Summary: Informed consent is the recognized practical and legal application that combines respecting patients' autonomy while providing relevant medical information in order to make healthcare related decisions. Being informed entails explaining the recommended steps in diagnosis and management, their benefits and risks and suggesting alternative options. Consent implies a voluntary, non-coerced, patient understanding of scientific material and a capacity to assess treatment choices and express a preference. Teaching these concepts to medical students and evaluating whether they can be learned is a major challenge in medical education. Following a 35-hour lecture based course in clinical ethics, 104 fourth-year students started their first 12-week clinical clerkship on a general medical ward. At the end of the sixth week each student was required to prepare a written report describing a patient he/she has encountered where an ethical problem was identified, discuss the conflicting ethical principles and offer way(s) to resolve the conflict. 62(60%) presented cases describing difficulties in the process of obtaining informed consent. Contentious issues included incomplete provision of information, deception, arrogance and insensitivity to patients' needs. Mutual participation of physician and patient in making decisions was inconsistent. 80% did not accept the notion of implied consent, particularly concerning the teaching of the intimate physical examination. 60% expressed reservations in determining the decision-making capacity of the elderly, demented and uneducated. Mutual respect for

persons and good communication skills are the main requisites for obtaining informed consent. Ethical concepts can be taught and the learning process evaluated at the undergraduate level.

Medical students' attitudes towards peer physical examination and the relationship between attitudes and demographics

Keywords: *peer physical examination, attitudes*

Authors: *Rees, C.E., Bradley, P., Collett, T. & McLachlan, J.C.*

Institution: *Peninsula Medical School, Universities of Exeter and Plymouth, UK*

Summary: With opportunities for dissection decreasing¹ and hospitalised patients being too sick to examine², the role of peer physical examination (PPE) is increasing. This study explores students' attitudes towards PPE and their relationship with demographics. 308 first-year medical students from two consecutive cohorts at the Peninsula Medical School, UK completed the Examining Fellow Students (EFS) questionnaire. At least 92% of students were comfortable participating in PPE of all body parts except breast and inguinal regions. More than 23% of students were unwilling to participate in PPE of the breast and inguinal regions. Students were more comfortable with PPE within gender than across gender and students were more comfortable examining a peer than being examined. Statistically significant univariate relationships existed between attitudes and gender, attitudes and age, and attitudes and religious faith. Students who were more comfortable with PPE were more likely to be male, younger and to not subscribe to a religious faith. Multivariate statistics demonstrated that gender was the biggest predictor of students' levels of comfort being examined by peers. Our findings demonstrate that students may show a greater willingness to participate in PPE than previously thought but that such educational programmes must be introduced with cultural and social sensitivity². Further research using qualitative methods are needed to explore more fully the barriers to PPE.

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2. Braunack-Mayer AJ. Should medical students act as surrogate patients for each other? *Medical Education* 2001;35:681-686.

Reflecting on sequential project work – difficulties with written documentation

Keywords: *reflection, written documentation, medical students*

Authors: *Jha, V and Murdoch-Eaton, D.*

Institution: *School of Medicine Leeds*

Summary: Introduction: Fourth year medical students carry out four projects during clinical attachments. A standard proforma allows them to document reflection on their learning at the end of each project.

Aim: 1. To evaluate documentation and quality of reflection through analysis of proformas 2. To determine if students demonstrating better documentation of reflection through the proformas also demonstrated better reflection during interviews and received higher grades for their projects

Methods: Both authors independently analysed proformas for narration of learning experiences and quality of reflection documented. Randomly selected students from each group were interviewed to evaluate how the proforma was being used for reflection, to determine differences between groups, allow students another opportunity to reflect on their project work and consider how this differed from their documented reflection. One-way ANOVA test for correlation between quality of documented reflection and quality of assessed project work was carried out.

Results: Four types of reflection emerged from proformas of 112

students: committed (21), emotional (29), objective (36) and scant (26). Students from all four groups verbally demonstrated good quality of reflection during interviews. One-way ANOVA yielded no significant differences between the groups when quality of documented reflection and the total marks for the projects were compared: $F=1.565$, $p = 0.202$, non significant)

Conclusion: Students find difficulty in documenting reflection. Students may rely on tutors to guide them in this process but this has implications in terms of time and personnel constraints.

Uni-professional response to inter-professional learning – Medical students in the Common Learning Project

Keywords *Inter-professional, pre-registration, team-working*

Authors: *Dr. Nick Lewis-Barned, Dr. Claire Dickinson, Dr. Alison Steven, Dr. Pauline Pearson*

Institution: *Northumbria Healthcare NHS Trust, University of Newcastle Medical School*

Summary: Enabling health professionals to learn to work together effectively for the benefit of their patients has been increasingly recognised as important in healthcare policy across the world. The Common Learning Project has been set up in UK to examine the potential for inter professional learning in a variety of clinical settings for pre-registration students from a range of professional groups including medicine, nursing, occupational therapy, physiotherapy, social work and speech and language therapy. Many of these already have inter-professional learning opportunities as a routine part of their undergraduate course. For medical students this is uncommon. We reviewed the responses from 7 medical students taking part in our pilot project. Feedback was gathered from student learning logs, notes from individual contacts after the end of the project, questionnaires and structured feedback in focus groups at the end of 2 cycles of the project in 2 adjacent health organisations. The results show that the experience was highly valued by the students, and in particular in relation to learning about teamwork and collaboration in practice, formation of professional identity, roles and responsibilities, stereotypes, levels of client-centeredness and similarities and differences. Recognising others' stereotypes of medicine was shocking. In some settings medical students experienced difficulties with supervision. There remain issues to be resolved, including organising communication between all parties, provision of appropriate support, and the best balance between profession-specific and interprofessional learning

Unlearning in healthcare system

Keywords *Unlearning, Assessment, Scientific knowledge*

Authors: *Clèries, X, Medina, J.L, Nolla, M.*

Institution: *Institute of Health Studies, University of Barcelona, Dr. Robert Foundation*

Summary: In the current times of globalization it becomes necessary to recover the critical thought that allows to look beyond what has presented itself as a lawful and real knowledge. In order to avoid the stiffness of the professional practices, it is indicated to study in depth the principles of unlearning: rupture with the absolute truth, impossibility of the unique point of view and critique of the technical rationality as the unique way of knowledge.

Objective: To describe and to analyze the contributions that health professionals made in the "Seminar: unlearning in healthcare system".

Method: qualitative study of the application of the methodology of unlearning in specific topics contributed by 17 health professionals, taking part in the seminar (March - October, 2003, Institute of Health Studies).

Results: The topics treated by the methodology of unlearning were:

- assessment in undergraduate education;

- application of protocols in health services;
- clinical competence assessment;
- conventional medicine.

Conclusions: The methodology of unlearning allows to question professional practices based on assumptions of little consistency regarding to scientific knowledge.

Reflective Learning Techniques: Effects on Medical Students' Learning

Keywords: *Reflective learning, qualitative research, deep approach to learning, undergraduate medical education*

Authors: Grant, A.

Institution: *University of Wales College of Medicine*

Summary: Background: Reflection can help learners to take a deeper approach to their learning and can raise their awareness of what they do and don't know. When adopting deeper approach learners integrate what they are learning into their existing cognitive structure. Learning in response to needs recognized by the learner is associated with greater satisfaction and recall. We aimed to discover whether reflective learning techniques could help bring about these changes.

Method: All 230 medical students in the third year were invited to taking part which consisted of keeping a learning diary with a structure based on the critical incident technique and attending fortnightly tutorial groups where students discussed their reflections with small groups of their peers. Evaluation was by semi-structured interviews with individual students. The transcripts of interviews and excerpts from students' diaries were coded then examined for emergent themes. Transcripts of negative cases were examined carefully. Findings were validated by independent analysis. Results: Of 19 participants interviewed 16 described qualitative changes in their learning. The most common changes were meta-cognitive, students becoming more aware of their knowledge base. Also described were stronger affective elements of learning and greater integration.

Conclusions: This study shows the potential efficacy of reflective learning techniques. It shows desirable changes in the learning of volunteers. Further work is needed to find out if the same changes would be seen if reflective learning techniques were introduced for all students.

Midwifery Postgraduates views about effect of midwifery subjects on their efficiency and skills

Keywords: *post graduate- midwifery subject-efficiency-skills*

Authors: *abedi, p(Ms) & Najar-sh(Ms) & khanfary(Bs)*

Institution: *Ahvaz medical university-Nursing&Midwifery school*

Summary: Abstract: Researchs showed that the maximum length of medical science is 5 years and after that it needs to renewing. So if the educational programs do not be according correct goals; and do not convey correctly; obviously it going to be a big problem. This study designed by goal Effects of Midwifery subjects on postgraduate, s skills from their view. Methods & Materials: This is a descriptive study and data collected via questionnaire. Totally 120 questionnaires have sent for postgraduate midwives and finally 100 questionnaires returned to us. We used SPSS for entering data to computer and use T- test and X2 test for analysing data.

Results: Results showed 6.5% of subjects suggested that general subjects have had good for their skills and 29% did not think so. About basic subjects 55.5% of them indicated physiology; 53.5% indicated anatomy; 40% indicated Biochemistry are more efficient for their skills. About special subjects; 79.5% of participants

satisfied with health service; 56.5% with general pharmacology; 57.5 % with especial pharmacology; 73.5% nursing techniques and 51.5% with especial English language. Participants suggested that obstetric; family planning; radiology; practical laboratory tests; neonates and nutrition therapy are more important for their skills. They also suggested training course of obstetric; family planning and gynecology have been more efficient for their skills. Totally 66% of postgraduates have satisfied with training course in hospitals.

Conclusion: It seems theoretical subjects must be reviewed again and again continuously. Besides, renew subjects contents is most important for education

Can Our Students Think and Do They Care?

Keywords: *Clinical decision-making, clinical skills, scholarship of assessment, ineffable skills, interpersonal skills, information gathering, clinical competency, behavioral ratings.*

Authors: *Hvidsten, L Hubert, J Moe, W Berg, M*

Institution: *Northwestern Health Sciences University*

Summary: This presentation is directed to faculty and administrators of clinical education programs. Ever worried that your clinical program produces robotic technicians instead of caring clinicians? This presentation reviews Northwestern Health Sciences University's systematic data collection and analysis to answer this challenging, yet necessary, question. The background, objective methods, results, and discussion of a recent study attempting to measure the ineffable skills of clinical thinking and interpersonal interactions will be discussed. Three theory-based subscales (information gathering, clinical decision making, and interactive skills) will be reviewed. Results of standard psychometric scale-construction analysis, Cronbach's alpha, confirmatory factor analysis, and Pearson's correlation will be discussed. Take-home from this presentation is two-fold: one model of systematic data collection and evaluation of clinical skills and motivation for non-research faculty to become involved in research, specifically, the scholarship of assessment.

Professionalising Work Based Learning

Keywords: *Work Based Learning, CATS points*

Authors: *Lynch, M. Gallen, D. Plint, S.*

Institution: *Oxford PGMDE*

Summary: The ending of the Postgraduate Education Allowance (PGEA) for General Practitioners in the United Kingdom recognises that credit based systems of education are not effective at changing behaviour. There is now the opportunity to rethink educational provision for GPs and multiprofessional teams. We recommend a system which is work based, engaging and motivating and reflective, and enabling change. We have created a framework of quality assured modules in association with Higher Education Institutes, which support multiprofessional learners to respond to their personal learning plans, rather than accumulating piecemeal credit provision for unconnected events in the past. Action learning sets enable individuals to identify and apply their work based needs, both personal and organisational. The Cumulative Accredited Transfer Scheme (CATS points) is the tool to "prove" the reflective, applied learning. The value is in the applied learning, but there is quality control and academic and professional recognition of the achievement. For example, applied learning related to the new GP contract quality framework could form part of the work leading to a Masters in Primary Care. This is a multiprofessional system, educational facilitators should support individuals to close the learning loop as teams rather than uniprofessional groups, facilitating sustainable change.

How prepared for clinical learning are students on an accelerated curriculum?

Keywords: *accelerated curriculum, student preparation*

Authors: *Tweed, M. Jackson, J.*

Institution: *Wellington School of Medicine. New Zealand. Leicester Warwick Medical School. University of Warwick, England*

Summary: The first cohort of students, on Leicester Warwick Medical School graduate-entrant programme, is nearing graduation. Little is known of the impact of curriculum shortening on the preparedness of the students for clinical training. Students completed questionnaires, consisting of 17 6-point Likert scale statements and open comments, to assess how well the mainly campus based Phase 1 prepared them for the mainly clinical setting based Phase 2. Statements related to preparedness for working in community and hospital, interacting with patients and staff, module adequacy and the learning environment. Two year groups of students from the start (junior) and end (senior) of Phase 2 completed the questionnaire. Questionnaires were returned from 114/132 junior and 24/65 senior students. There were differences in Likert responses (Mann-Whitney U, $p < 0.05$). Compared with senior students, junior students felt that P1: social science modules prepared them less for clinical work (median 4 v 2.5); prepared them better for practical skills (3 v 4); and prepared them better for working in the hospital environment (4 v 5). Qualitative responses support these quantitative findings with junior students feeling confident and prepared by the body systems content, whilst senior students commented on the introduction to personal health, the usefulness of which was only apparent as their experience increased. Experience gained by senior students, during their junior rotations, improved their awareness of the relevance of content, curbed their over-confidence and increased their awareness of limitations. Change in students' perceptions with experience is important when collecting feedback.

Enhancing the Professional Status of Standardized Patients: SPs as Adjunct Faculty

Keywords: *standardized patient, OSCE, medical education*

Authors: *Gammon, W. Fox, Holly Hinrichs, Margaret*

Institution: *University of Massachusetts Medical School*

Summary: Training SPs for teaching roles is a useful way to broaden the scope of resources an SP program can offer its institution. Traditionally, SPs simulate illnesses, record checklists and give basic feedback. Recently, in response to accreditation requirements and mandated SP-based licensure exams, overburdened faculty increasingly relies on standardized patients as a cost-effective and credible teaching alternative by training SPs as the primary educator in certain settings. Applications and techniques will be shared that enrich and elevate the SP role to adjunct faculty, a more professional SP status in the medical school environment. Topics include: Teach and reinforce communication skills: Teach the "funnel" questioning technique through trained SP responses during an OSCE encounter. Mini-Teaching Modules: Teach topic-specific medical lessons in the OSCE setting. SP becomes primary educator in initial exposures to unique challenges, e.g. Domestic Violence, Trauma Triage, Oral Presentations and handling Medical Errors. Training the Trainers - Collaborate with regional schools to share resources across SP Programs. Send SPs trained in skills including GYN, GU, PE and specialized OSCE cases. Skilled SPs teach both students and SP recruits at other medical school programs needing these skills taught or assessed. Faculty Development - SPs trained in giving more advanced feedback 'role model' for observing

faculty and introduce feedback that faculty then reinforces with students.

A comparative analysis of problem based learning and lecturing methods of teaching among students

Keywords: *teaching, lecturing, problem based learning, medical education*

Authors: *Pazargadi, M.*

Institution: *Shahid beheshti University of Medicine & Health services (S.B.M.U)*

Summary: The purpose of this research is to find the effects of each of the two teaching methods of problem based learning and lecturing on the students' learning in the BS level of nursing at shahid beheshti University of Medical science.

Materials&Methods: 35 BSc Nursing students in the course about nervous system, were chosen by random sampling method and following a preliminary test, were divided into two groups: the control group (taught by lecturing) and the experimental group (taught by PBL). A questionnaire with 12 personal items along with a preliminary with 4 MC and essay-type questions, the students' quiz scores and the mid-term exam were all responsible for the data collection.

Results& Conclusion: The means of the scores pre and post education through PBL seems to be more effective on the students' learning. The t-test showed a significant difference on the quiz conducted for both teaching methods and the student's score on lecturing method was higher than of the PBL. There was no significant difference on the mid-term and final exams in other group. Generally the mean score for the two teaching methods did not show a significant difference for the mid-term and final exams. The study concludes that the proposal which valued the PBL a more effective method over lecturing, is rejected ($PV = 0/00$).

Hierarchical Scales of Learning: A review of the literature

Keywords: *Deep learning approach,*

Authors: *Grant, A.*

Institution: *University of Wales College of Medicine*

Summary: A number of authors including King & Kitchener¹, Marton and the Gothenburg group², & Biggs³ have developed hierarchies whereby learning at different levels is described. The parameters which they use to define different levels of depth or sophistication of learning vary, Marton, and others have investigated the learner's approach to study. The SOLO Taxonomy makes inferences about quality and complexity of learning by observation of students' work. Perry and King & Kitchener examine students' ability to deal with uncertainty in their thinking. They use scales where the first level is a dualistic view of the world with increasing levels of ability to view the world as pluralistic. All these authors have researched their work rigorously.

Van Rossum & Schenk take this a step further by correlating the approach to learning and the observed outcome of learning. This work challenges teachers by to adopt teaching strategies that nurture a deep approach to learning and to encourage students to constantly perform at their highest level.

References:

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2. Kitchener, K. S. (1983). "Educational Goals and Reflective Thinking." *Educational Forum* 48(1): 75 - 95.
3. Marton, F. (1997). *Approaches to Learning. The Experience of Learning.* D. H. N. E. Ference Marton. Edinburgh, Scottish Academic Press: 39 - 58.

Learning Portfolio for junior medical students

Keywords: Learning Portfolios, medical students, adult learning

Authors: Hays, R.

Institution: School of Medicine. James Cook University

Summary: Learning Portfolios appear to offer significant opportunities to document and perhaps measure in learners the development of a broad range of desired attributes, including personal and professional issues. However, there are many types of Learning Portfolios, with substantial variation in what should be included and how components should be measured. There is also uncertainty about the extent to which the contents indicate more active reflection on learning, rather than more mechanistic collections of paperwork. It is likely that Learning Portfolios should be different for different levels of learner, with more mature learners more skilled in choosing materials relevant to their needs. This paper reports the experience of Learning Portfolios in one new medical school, where an innovative, highly integrated curriculum is supported by small group processes, extensive web-based resources, and personal Learning Portfolios to help students monitor learning progress. Many junior medical students have found the exercise of collecting materials for their portfolios to be relatively unproductive, as it is easier to collect than to think about the contents. In response the design of Learning Portfolios evolves from year to year and a rating form was developed to guide tutor-student reviews of the portfolios, through asking seven questions of both tutors and students. Results for a pilot of the rating form early in 2004 show that the questions provoked useful discussions between students and tutors and may have helped the students to develop a better understanding of the value of their portfolios.

Learning sexual history taking: a multifaceted curriculum

Keywords: medical education, communication skills, sexual education

Authors: Jotkowitz, A., Novak, V., Bonawitz, A., Heath M., Weinreb, B., Greenberg, S.

Institution: Ben-Gurion University of the Negev

Summary: We decided to add to our course in medical interviewing a curriculum in sexual history taking because of the difficulty students have in discussing issues relating to sexuality with their patients.

Method: The new curriculum was composed of:

1. A lecture on the approach to taking a sexual history from adolescents, middle-aged and elderly patients.
2. An hour session was devoted to practicing the techniques using role-play exercises.
3. Students were given a booklet of background material on sexual history taking
4. A seminar in sexual history taking was given to all students using standardized patients to practice their skills. The cases were a young patient with gonococcal arthritis and a middle-aged patient with concerns over decreased sexual desire. In both cases the patient could be a male or female and heterosexual or homosexual giving the students a variety of clinical scenarios. Before and after the course a survey on attitudes and skills in sexual history taking was given to the students.

Results: Students felt that their skills in sexual history taking improved but felt less comfortable taking one after the course. There was no difference in how they valued the importance of a sexual history. After the course 74%(14/19) of the students felt that they knew what questions to ask as part of a sexual history as compared to 37%(7/19) beforehand ($p < 0.05$).

Discussion: We plan to reinforce our students' skills in sexual history taking throughout the curriculum and to evaluate its effect on patient care.

Contributing to the education portfolio and promoting faculty retention through letters containing students positive narrative comments of their preceptors

Keywords: student evaluation of teacher, education portfolio, faculty retention, promotion

Authors: Dyrbye, L.

Institution: Mayo Clinic

Summary: Introduction: Student evaluations are considered important measures of a clinician-educators performance [1]. A pilot study was done to evaluate if letters summarizing students positive remarks regarding their preceptors could convey important performance measures and encourage retention of the most effective teachers.

Methods: Positive preceptor comments written in weekly electronic journals by medical students were collated and integrated into a letter, which was signed by the course chair and Dean. At the end of the course, the letters were sent to eighteen preceptors with a copy forwarded to the Department Chair. The preceptors and Department Chair perceptions of the letters value were assessed by survey.

Results: The letters included verbatim quotations along with summary statements reflecting the preceptors clinical skills, role modeling and mentoring, professionalism, enthusiasm, and teaching skills. The Associate Chair of Education (ACE) responded for the Department Chair. Twelve of eighteen preceptors responded (66% response rate). All respondents perceived student evaluations as an important measure of performance. The ACE and half the preceptors reported the letters assisted in documentation of teaching activities, the measurement of teaching success, and promotion of the faculty's reputation for excellence in teaching. All of the preceptors appreciated the letters and thought they revitalized their passion for teaching and reaffirmed their reasons for being on the faculty.

Conclusions: Narrative student comments can convey important areas of performance valued for promotion and contribute to the educational portfolio, but may have a greater impact on faculty retention and job satisfaction.

1. JGIM, 2003. 18: p. 711-716.

Ambulatory Teaching: Do approaches to learning and perception of workplace climate predict site and preceptor characteristics valued by clerks and residents?

Keywords: ambulatory teaching, approaches to learning, workplace climate

Authors: Delva, M.D., Schultz K., Kirby J.R., Godwin M.

Institution: Queen's University

Summary: Context: Approaches to learning and the complex interaction of the environment, personal factors, and opportunities are known to affect learning. In a study examining the site and preceptor characteristics important to learners in the ambulatory care setting we measured the approaches to learning in the workplace of clerks and residents.

Objective: Do approaches to learning in the workplace predict the valued site and preceptor characteristics in the ambulatory setting?

Design: Postal survey of all medical residents and clerks in training in Ontario.

Participants: 1642 responded (48% response rate)

Results: Using hierarchical modeling, the deep approach to learning predicts all of the preferred preceptor characteristics ($p < .001$). Preceptor direction is more strongly associated with the surface rational approach ($\beta = .252$, $p < .001$) and with the surface disorganized approach to learning ($\beta = .154$, $p < .001$). The deep approach to learning predicted valued site characteristics of offi-

ce management, patient logistics, objectives and preceptor interaction ($p < .001$). Having learning resources available and clinic set-up were most strongly predicated by the surface rational approach to learning ($\beta = .09$, $p = .001$, $\beta = .197$, $p < .001$). The surface disorganized approach to learning weakly negatively predicted patient logistics ($\beta = -.082$, $p = .003$) and positively the availability of learning resources ($\beta = .088$, $p = .003$). Climate factors were not strongly predictive. Role modeling and patient logistics were predicted by a supportive receptive climate ($\beta = .135$, $p < .001$, $\beta = .118$, $p < .001$).

Conclusion: Perceptions of the site and preceptor characteristics most important in the ambulatory setting are associated with a deep approach to learning, though some are associated with less effective (surface rational and surface disorganized) approaches to learning.

Helping Each Other To Learn- A Process Evaluation of Peer-assisted learning in an Early Patient Contact Module

Keywords: Peer-assisted learning, focus groups, communication skills, role-play

Authors: Dr LG Glynn, Ms P Clerkin, Dr A MacFarlane, Dr M Kelly, Dr P Cantillon

Institution: Department of General Practice, Clinical Science Institute, National University of Ireland, Galway, Ireland.

Summary: Background: We introduced peer-assisted learning into an Early Patient Contact (EPC) module for second year medical students.

Aim: We wish to establish the acceptability of this new teaching method to both peer teachers and learners, and factors that might promote or inhibit its further use.

Method: Peer teachers ($n=2$) were selected from the fifth year class to deliver a communications skills workshop as part of the EPC module. These students had completed and passed their summative OSCE in communication skills. They were interviewed before and after undergoing a three hour training session on small group teaching, role-play and feedback. Follow-up interviews were conducted after delivery of the communications skills workshop. Focus groups were conducted with peer learners ($n=14$) before and after delivery of communication skills workshops. Data was analysed according to the principles of framework analysis using Nvivo software.

Results: There was an overwhelmingly positive response by both peer teachers and peer learners and an obvious concordance of views in relation to perceived barriers and levers to this approach. A heightened awareness of the 'safe' learning environment and of the 'flow' of communication was also apparent. There was evidence of reciprocity of confidence-building and, as a result, educational exchange which provides a signpost to the unique characteristics of peer-assisted learning.

Conclusion: The delivery of a communications skills workshop by peer-assisted learning was both acceptable and beneficial to both peer teachers and peer learners. This method of teaching is now being extended into other areas of the medical undergraduate curriculum.

Roles, Characteristics and Values: Perceptions of Clinical Teaching at a New Medical School

Keywords: faculty development, clinical teaching, attitudes and values

Authors: Richards, L. & Bligh, J.

Institution: Peninsula Medical School

Summary: Introduction: The attitudes and values of clinical teachers is one of the key issues faced by medical educators as they plan the introduction of clinical teaching. Wright and Carrese

(2001) recently explored the values that clinicians aim to impart in their teaching. Other researchers have explored the roles and skills required of such clinicians (e.g., Mann et. al, 2001). However, little is formally known about how clinicians in hospital feel about the process of teaching, their concerns or expectations for teaching. At the Peninsula Medical School in South West England we are introducing a completely new undergraduate teaching programme during which students spend three years based at acute teaching hospitals. The curriculum is innovative, original and designed to reflect pathways of care rather than traditional clinical rotations. In addition students receive structured feedback each week using a modification of the clinical reasoning process as the academic framework for learning.

Aim: This paper presents results of a preliminary analysis of semi structured interviews from a purposive sample of clinicians from three hospitals before they teach students from this new Medical School.

Purpose: The purpose of the study was to explore their ideas, concerns and expectations of teaching.

Results: The transcripts were analysed using thematic analysis techniques to identify key concepts that emerged from the data. Preliminary results indicate four predominate themes running through through the interviews.

Discussion and implications: These themes are of considerable interest to faculty development and academic managers because they reflect current concerns and issues amongst bedside teachers.

Curbside consultations: Well-formulated clinical questions enhance specialty physicians' willingness to support the patient-based learning of primary care physicians

Keywords: Informal Consultation, E-mail, Question formulation

Authors: Bergus, GR; Emerson, M; Reed, DA; Attaluri, PA

Institution: University of Iowa

Summary: Purpose: Primary care physicians use informal consultation about patient-related problems as a primary means of updating their medical knowledge. We assessed whether the formulation of their clinical questions influenced specialty physicians' willingness to support this problem-based learning.

Methods: Retrospective cross-sectional analysis of 1350 questions asked of specialty physicians by family physicians engaged in informal consultation using e-mail. The clinical questions were assessed using the PICO taxonomy. Over 80 board-certified and resident family physicians generated the clinical questions concerning specific patients, which were sent to 32 specialists.

Results: There was an inverse association between how well family physicians formulated their clinical questions and whether specialist asked to directly provide care to patients. When the family physicians identified the area of a clinical problem (OR = 0.40, 95% CI, 0.22-0.74, $p = 0.004$), proposed an intervention (OR = 0.55, 95% CI, 0.40-0.76, $p = 0.001$) and identified a desired outcome (OR = 0.48, 95% CI, 0.27-0.76, $p = 0.002$) in their questions, specialists were less likely to recommend formal consultation. Fewer than 5% of questions containing these PICO components resulted in the recommendation of formal consultation, compared to 30% of questions containing none of these components. Including a comparison intervention in a question was not significant.

Conclusion: How well family physicians formulate their clinical questions during informal consultation influences whether specialists support the physician's desire to learn through solving a clinical problem. Question formulation is an important skill for primary care physicians.

Back to Reality – Student Supervision in the Clinical Area Increases Confidence in Performance of Practical Procedures

Keywords: *Clinical Skills, practical procedures, supervision*

Authors: *Wallace, D.; Haq, I.; Moore, D.; Bailie, G.; Peacock, J. Sampson, P.; Dacre, J.*

Institution: *University College London*

Summary: Medical Students are taught practical procedures on mannequins in the Clinical Skills Centre during their surgery firm. In a response to student feedback, the students were supervised by Clinical Skills Tutors in the Emergency Department (ED) in addition to teaching on mannequins in the classroom. The aim was to perform as many practical procedures on patients as possible. 32 students in the surgery firm on one campus were chosen to have the classroom teaching and ED supervision. 32 students were used as a control on another campus where they received classroom teaching only. The students signed up two at a time for two hours with the Tutor. At the end of the firm, the students completed a questionnaire and rated the change in their confidence levels over the 10 weeks. The students who had been supervised in the ED were considerably more confident in all of the practical procedures. 100% of clinically supervised students were more confident in performing venepuncture on patients compared to 63% of the control. 90% of supervised students were more confident cannulating patients compared to 58% of the control. Students benefit from practicing practical procedures on mannequins in the Skills Centre. Additional supervision in the clinical environment by a specified tutor considerably increases the student's confidence in performing the skill on a patient.

Professional Development of GP-trainers in Flanders (Belgium): evaluation of a Personal Learning Plan Supervision project

Keywords: *professional development, general practice trainers, supervision, evaluation*

Authors: *Goedhuys J. Stubbe C. Schol S.*

Institution: *Interuniversity Center for General Practice Education*

Summary: Context: GP-trainers in Flanders are to participate in continuing in-service-training. The Interuniversity Center for Education in General Practice used to organise all these trainings, but recently put up a project to leave the personal development mainly in the trainers own hands.

Objectives: to evaluate how GP-trainers are supported in the course of their professional development and to evaluate how they have experienced this support.

Subjects and materials: six staff members supervised between six and thirteen GP-trainers through several personal contacts. In all, fifty-eight GP-trainers participated in the project. Each of them was expected to draw up three learning-plans.

Methods: The GP trainers experiences were listed by means of a semi-structured interview and a brief questionnaire. The staff members produced a structured evaluation report with additional reflections on the course of the project.

Results: seventeen of the fifty-eight trainers drew up the three learning plans (29.3%). The GP-trainers medicine-oriented learning plans mainly focused on the implementation of evidence-based medicine (EBM) in their practice, whereas many didactic learning-plans stressed drawing up a learning-agenda and giving more and better feedback. Eighty percent of the trainers felt more involved in their training than in previous years. Both GP-trainers and staff members were rather enthusiastic about this concept of personal learning plan supervision.

Discussion: all those involved in the project agree that this type

of learning opens new perspectives for the professionalization of GP-trainers, providing that creative solutions are offered to reduce the labor-intensiveness of the supervision task.

A framework for effective supervision

Keywords: *supervision*

Authors: *Kilminster S., Cottrell D., Grant J., and Jolly B.*

Institution: *University of Leeds*

Summary: Supervision is seen as central to the effective training of doctors and yet has been the least researched and supported aspect of medical education. Our research (for example, Cottrell et 2002, Grant et al 2003, Kilminster and Jolly,2000) found strong evidence that, whilst supervision is considered to be both important and effective, practice is highly variable. In some cases, there was inadequate coverage and frequency of supervision activities. There was particular concern about lack of supervision for emergency and 'out of hours work', failure to formally address under performance, lack of commitment to supervision and finding sufficient time for supervision. We identified clear needs for a definition and for explicit guidelines about supervision as well as an effective system to address both poor performance and inadequate supervision. Effective supervision of trainees involves skills that are different from pure educational expertise, featuring more observation and continual feedback, sharing of clinical judgement and so on. In this presentation we will offer a framework for effective supervision which is based on our research findings and the literature. Cottrell D Kilminster SM., Jolly, B and Grant J., 2002 What is effective supervision and how does it happen? *Medical Education* 36(11):1042-9 Grant J, Kilminster SM., Jolly, B and Cottrell D. 003 Clinical supervision of SpRs. Where does it happen, when does it happen and is it effective? *Medical Education* 37(2):140-9 Kilminster, S.M. and Jolly, B.C. 2000 Effective supervision in clinical practice settings: A literature review. *Medical Education* 34(10):827-840

Does inter professional education offer added value? A comparison of training workshops for mixed and single professional groups

Keywords: *Inter professional education*

Authors: *Kilminster, S.; Morris P and Roberts T.E.*

Institution: *University of Leeds*

Summary: This presentation reports the findings of a recent research project comparing the effectiveness of training workshops delivered to mixed and single professional groups. In 2001 we ran a pilot IPE project. Pre-registration House Officers (PRHOs), student nurses and pre-registration pharmacists attended a series of three workshops intended to develop participants' understanding about each other's professional roles, to enhance team working and develop communication skills. The participants reported 2 main types of learning - better communication skills (with other professionals and patients) and greater awareness of professional roles. Participants also reported increased respect for other professions and improved professional relationships (Kilminster et al, forthcoming). Although the pilot project was successful we needed to establish whether it was feasible to offer such provision to large groups of students and whether delivering these workshops to mixed professional groups offered additional value to delivering them to single professional groups. Although the workshops had it been very positively received that could have been due solely to the content of the workshops rather than their inter professional nature. Therefore, in 2003, we delivered a revised version of the workshops to 120 final year medical, nursing and pharmacy students. There were 9 student groups ? 6 mixed professional groups and 3 single professional groups (medicine, nursing and pharmacy). This presenta-

tion will outline the results of the project. Kilminster SM, Stark, P. Hale, C. Lascelles, M. Morris, P. Roberts, T. Sowter, J. Thistlethwaite, J. Learning for real life: patient focussed inter-professional workshops do offer added value. Medical Education forthcoming

Developing tomorrow's leaders in health and social care education

Keywords: *Leadership, leadership development, inter-professional education*

Authors: *McKimm, J.*

Institution: *Leicester Medical School*

Summary: Developing tomorrow's leaders in health and social care education Many Higher Education Institutions have introduced internal staff development programmes in management and leadership. The majority of these are intended for senior staff, they are management-focused, intended to support top managers in their day-to-day work. A number of Masters level programmes in Leadership exist, Leadership modules are included in many MBA programmes and there are specific programmes for groups such as medical educators. The NHS in the UK also delivers an established programme for clinical leaders. This UK-based national project aims to develop a sustainable leadership development programme specifically for aspiring leaders in health and social care education. One of the unique features is an inter-disciplinary focus, bringing aspiring leaders together to learn about key aspects of leading health professionals' education. In the development phase of the project, a literature review and interviews and focus groups with selected leaders in medical and health care education were carried out. This enabled us to devise a programme which meets the specific needs of health education leaders and which, as one of its core outcomes, supports the development of a network of knowledgeable and skilled practitioners. The research also yielded some interesting findings relevant to all Higher Education Institutions with a responsibility for educating health professionals. Issues are identified at individual, organisational and professional levels, all of which impact on the development and achievement of future leaders, and which need to be addressed if health professions' education is to continue to adapt and develop in line with current educational, professional and clinical trends.

Changing patterns of CPD activity: Evaluation of CPD workshops

Keywords: *Continuing Professional Development (CPD); learning and practice; evaluation; reflection*

Authors: *O'Sullivan, J.*

Institution: *Chartered Society of Physiotherapy*

Summary: The study was designed to investigate the way in which physiotherapists integrated systematic continuing professional development (CPD) activity into their practice following attendance at a workshop on CPD. The literature offers a range of views regarding the association between CPD, professional practice and clinical outcomes, yet the purpose of CPD is to change practice and/or influence patient outcomes. The lack of clarity in the literature is exacerbated by a lack of consistent methodology in evaluating CPD. A one-day workshop addressing the rationale, process and methods of CPD was delivered to 14 groups of 30 physiotherapists located throughout the UK during 2002/2003. Evaluation of the workshop outcomes was based on Kirkpatrick's (1967) hierarchy assessing learning, performance and impact. Quantitative and qualitative evaluation data were collected, at the conclusion of each workshop and then six months after the event. 386 physiotherapists participated in the workshops. 98.2% completed the initial questionnaire and 44% the second. Analysis revealed the majority of participants increased their understanding of CPD and transferred learning into

practice. They also undertake systematic reflective practice enabling them to think about their practice in a more formal manner and maintain portfolios of their development. The workshops enabled participants to: develop skills to undertake informal learning based around practice; increase the time allocated to reflection, enhancing the link between CPD and practice; and develop skills to evaluate and evidence their learning and practice. Kirkpatrick, DI (1967) Evaluation of training. Craig & Mittel (eds) Training and Development Handbook. New York: McGrawHill

Intimate examinations: a challenge in Antwerp!

Keywords: *intimate examinations / simulated patients*

Authors: *Hendrickx, K.*

Institution: *university of antwerp*

Summary: Teaching gynaecological, uro-genital and rectal examinations in medical schools provokes practical, didactical and ethical problems. In Antwerp we developed a teaching strategy for intimate examinations for fifth-years undergraduates. The aim was to create a safe environment where students can learn these skills in healthy volunteers. Technical, communicative and attitude aspects are taken into account. This report describes implementation and evaluation of the program which is first and unique in Belgium.

Method: Twenty volunteers were recruited as Intimate Examination Assistants (IEA) and were screened for characteristics and motivation. They received an introduction in anatomy, technical examinations, doctor-patient interactions and feedback training: in our setting the IEA serves both as patient and as teacher. Medical staff was trained in supervising and coordinating the trainings. The students were informed on the scenario, and the technical skills were previously trained on manikins. 78 students performed three sessions (euro-genital-rectal, gynaecological, breast). Each setting consisted of two students, one IEA and one doctor. Hereafter students, IEA and supervisor had the opportunity for immediate feedback. Attention was mainly focused on personal attitude, technical and communication skills. The program was evaluated at 3 levels (students, IEA, supervising staff) by questionnaires, personal reflections of the students and round-table conferences.

Results. Qualitative and quantitative results describe the perception of the training by students, teachers and IEA. The scored items are: preparation, the examination itself, accompanying emotions, educative moments, difficulties, foreknowledge, time investment, motivation etc. Coupling the feedback moment immediately after the training, and, the integration of communicative and clinical skills represent the surplus value of this project.

Conclusion: The analysis on different levels supports the value of this educational project, and indicates the direction for further implementation of working with IEA in the curriculum.

Integration of an Outcome-based Medical Curriculum Using Core Clinical Problems and a Purpose Designed Integrated Teaching Area

Keywords: *Curriculum integration, Core clinical problems*

Authors: *Khogali SEO, McEwen J, Ward MR, Part NJ*

Division of Medical Education, Ninewells Hospital & Medical School; Life Sciences Teaching Unit, Faculty of Life Sciences

Institution: *University of Dundee*

Summary: The outcome-based undergraduate medical curriculum at the University of Dundee is delivered in three phases.

Phase 1 (1 year) and phase 2 (2 years) provide system-based learning of normal and abnormal structure, function and behaviour. During phase 3 (year 4&5) students satisfy curriculum outcomes by spending 4-week blocks in clinical practice and student-selected components covering approximately 100 core clinical problems (CCP). Dundee Medical School has a distinct Integrated Teaching Area (ITA). The ITA supports the medical curriculum by:

- 1) Promoting horizontal & vertical integration of the curriculum
- 2) Providing students with an opportunity to practice collaborative learning
- 3) Providing students with an opportunity for active learning
- 4) Pulling together various curriculum outcomes in relation to core clinical problems
- 5) Consolidating & supplementing information delivered in other sessions

This paper describes an ITA session designed to introduce clinical issues to first year phase 1 students during their first semester, having completed respiratory, cardiovascular and renal systems. The phase 3 CCP of "shortness of breath" was used as a mesh, involving patients' scenarios such as pleural effusion, pneumothorax, Type 2 respiratory failure and acute pulmonary oedema, together with supportive material (illustration boards, anatomical models, X-rays and medical equipment). Students worked their way in small groups through the scenarios using the supportive material with tutor support (basic scientist and clinician). The session received positive feedback in satisfying the educational objectives of the ITA as outlined above.

We conclude that a purpose designed ITA can contribute to vertical & horizontal integration of the curriculum.

Ethnicity and Readiness for Self-Directed Learning

Keywords: *Learning Styles, Curriculum Change, Ethnicity*

Authors: *Robert J. Bulik, Ph.D. Cecilia M. Romero, M.D.*

Institution: *University of Texas Medical Branch Galveston, TX 77555-1123*

Summary: The development of readiness for self-direction in learning, because it appears to be dependent upon prior experience and success in organizing, directing, and evaluating self-learning, may be influenced by culture. The question becomes: Is there a difference in the ability and belief of third-year medical students of various ethnic backgrounds to be self-directed in their approach to learning as measured by Guglielmino's Self-directed Learning Readiness Scale (SDLRS), Hoban's Self-Efficacy for Self-Directed Learning Questionnaire (SESDLQ), and clinical preceptor evaluation? Surveys were given to third year students during their orientation to the Family Medicine Clerkship. This study grouped responses to the SDLRS and the SESDLQ by ethnicity. The ethnic group descriptions identified by the Office of Student Affairs were used. There was no significant differences between the mean scores of the eight ethnic groups in this study ($n = 179$; $m = 237.26$; $SD = 23.43$). However there was an uneven distribution of scores lower than one standard deviation below the mean in two groups: Asian ($n = 45$; $>-1 SD: 26.6\%$) and African American ($n = 22$; $>-1 SD: 22.7\%$), when compared to the White Caucasian group ($n = 80$; $>-1 SD: 12.5\%$). We subsequently found a positive correlation ($p < 0.01$) between student readiness for self-directed learning and: a) belief in their ability to be self-directed learners (0.60); and b) clinical preceptor ratings (0.26). Consequently, we need to be aware of our own assumptions about students' ability to accept responsibility for learning in settings that emphasize self-directed, problem-based learning (PBL).

On-line interprofessional P/EBL

Keywords: *On-line, interprofessional,*

Authors: *Goreham, C. Fuller, J.*

Institution: *City University London, Queen Mary University London*

Summary: Background. In September 2003 two universities commenced an innovative graduate entry programme for nursing and medical students. During the first year 20% of the time or approximately one day per week is devoted to interprofessional learning. The aim of this was for the students to learn both from and about each other. A hybrid framework of Problem/enquiry based learning was developed. Also an on-line communication system was set up for the interprofessional student groups to facilitate communication because the nursing students were on practice placement for up to six weeks of every module. All facilitators and students were taught to use the on-line communication system.

Method of evaluation: The evaluation is based on Guba and Lincoln's (1989) 4th Generation evaluation framework. Evaluation data was obtained from paper based evaluation forms and student and facilitators focus groups.

Results. We will report on the evaluation after 6 months of the project. Possible reasons for the reduction in the use of the on-line communication system will be discussed along with alternative systems set up. Some analysis of the initial on-line discussions will be reviewed.

Students' Understanding of Research; implications for skills development and teaching

Keywords: *Research skills; curriculum evaluation.*

Authors: *Robley, W.*

Institution: *University of Leeds*

Summary: An understanding of what skills and components students consider is involved in research is important in the development of undergraduate programmes designed to appreciate research principles and provide research opportunities. Data gathered from student feedback questionnaires and focus groups, student and supervisor interviews and a curriculum mapping project of the Students Selected Component (SSC) programme has shown that concepts of what is involved in "research" changes, both of the perceived opportunities provided, and the skills developed. Aspects investigated included

- Is students' change of understanding a matter of terminology or an actual development?
- Are students' developing views of the research skills they need caused by the recognition of a skills deficit i.e. 'conscious incompetence'?
- To what extent is this recognition developed by the SSC programme?
- Does the SSC programme provide opportunities for students to develop the skills needed to bring them to "conscious competence"?

Early in the curriculum, students perceive research as an information retrieval activity, to answer a question for assessment purposes. Students nearer graduation consider research as an investigative activity, designing questions and methodologies with a practical or publishable outcome. However, they fail to recognise the importance of skilled information literacy from which to put their results in the context of published work. Does this highlight a difficulty in developing a range of research skills when some lie in the area of "conscious incompetence" whilst other may have moved to "conscious competence" or still remain in "unconscious incompetence"?

What is a learning need? The nature of medical educators' learning needs as described in their reflective diaries

Keywords: *learning needs, reflective diaries, medical educators*

Authors: *Greveson, G.*

Institution: *University of Newcastle upon Tyne*

Summary: It is argued that effective participation in continuing professional development [CPD] requires successful assessment of personal learning needs. Opinion is divided over doctors' ability to identify their own educational needs. Reflective diaries have been recommended as a tool to help health professionals identify learning needs by reflecting on their practice. There are few studies examining their use in the medical profession. This paper reports a case study of 93 students who successfully completed a Certificate in Medical Education course between 1997 and 2000. Data sources included reflective diaries, pre- and post-course questionnaires, course documentation and targeted interviews. 59 diaries were purposively sampled and analysed using a grounded hermeneutic editing approach 1. A range of learning needs was identified in the diaries, varying from simple statements of a gap in factual knowledge or skill to complex articulations of difficulty. Not all were explicitly recognised as learning needs by the diaries' authors. Drawing on theoretical perspectives and other data sources used, it is argued that the diary analysis gives insight into the different ways that medical educators view learning needs and, by implication, professional knowledge. The concept of learning needs is more complex and problematic than is usually portrayed. Their nature and relationships need to be understood as this has implications for the way CPD should be viewed and facilitated.

1. Addison RB (1999) *A Grounded Hermeneutic Editing Approach*. In: Crabtree BF, Miller WL. *Doing Qualitative Research* London, Sage.

Comparison of the students' Grade 12 symbols with their results in first year medicine

Keywords: *Grade 12 symbols, scholastic achievement, performance in medical course, comparison, academic support*

Authors: *Dr. MAMMEN, M.; Prof. GARL, M.*

Institution: *University of Transkei, South Africa*

Summary: University of Transkei pioneered the introduction of Problem-based Learning (PBL) and Community-based Education (CBE) as learning strategies for medicine in South Africa. The institution mainly caters for the students from rural areas with disadvantaged academic backgrounds. The admission criteria include cognitive potential based on the scholastic achievement of students in grades 11 and 12 while the non-cognitive factors such as interpersonal relationships, and social and intellectual skills are assessed during the interview. In the first semester the mode of teaching is mainly by lectures, seminars and practicals. However, in the second semester the focus is on the tutorial-centred PBL approach. The aim of this study was to find whether there was any impact of Grade-12 results on the students' performance at first year. The sample consisted of 181 first year students from academic years 2002 and 2003. Four written tests in the first year were included in the analysis, i.e. two per six-month semester cycles. The results of these tests were compared to the Grade 12 aggregate and also with symbols in Biology, Mathematics, Physics and English. The students with overall Grade-12 'A' symbols showed significant differences in their first year test performance than those with 'B' symbols. Only a few significant differences were found when the results of the 'C' symbol students were compared with those with lower symbols. Similar trends were observable in relation to the various subject symbols too except English. Two groups of stu-

dents could be identified, A & B symbols-group who were more equipped to deal with the first year curriculum demands than the C+D+E symbols-group. The findings suggest that students with C, D or E overall Grade 12 symbols are 'at risk' and need to be provided with intensive academic support on recruitment.

Facilitating Inter-professional Learning in the Practice Arena through an Empowerment Model

Keywords: *Inter-professional learning, clinical setting, empowerment*

Authors: *1. Samantha Shann 2. Marion Grieves*

Institution: *1. Northumbria University, UK 2. University of Teeside, UK*

Summary: Inter-professional learning is a key British Government agenda (Department of Health 1998 and 2000). Both authors are part of a pilot project - Common Learning - that is exploring the issues of promoting and further developing inter-professional learning and working within the clinical environment. One of the areas for development identified through the on-going evaluation of the project is the facilitative skills required of the practice educator with particular emphasis on empowering the students to manage their own learning. The main focus of the discussion therefore will be empowerment, considering the key initiatives of empowerment by exploring the hierarchy of professional needs as identified in Braye and Shoot (2000). Barriers to empowerment will be discussed and suggestions made for facilitating change considering the use of self, professionalism and team cohesiveness. The strategies adopted by the project team to encourage and support an empowered working and learning environment within the practice arena will be described. That challenges encountered and practical implications for the project team, practice educators and students will be discussed using feedback from those involved. Braye S, Preston-Shoot M (2000). *Empowering Practice in Social Care*. Buckingham, Open University Press Department of Health (1998). *A First Class Service: Quality in the New NHS*. London, HMSO Department of Health (2000). *The NHS Plan: A Plan for Investment, a Plan for Reform*. London, HMSO

Practice Based Assessment an Evaluation

Keywords: *Practice Based Assessment, evaluation, performance, continuing professional development, direct observation, videotaped consultations, assessment*

Authors: *Atkinson, K. Salamone, A*

Institution: *Royal Australian College of General Practitioners*

Summary: Practice Based Assessment (PBA) was developed as an alternative assessment method for Fellowship of the Royal Australian College of General Practitioners (RACGP). It was aimed at assessing practice eligible route doctors (those not involved in the general practice training program) who did not wish to sit the College Examination. The assessment method endeavours to determine "their performance as doctors within their own practice", using a variety of performance based assessment methods. These include direct observation, videotaped consultations review, viva, completion of a professional portfolio, and peer review. PBA as an assessment process, its development and inception, has been discussed at previous conferences. PBA commenced as a pilot in 2000 and has undergone several changes since its inception. The presentation discusses the results of evaluation undertaken of the PBA process and whether the method of PBA is more suited to experienced doctors than the College Examination. In particular it discusses the results of analysis of data from PBA over the last 3 years, including a comparison of PBA and the College Examination; the characteristics of PBA candidates versus the College Examination; the relationship between candidates' characteristics and their perfor-

mance in PBA and; the usefulness of PBA as an assessment method. The second part of the presentation describes the future directions of PBA as an assessment process, including the integration of assessment into ongoing learning and continuing professional development, meeting the needs of non-vocationally registered doctors and encouraging these doctors to attain Fellowship and undertake continuing professional development and the response of the RACGP to current workforce imperatives and the maintenance of standards.

Will a new Consultant contract, appraisal and a new reward scheme improve teaching in the NHS?

Keywords *appraisal job planning clinical excellence teachers*

Authors: *Robinson C, Pitt G, Ward M, Belfield, P.*

Institution: *Leeds Teaching Hospitals*

Summary: In the last two years the NHS has introduced three new initiatives regarding employment of consultants. We examine the impact of these on teaching and teachers in the largest Teaching Hospital in the UK. The initiatives are the use of systematic appraisal for Consultants, a new Consultant contract based on job planning and a new award scheme based on Clinical Excellence. All three connected initiatives affect our Consultant workforce of over 500 doctors and we describe their influence on the commitment and value of teaching. We describe the use of student feedback and peer review in appraisal with all the potential benefits and pitfalls. Positive feedback is welcomed, in contrast to the challenge in dealing with negative comments. Job planning requires Consultants to be clear how they spend their time in a new contract based on time. This allows scrutiny of time each individual actually allocates to teaching and we will compare and contrast full time NHS consultant work patterns with those of academics. We will also describe the joint approach to job planning taken with our Medical School. The new Clinical Excellence Scheme has a section on Teaching and clearly links financial reward to effective and committed teachers. We examine the early effects of this scheme introduced in late 2003. All three initiatives focus on individual responsibility and excellence and we believe if handled sensitively will improve teaching delivery and standards.

Refugee and asylum seeker health issues An innovative program to address unmet needs and put these issues on the education agenda

Keywords: *Refugee, community work experience, spiral of learning, innovative peer-education programme*

Authors: *Turner, M. Kent, H. Thomas, J. MacKay, A.*

Institution: *St George's Hospital Medical School*

Summary: Introduction: There are 12 million refugees worldwide; therefore this is a significant issue both globally and locally. To date there has been little in the St George's curricula about the needs of this diverse group or of the issues relating to providing appropriate services. A spiral of learning has been created where students gain experience in a practical setting and bring this into peer education. Trigger for peer education

- Initial interest from some students was triggered by negative and poorly founded attitudes to issues facing refugees and asylum seekers revealed by their colleagues. Students wished to raise awareness among colleagues and to inform discussion using a variety of mediums.

- Staff and students involved in healthcare courses at St George's were keen to use and build on their existing experiences to develop peer education.

Student Experience: •In collaboration with the Community

Placements Developer students set up projects with refugees and asylum seekers providing health advocacy, children's clubs and schools support. Through this student volunteers gain experience with this group. •Student project leaders ran a focus group with volunteers for them to feedback their experiences and discuss ways of incorporating these into their own courses. Peer Education •Two students chose to research issues relating to this group of health service users in their Special Study Modules. •Student project leaders used prior and recent experience in curricula sessions on refugee and asylum seeker issues and use of interpreters and in delivering a "grand round" to medical school and hospital colleagues. •Following success of the medium at a recent conference students developed an entertaining drama designed to challenge myths surrounding refugee and asylum seeker issues. This will be videoed and used throughout St George's and will be available to other medical schools as a novel educational tool.

Guideline for the Elaboration of the Continuing Education Plan for 2004

Keywords: *Continuing Education managing*

Authors: *Duro Martinez JC., Carrasco Gonzalez I, Rodriguez Vallejo J M, Agraít Garcia P, Ruiz de Adana Perez R., Millan Nuñez Cortes J*

Institution: *Agencia Lain Entralgo*

Summary: The "Lain Entralgo" Agency is the organization in charge of planning, managing, coordinating and evaluating Continuing Education in the Consejería de Sanidad of the Comunidad Autónoma de Madrid. This justifies the efforts that must be made to obtain a Continuing Education Plan that includes the needs demanded by the professionals and, at the same time, guarantees that the formative actions are aligned with the organizational objectives. The Guideline for the Elaboration of the Continuing Education Plan for 2004, a document prepared with the agreement of the Continuing Education coordinators of the 47 institutions that are affected by the Plan, is presented. Its main issues are to gather information about the resources available for Continuing Education in each center, to collect the formative needs in each organization and to offer standard forms for requesting new formative actions, for funding these activities,

Interprofessional Learning in West London, Joint Universities Multiprofessional Programme (JUMP2)

Keywords *interprofessional, undergraduate, collaborative, placements*

Authors: *Mitchell, F.*

Institution: *NW London Workforce Development Confederation*

Summary: The British government is promoting change in undergraduate healthcare education through strategic initiatives to improve interprofessional collaboration and effective team working in the National Health Service, (NHS Plan 2000). JUMP2 is an innovative undergraduate programme of interprofessional learning (IPL) funded by the NW London Workforce Development Confederation in partnership with the four universities and all the hospitals and community trusts in the area. Medical students (Imperial College London), nursing students (Thames Valley & Buckinghamshire Chilterns University College), and allied health professionals (Brunel University) are taking part in small group enquiry-based learning sessions facilitated by practising clinicians who work together in patient care. All activity takes place during clinical placements/attachments and several hundred students have already taken part. The universities are working closely with each other to develop common learning outcomes and the assessment of students' increased knowledge of collaborative interprofessional patient care. Qualitative and quantitative evaluation is being carried out using both desk and field methodology. Findings

will relate not only to students but also to teaching and administrative staff involved. This session will outline how interactive shared learning during practice placements/attachments can be successfully organised, and the benefits and challenges of this approach. It is a report of work in progress, though some preliminary findings from the evaluation team will be shared.



Widening cultural competence

Keywords: *Cultural competence, immigration*

Authors: *Allue X, Mascarella L, Comelles JM. Depts. of Pediatrics (Medicine), Anthropology (Humanities), Tarragona University "Rovira i Virgili"*, Tarragona, Spain*

Institution: *Universitat de Tarragona "Rovira i Virgili"*

Summary: As Spain becomes an immigrant receiving country, the cultural diversity evidences the difficulties for the newcomers. With a public health system of universal free coverage, paid for by taxes, to which any immigrant, legal or illegal, has the right to access, the difficulties originated by cultural diversities must be overcome.

Methods. Qualitative research using in-depth interviews, focal groups and learning communities, including health care professionals, cultural mediators and immigrants.

Results. The findings show that the difficulties are quite the same that the indigenous population complaints of: lack of understanding by physicians, too little time dedicated to visits, difficulties to understand the diagnoses, problems adapting treatment recommendations, poor compliance, use of ED for general medical care, loss of follow up, etc. Even the language barriers, aside the matter of literacy, reproduce the difficulties found by the local population in areas where two official languages (Spanish and Catalan) coexist. Cultural competence is not just a matter of taking care of minorities. As biomedical knowledge widens and expands infinitely, the general population lacks behind in their comprehension of new concepts and phenomenology. The biomedical and the popular cultural construction of health and disease diverge gradually up to the point that they become two well differentiated cultures. Many social groups act as "immigrants" to the new paradigms: adolescents, the elderly, the illiterate, and do need a closer, kindlier and indeed more competent approach in the part of practitioners.

The educational programs should include the principles of cultural competence in the curricula.

Is the communicative behaviour of GPs during the consultation related to the diagnosis?

Keywords: *Communication, general practice, diagnosis*

Authors: *Deveugele, M.*

Institution: *Ghent University*

Summary: This study explores the relation between the diagnosis made by the general practitioner and his or her communicative behaviour within a consultation, by means of the analysis of 2095 videotaped consultations of 168 General Practitioners from 6 countries participating in the Eurocommunication Study. The doctors'

diagnoses were coded into ICPC chapters and merged into 7 clinically relevant diagnostic clusters. The communicative behaviour was gauged by means of the Roter Interaction Analysis System. We found the most important differences for consultations about psychosocial problems as compared to all other diagnostic categories. In these consultations doctors show more affective behaviour, are more concerned about having a good relationship with their patients, ask more questions and give less information than in other consultations. The percentages of utterances in the other diagnostic categories were pretty similar. The communicative behaviour of doctors reflects a global pattern in every consultation. This pattern is the most stable for affective behaviour (social talk, agreement, rapport building and facilitation). Within instrumental behaviour (the other categories), the directions and the information the doctor gives are adapted to the problems presented. The results give suggestions for further communication training within the curriculum

Interprofessional Learning in Child Disability: a controlled study

Keywords: *Interprofessional Learning (IPL), Child Disability, Controlled Study*

Authors: *Ellis, M. Street, K. Emond, A. (1) Eaton, N. Clarke, B. Young, P. (2)*

Institution: *(1)Bristol University (2) University of West of England*

Summary: Introduction: Current demands for interprofessional healthcare training require evidence based learning opportunities. We describe the developmental process and results of the first 200 medical and children's nursing students to complete a community based child disability case study as an interprofessional learning (IPL) opportunity. The case study aims for student attitudinal change towards a more holistic family centred view of the restrictions to activity and participation resulting from children's disabilities. Educational Research questions Are the aims of the case study equally met by interprofessional and unprofessional pairs? Are there additional learning outcomes from working interprofessionally?

Method: Students are randomly allocated into interprofessional or unprofessional pairs. Each pair visit a child at home and in school and present their case to the rest of the group. Students complete a questionnaire on attitudes to IPL before and after using a validated Likert scale. Each pair's presentation is assessed by two blinded clinicians. Qualitative feedback is collected using focus group discussion with the students and telephone interviews with the families

Results: The degree of change in attitudes to IPL appear greater in the interprofessional pairs, however in a negative direction for medical students and a positive direction for nursing students. Presentations are comparable between all groups. Themes emerging from qualitative analysis include professional stereotypes and differing communication styles.

Conclusions: Family case studies are a feasible and popular IPL opportunity. There appear to be conflicting attitudinal changes for different professional groups. Improving communication within multidisciplinary teams emerges as a likely longterm benefit.

A faculty development program for clinical teachers

Keywords: *medical education, faculty development, teaching skills*

Authors: *Vicente Valdivieso and members of the Center for Medical Education, Pontificia Universidad Católica de Chile.*

Institution: *Pontificia Universidad Católica de Chile*

Summary: In order to contribute to the improvement of the teaching skills of our clinical teachers, the school of medicine of the

Pontificia Universidad Católica de Chile created a Faculty Development Program in 2001. This program is structured as a diploma, and consists of 5 basic courses: Assessment (including both, cognitive tests and OSCE), Adult Education and Problem-Based Learning (PBL), Clinical Ethics, Physician-Patient Communication, and Evidence-Based Medicine (EBM). It also includes optative courses, such as Leadership and Teamwork, and Scientific Expression. The courses have been designed as workshops and seminars to encourage active participation. Enrollment in the program is voluntary and courses are offered during the faculty working hours to foster participation. Since its introduction in May 2001, 254 (62%) of 409 clinical teachers have taken one or more courses of the diploma, 32 (13%) more than half of the courses and 9 have completed the program. The implementation of newly acquired skills and methodologies into actual teaching is strongly encouraged. As a result of these efforts, at present, OSCE, PBL-approach and EBM are being used at different levels of the undergraduate curriculum. We are currently working in the design of instruments to evaluate the impact of this Faculty Development Program in the quality of clinical teaching.

To strike the hand that heals you - patient assaults against medical trainees in teaching hospitals

Keywords: *medical students; occupational health; workplace safety; violence*

Authors: *Waddell, A.E. Katz, M.R. Lofchy, J. Bradley, J. Hodges, B.*

Institution: *Wilson Centre for Research in Education. Faculty of Medicine. University of Toronto*

Summary: Patient-initiated assault is becoming increasingly recognized as an occupational health concern. Although the phenomenon is most thoroughly studied in the nursing literature, all health care workers are at risk including physicians in training. (1) Studies involving postgraduate trainees indicate as many as 40% of trainees in psychiatry and internal medicine training programs have experienced patient-initiated assault.(2,3) Despite the high incidence of assaults during training, the majority of medical schools and post-graduate programs have minimal if any teaching or training in the area of workplace violence. There are often many resources in place at different hospitals to deal with employees injured on the job. However as a medical trainee, it is not often clear if one is an employee or not. Who deals with medical student injuries – the faculty or the hospital? Who is tracking these incidents to identify unsafe working environments? These are questions that are often not addressed by the hospital or the medical school and this can lead to incidents going unreported and students being unable to access support. This presentation will review the experience of the University of Toronto with patient-initiated assaults on medical students and highlight some of the curricular and institutional modifications that have been made. These changes serve to ensure students are aware of the risks and are placed in safe working environments as well as promoting the issue among the faculty supervisors.

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Ethics committees as a self-learning community. The CEA-CAT study

Keywords: *ethics committees, self-learning, bioethics*

Authors: *Roman B, PhD and Ribas S, BA MSc*

Institution: *Ethos Ramon Llull. University Ramon Llull University Barcelona*

Summary: Healthcare Ethics Committees are a good sample of symbiosis, necessary in bioethics, of two big ethics traditions: the ethics of virtue and principlism. In these committees there are three basic tasks:

a-Decision making procedures,

b-Elaboration of guidelines, and

c-Education, which is the most important of them three because in Ethics Committees is where habits are created and where in a long term excellences in deliberation and conflict solution are achieved. In the first part of this speech we defend the need to view Bioethics committees as a learning community in search of quality. As regards this, the second part offers a tool that could contribute to guarantee their correct development in their first working stage. This tool could be useful to

- Identify professionals' continuous training needs, define and improve more accurate professional profiles, - revitalize professionals attitude and compromise towards their organization, and - allow benchmarking in order to establish a training strategy towards excellence

Exploration of a New Paradigm for Instruction and Assessment of Diagnostic Capabilities: A Pilot Study

Keywords: *differential diagnosis, cognitive sciences*

Authors: *Papa, F.*

Institution: *UNTHSC*

Summary: Problem: Evidence-based approaches describing how to best train to, and assess, diagnostic capabilities are difficult to come by.

Methods: This investigation focused on training to and assessing students in the differential diagnosis of the problem of 'Congestive Heart Failure' (CHF). A single 'prototypical' case representation for each of eleven common and/or important etiologies of CHF was used to compare the diagnostic performance of students trained with cognitive sciences-derived principles (treatment group; N=59) versus students trained via a traditional classroom based approach to instruction in differential diagnosis (control group; N=64).

Results: The control group correctly diagnosed 57% of the eleven prototypical test cases while the treatment group correctly diagnosed 71% (a 25% performance difference). ANOVA yielded the following: $F(1,122)=35.8, p=.0001$. Cohen's d (effect size) 1.06 standard deviations.

Conclusion: Educators should consider cognitive sciences-derived principles, methods and tools in their efforts to construct a codified, evidence-based approach to optimal instruction and assessment of diagnostic capabilities.

Influence of small group facilitator on test results in a problem-based medical curriculum in South Africa

Keywords: *Problem-based Facilitator medical / Non-medical*

Authors: *Sommerville, T. van Wyk, J.*

Institution: *Nelson R Mandela Medical School. University of KwaZulu-Natal. Durban. South Africa*

Summary: Introduction: Our problem-based curriculum is structured in 6-week themes which include weekly cases which are discussed in small-group facilitated sessions. Doctors, paramedicals and others with tertiary education have been trained as facilitators, with an emphasis on process rather than content. To

investigate facilitators influence on learning, we related their background [medical / non-medical] to students scores in the end-of-theme tests [ETT].

Methods: Our first cohort of students was followed for 3 years and the 18 ETTs results compared by unpaired t-test or ANOVA according to facilitator status, individual facilitator, student sex, ethnic origin or academic ability.

Results: Of 197 students, 165 could be followed through the three years. Of 88 facilitators, 55 were medical, 33 non-medical. Examining mean ETT results for students facilitated by medical [56.1 ± 11.0] and non-medical [56.2 ± 11.5] facilitators no difference could be demonstrated [p = 0.712]. Significant differences were found between students grouped as to sex [Female 56.6 ± 11.2; Male 55.3 ± 11.5; p = 0.005], ethnicity [African 54.4, mixed race 54.7 < Indian 60.4, European 60.3; p < 0.001] or academic status [repeat students 52.8 < matriculants 56.9, mature students 56.2; p < 0.001].

Conclusion: A number of factors with the exception of facilitators backgrounds had significant effects on mean ETT scores. The implications of these influences will be discussed. ETT may not be the best indicator but it does suggest that facilitator qualifications are not of primary significance in our setting.

Effectiveness Factors in the Development of Improvement Programs: The case of the "Improvement Plan Quality & Health" (QiS)

Keywords: *Quality Improvement Processes. Learning Processes.*

Authors: *Corbella Jané, A. Institut d'Estudis de la Salut (IES). Generalitat de Catalunya. Barcelona. Roma Vergés J. Benavent Guardia J. Innova (Associació per a la Innovació Organitzativa i Social). Barcelona*

Institution: *Institut d'Estudis de la Salut (IES) and Innova (Associació per a la Innovació Organitzativa i Social). Barcelona*

Summary: The development of improvement programs, understood like processes of transformation and organizational innovation, requires the presence of certain conditions that make possible their effectiveness in an institution. Two of these conditions are: the existence of appropriate structures of support and learning processes. The IES in collaboration with INNOVA, has designed the Improvement Plan called "Quality & Health" (Qualitat i Salut - QiS), for its adaptation in institutions on demand for advise for the development of their improvement programs. The organizational structure that proposes the QiS consists of the following elements: General Impelling Group (GIG) or quality committee. Formed by the maximum people in charge of the institution. It has the property of the Program. Their main functions are to propose actions and work groups, as well as the decision-making on the ongoing projects and the introduction of changes. Impelling Group of Project (IG-p). Formed by the heads of the areas or units involved in a project. Its function is to facilitate the team work, as well as to advise on the technical and organizational aspects required. Improvement Team (IT). Made up of expert professionals of the process to improve. Their functions are to analyse the problems and to design improvement proposals. Both IT and IG-p, are temporary groups that finish their work when the project is finished. Coordinator. Professional with wide acceptance in the organization. Their functions are to coordinate the different groups involved, to give methodological support to the IT and to participate in learning actions in relation to the Program. Operation of these different groups, as well as the learning processes applied and practical experiences of application, will be exposed widely in the presentation.

Student led multi disciplinary team meetings –a medium for delivering inter - professional learning and 'joined up' care within a work place setting?

Keywords: *Undergraduate interprofessional learning, practice based, secondary care setting*

Authors: *Bluteau P.A.S, Jackson, J.A.*

Institution: *Coventry University, Coventry. Warwick Medical School, Leicester Warwick Medical Schools*

Summary: The constant drive for higher quality patient care is central to the developing agenda within the NHS in the 21st century. Coupled with this is the increasing emphasis being placed on the value of inter - professional learning in health professional education. It is suggested that multi disciplinary team meetings could, theoretically, present an ideal format for implementing practice based inter professional learning whilst striving for a 'joined up' approach to patient care. This paper presents the findings from an inter-professional pilot study undertaken on 3 rehabilitation wards where this idea was tested. Over a period of a week a multi-professional group of students, took joint responsibility for the care of a named patient. The students presented this patient case at the end of the week, in a student led multi-disciplinary team meeting, observed by 'experts' from their own, and other professional groups. During the pilot week the students were encouraged to meet as a team on a daily basis to enable them to reflect on their input to date and to plan for the coming day. In between these meetings the students undertook their usual work, so that the week resembled as closely as possible each students normal working environment. The authors will present quantitative pre and post pilot evaluation data collected from the pilot and control wards. Qualitative data collected from students and 'experts' involved in the pilot study will also be presented. Both the strengths and weakness of this approach will be discussed, in addition to ideas for future development of this model.

Students' views of interprofessional learning in a simulated clinical environment

Keywords: *interprofessional learning nurses doctors simulated practice*

Authors: *Mole, L. School of Nursing and Midwifery Stewart, C. Medical School Benuie, S. School of Nursing and Midwifery Ker, J. Medical School Gray, E. School of Nursing and Midwifery Ambrose, L. Medical School*

Institution: *University of Dundee Faculty of Medicine, Dentistry and Nursing*

Summary: ABSTRACT 255 words A major challenge for health care education is to prepare different professional groups to work together in a cooperative and collaborative manner. Another challenge is ensuring the content of interprofessional learning is intellectually satisfying and relevant to daily work (Koeppel 1995) thus allowing students to identify the essential elements of effective multidisciplinary working and respond to them. A simulated ward exercise designed to advance interprofessional learning between undergraduate medical and nursing students in the Faculty of Medicine, Dentistry and Nursing, University of Dundee occurs annually. Within a clinical skills' teaching facility students participate in a purposely-designed simulated ward exercise that focuses around clinically relevant scenarios requiring the efficient interaction of student doctors and nurses. After an introductory explanation and hand-over, students organise themselves into teams for managing patient care for a stated period, and then hand them back at the end of their "shift". This poster reports the results of student responses to two structured evaluation questionnaires, one immediately following the exercise and the second after a period of reflection to ascertain their views on their participation and the relevance to

their professional learning. The results demonstrate that a safe first experience of functioning independently as an interprofessional team in realistic operational ward procedures is provided. The results also demonstrate that the complex nature of the exercise prevents students from specifically identifying what they have learnt although the majority agree that the experience is not a waste of time and should be repeated at least annually throughout their individual academic programmes.

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KER, J, MOLE, L and BRADLEY, P. Early introduction to inter-professional learning: a simulated ward environment. *Medical Education*. 2003 (37) 248-55.

Developing Clinical Teachers at Senior House Officer (SHO) Grade

Keywords: *Teachers, Junior Doctors, Career Development.*

Authors: *Ron, O. Baker, E. Jogevaran, H. Ramachandran, N. Nunn, L. Knowles, J. Harland, C. McCrorie, P.*

Institution: *St George's Hospital Medical School, London, UK.*

Summary: BACKGROUND Greater numbers of medical students are needed in UK to meet future workforce needs of the NHS1. Increased clinical learning requirements for medical students2 have coincided with reduction of hours worked by senior doctors under the European Working Time Directive.

AIMS To develop Clinical Teaching Fellow (CTF) posts at SHO grade with dedicated responsibility for clinical teaching.

METHODS In 2003 four CTFs were appointed for one year. 6 months after appointment, role development was evaluated by questionnaire.

RESULTS Four CTFs spent between 18-21 hours per week on clinical teaching. Teaching activities most commonly included bedside teaching, small group tutorials, clinical skills, course planning, facilitating PBL and student assessment. All roles included training for teaching through participation in a validated post-graduate teaching certificate and personal and professional development including career relevant clinical work and participation in medical school planning committees.

DISCUSSION Clinical teaching of medical students in the UK has traditionally been the remit of hospital consultants and delegated only informally to junior doctors. CTF roles ensure formal delivery of large amounts of clinical teaching by junior doctors, as well as allowing them to be trained in medical education. It is not known whether teaching by junior doctors is comparable in standard to that delivered by consultants. This will be evaluated in future studies.

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2. GMC. Tomorrow's Doctors. Recommendations on Undergraduate Medical Education. 2003

Clinical Confidence and Competence how is it best achieved in a four year graduate entry course?

Keywords: *Integrated clinical skills, Graduate entry, clinical confidence*

Authors: *Hayes K, Hall A, Baker E, McCrorie P.*

Institution: *St George's Hospital Medical School Cranmer Terrace SW17 0RE*

Summary: Our institution has parallel 5-year undergraduate (UG) and 4-year graduate entry (GEP) curricula. The UG curriculum is delivered in a relatively traditional way, with limited

patient contact during the first two years. The GEP course is delivered using weekly problem-based learning (PBL) cases. All learning through the week relates to the context of the weeks case and fully integrates clinical skills throughout the first two years. Central to the process is re-visitation of material through spiral learning. Data from students from both curricula show that GEP students were less anxious and more prepared than their UG colleagues before starting full-time clinical studies in year three. Qualitative and quantitative analysis showed that this was explained not so much by their graduation as by the different ways in which learning is delivered on the two courses. How does the GEP curriculum differ?

1. Clinical and communication skills are fully integrated into the curriculum, from day one.
2. The students have regular observed practice with both simulated and real patients, with contemporaneous feedback.
3. Regular self-directed clinical clerking on the wards allows students to practice history-taking, examination and note-taking.
4. From Term 4, students are encouraged as part of their clerking to start constructing differential diagnoses, problem lists, acute and long term management plans, reflecting their PBL process. A fully integrated clinical and communication skills programme from the outset, supported by a clinically oriented PBL curriculum and regular skills assessment, seems significantly to improve clinical confidence in GEP students compared with undergraduates.

Challenges and excitements of facilitators - our story

Keywords: *Experiential learning, diversity, challenges, personal growth, professional development*

Authors: *Faris, G. Olckers, L. Mayers, P. Acknowledgement: Gibbs, T*

Institution: *University of Cape Town*

Summary: The University of Cape Town (UCT) Faculty of Health Sciences curricula has been undergoing major changes in the past few years. This transformation is in keeping with global trends and reflects a change in focus with the Faculty adopting the Primary Health Care (PHC) philosophy as its basic tenant. The educational approach has moved towards student-centred, small group learning. The emphasis of much of the staff training has therefore shifted to one of enabling: 'staff to change from a didactic method of teaching and learning, to one based on the principles of adult education.' (Staff development and training document 2002:1). The story of the excitements and concerns that evolved during a focus group of facilitators from the courses Becoming a Professional (BP) and Becoming a Health Professional (BHP) in 2003 will be presented. The research project attempted to evaluate the perceptions of the facilitators with regard to the educational approaches (participative and experiential) used in these courses. The findings conclude that this diverse group of participants displayed rich insights into their interpretations of the educational approaches used in these courses. Despite this, a need was identified to have a shared understanding of a theory that is common to all. The richness of the courses presented, the transformation of the students, the stimulating facilitator training and the diversity of the team of facilitators makes this a unique story. It is a story of challenge embraced through reflective practice that in return brings growth, both personally and professionally to all concerned.

Exploration of a process of guided reflection for small-group, practice-based reflective learning

Keywords: *Reflection, CME, Practice-based learning*

Authors: *Armson, H. Elmslie, T. Wakefield, J.*

Institution: *University of Calgary University of Ottawa McMaster University. The Foundation for Medical Practice Education*

Summary: The Practice-Based Small-Group Learning Program includes over 3000 family physicians meeting on a regular basis, in small groups of 6-10 with a trained peer facilitator using evidence-based materials. After the group discussion, to encourage and capture practice change, facilitators complete a reflective log sheet. This qualitative study explored effective processes for practice-based reflective learning; the types of clinical changes reported and the process of log sheet completion. A random sample of log sheets on 3 topic areas were analyzed, followed by semi-structured interviews of a purposive sample of facilitators. The three researchers independently coded the initial interviews and a coding guide was developed for use in coding subsequent interviews. As new themes develop, they will be added to the coding guide. Preliminary results demonstrated that 86% of groups submitted completed log sheets and the majority commit to changes in practice for the topics discussed. A number of strategies were identified that facilitators saw as contributing to the decision-to-change, subsequent practice implementation and maintenance of change:

1. Increased awareness of recommendations
2. Peer group consensus & differing viewpoints
3. Discussion of potential barriers
4. Help in applying recommendations to individual patients
5. Use of practice aids
6. Patient stimulated recall
7. Reinforcing strategies

The data analysis will be completed prior to the conference leading to further suggestions for enhancing reflection and practice change.

Development of a model of Clinical Problem Based Learning and assessment of key components

Keywords: *PBL, clinical teaching,*

Authors: *Derek Macallan Andy Kent Emma Baker Penny Neild Kevin Hayes Jonathan Round Sandra Bailey Peter McCrorie*

Institution: *St George's Hospital Medical School*

Summary: Background Problem-based learning (PBL) is widely used as clinically-based teaching in the early years of the medical curriculum. It often relies on paper cases and may be conducted away from the clinical setting. As part of an accelerated (4-year) Graduate-entry Programme (GEP), we developed a model of PBL, "Clinical problem-based learning" (CPBL), based around real patient encounters, which extends PBL into the ward environment in the third year of the curriculum.

Method. Two tutorials are held within one week. In the first, the "lead" student presents the case. This is followed by generation of diagnostic hypotheses and learning objectives. This focuses on diagnostic discriminatory features of history-taking and examination; the tutor is predominantly facilitative. In the second session, learning objectives are reviewed and the emphasis shifts to management skills, the tutor taking a more expert role. Curriculum coverage is achieved by a schedule of broad indicative case-types. **Evaluation.** CPBL has been employed in this form for two years in our GEP, initially in General Medicine / Surgery, but latterly, in adapted form in Paediatrics, Obstetrics / Gynaecology and Psychiatry. Evaluation has been by semi-quantitative feedback forms and focus groups. Key features leading to perceived success include appropriate patient selection, availability of an

"expert" tutor for the second session and enthusiastic student participation. Limiting factors have been rapid patient-throughput and timetabling difficulties.

Comment. CPBL initially appears a useful tool to extend PBL into teaching in a ward-based environment in later years of the curriculum although longer-term evaluation will be required.

Evidence-based and narrative based medicine - bedfellows in medical education? - To teach when, to teach how?

Keywords: *evidence-based-medicine, narrative based medicine, problem based learning, 1st year students*

Authors: *Pelz, Joerg & Kube, Peter*

Institution: *Charite - Universitaetsmedizin Berlin (Germany), Reformstudiengang Medizin*

Summary: Knowledge of the principles of evidence based medicine is a prerequisite for every student of medicine these days, since EBM has become a major doctrine how to practice medicine. EBM claims to be the integration of - best research evidence [scientific knowledge-base] - with local expertise [physician's individual knowledge base] - and patients' values [particularly of the patient at issue]. Thus EBM inherently possesses a suitability problem: the applicability of general research evidence to the individual case at issue. This particular patient is the focus of narrative based medicine. He forms the basis for much of medical education and for the identification of problems to which research (methodology and results) will be applied. Taking the patient's history and trying to understand the narrative of his illness as part of the story of his life offers room for approaching the person behind the illness holistically and provides additional options for diagnosis and therapy. Within the 'Scientific Research Methods' module of the 5-year PBL-curriculum of the Reformstudiengang Medizin Berlin a course was developed for 2nd semester students. With main focus on the PBL-case of the week each lesson has a tripartite schedule. One third being devoted to the practice of EBM in relation to the case at issue, one third to the narrative of a related patient and the final section to discuss advantages and limitations of both methods. Content and evaluation of this course will be shown - take home message: teach both, teach early in the curriculum.

Effective feedback: tutor training and student expectations

Keywords: *faculty development workshop, tutor performance, tutor training, giving feedback, problem-based-learning (PBL)*

Authors: *Anne Baroffio, Arnaud Perrier and Nu Viet Vu*

Institution: *Unit for Development and Research in Medical Education, University of Geneva Faculty of Medicine, Geneva, Switzerland*

Summary: Introduction: Giving effective feedback is a difficult competency which is commonly not well evaluated by the students. We designed a workshop to train tutors in providing effective feedback to students. It used a reflective approach to assist tutors in rethinking their role as a coach and in identifying that providing feedback is an essential step of the problem-based tutoring process. It also used a situation-based approach to help faculty developing strategies on how to give feedback in various tutorial situations. This study evaluates the impact of the workshop on tutors' ability to give feedback and the type of feedback provided to students.

Methods: Criteria to evaluate the workshop effectiveness were: tutors' evaluation of the workshop and self-assessments of their feedback strategies, students' ratings of tutor performance and their indication of the type of feedback received or not received from the tutors.

Results: Tutors judged the workshop helpful in understanding the goal of feedback in the tutorial process and developing new strategies. After the workshop, 38% of the tutors self-assessed as modifying their conception of feedback, 54% as providing better and more constructive feedback, and 21% as testing new strategies. From the students' ratings and comments, tutors with low pre-workshop ratings improved their ability to give feedback. Their feedback was focused on the content (60%), the tutorial process (20%) and group functioning (20%). However, students' expectations indicated that they wished more feedback on the content. Conclusion: Our workshop positively influenced the tutors' perception of feedback, increased their repertoires of strategies and improved their performance. However, our study raised a possible discrepancy between students' and tutors' expectations of feedback.

An Orientation Workshop to Faculty

Keywords *teachers training, faculty development, orientation*

Authors: Weinreb, B.

Institution: Faculty of Health Sciences, Ben Gurion Univ., Israel

Summary: An Orientation Workshop to Faculty B. Weinreb, A. Katz, B. Gvili, C. Margolis As part of the teachers training program within the Faculty of Health Sciences at the Ben Gurion University in Beer Sheva, Israel, an orientation workshop was designed. Scope

- Provide info regarding faculty's environment, processes, administration and procedures.
- Overview of basic topics in medical education (teaching and assessment).
- Receive feedback from new teachers regarding their expectations from the faculty and the way they perceive their role.
- Establish an open dialog between teachers and faculty management.

Methods

- Project team reviewed the content and process of the workshop.
- The format selected was a 3 days retreat at a peripheral resort.
- The sessions' format was a combination of few lectures, open discussions, exercises, role playing and simulations.
- The evaluation tool included :
 - logistic evaluation
 - content evaluation of each topic (covering both quality of the presentation and relevance to participants)
 - self-evaluation of the attendees with respect to the proficiency for each topic presented; pre and post workshop, 3 and 6 months post-workshop. 3 workshops were conducted with 30 attendees in each workshop. The topics selected proved relevant to the audience, the evaluation methods proved efficient and provided data for relevant changes within the program. Data showed improvement with respect to micro-teaching and administrative topics between pre and post workshop evaluations. It seems that the format is very good and the workshop is highly appreciated by the faculty members.

The Dialogic Index: A tool to help train physicians to discuss treatments and medications during clinical encounters

Keywords *Doctor-patient communication; treatment discussions, medications, communication skills learning*

Authors: Richard, C., Lussier, M.T., Monette, C., Laprise, R.

Institution: Université de Montréal

Summary: Background: Research results have consistently shown that patient compliance with treatment recommendations often does not reach the desired level to derive any appreciable benefit from the treatments offered. Observational data have

also consistently identified the limited scope of discussions of treatments within the context of the consultation. Moreover shared decision-making, based on information exchange about treatments and patient participation, is now advocated as the ideal in clinical decision-making. These data suggest specific areas for improvement in physicians' communication about treatments and medications.

Purpose: To develop an educational project which aims specifically at helping educators: 1) assess specific medical trainees' communication deficiencies in discussing treatments, in particular about medications; 2) focus on the specific communication skills required to achieve a process of shared treatment decision-making in clinical practice.

Description of educational project: This project builds on two concepts recently derived from our research data on discussions of ten important themes related to medications, during primary care encounters: the "dialogic index" which measures the extent to which the physician engages with the patient in a treatment dialogue and the "preponderance of initiative index" which identifies to what extent the physician opens the discussion of a given theme. A specific measure has been developed for both of these concepts allowing for constructive, descriptive and precise feedback to trainees on how they discuss medications with their patients. We shall discuss how these innovative concepts can be used in small group teaching environments as well as during individual supervision.

Reflecting inter-professionalism in a seminar of medical ethics

Keywords: *interprofessional education, medical ethics, professionalism, case-studies*

Authors: Neitzke, G.

Institution: Hannover Medical School

Summary: At Hannover Medical School we have been performing interprofessional ethics seminars for six semesters.

Small group seminars of 10 medical and 10 nursing students take place for a total of 8 hours each. One of the major teaching aims is to support the participants develop and reflect upon their own understanding of professionalism and inter-professionalism. Seminar setting: The seminar is based on a real case. The students are asked to solve several ethically problematic situations of the case in role-plays or small-group-discussions. Moral challenges, such as truth-telling, informed consent, or withdrawal of therapy, are discussed and the professional opinions are exchanged. We intend to foster medical and nursing students to sharpen their perception of their own moral, professional skills and duties, and of those of the other professions on the ward. This may contribute to the development of professionalism. The respect of the other profession's views and attitudes in the teaching session is used for role-modelling of both professions. Examples will be given, how issues of interprofessionalism can be addressed directly. The seminar is continuously evaluated. Data of the evaluation will be given. The opportunities and disadvantages of this approach to multi-professional teaching and learning will be discussed.

Scheme-inductive reasoning is associated with increase odds of diagnostic success in both experts and novices whereas non-analytical strategies are associated with reduced odds of success in novices

Keywords: *Diagnostic reasoning strategy*

Authors: McLaughlin K, Sylvain Coderre, Garth Mortis, Henry Mandin.

Institution: University of Calgary

Summary: Background. Some physicians appear 'better' diagnosticians than others and each physician has areas of relative strength

and weakness. The explanation for inter- and intra-physician variability is unclear. The objective of this study was to identify variables associated with diagnostic success in novices and experts. Method. This was a cross-sectional study of novices and experts in four clinical presentations: hyponatremia; hyperkalemia; metabolic acidosis; and metabolic alkalosis. The dependent variable was diagnostic success on problem-solving questions. Independent variables were: knowledge structure (determined by concept sorting); diagnostic reasoning strategy (determined by post-hoc think aloud); clinical presentation; and novice/expert status. Data were analyzed using multiple logistic regression. Results. Thirteen first-year medical students and 19 nephrologists participated. The use of diagnostic reasoning strategies did not differ between experts and novices. There was an interaction between novice/expert status and the effect of non-analytical strategies (NAS) on the odds of diagnostic success. The odds of diagnostic success for experts using NAS were not different from other strategies whereas novices using NAS had significantly lower odds of diagnostic success compared to other strategies (OR 0.11. P = 0.013). Two other variables influenced the odds of diagnostic success: the domain of hyperkalemia (OR 0.21. P = 0.007) and use of scheme-inductive reasoning (SIR, OR 13.7. P = 0.001). Conclusions. Novices and experts use the same diagnostic reasoning strategies. SIR increases odds of diagnostic success in both experts and novices. NAS are successful when used by experts but are associated with reduced odds of diagnostic success when used by novices.

Rolling Cases – Months of Follow-up in a Single Learning Experience

Keywords: *Rolling Case, condensed case, Standardized Patients, small group learning,*

Authors: *MA Matar, B Weinreb, R Umansky*

Institution: *Faculty of Health Sciences, Ben Gurion Univ., Israel*

Summary: Aim: To enable students in their Psychiatry Clerkship to be exposed to common clinical issues involved in the longer-term follow-up in small groups.

Method: A) Case Development - Experienced Standardized Patients (SP's) are provided with detailed scripts, reflecting the patient's history, personality and illness experience, ie the "flip-side" of a case-summary from the physician's point of view.

The case is tailored to arouse discussion of important clinical issues, often difficult to demonstrate in the ward, e.g. medication policy and the desire for pregnancy, revocation or reinstatement of a driving license. SP-training focuses on the character of the illness in this specific personality, to enable in-character improvisation. B) "Rolling" the case – the SP performs 3-5 15-20-minute scenarios. They are interviewed by successive students at different stages of the illness process. In between the scenes the tutor gives feedback on the interview and raises issues for discussion. Usually the SP is asked to give feedback from the client's point of view at the end of the case. The day includes 2-3 cases, each spanning about 2 hours in groups of 5-8 students.

Discussion: Four years' experience with the method will be presented. We shall discuss future directions, the pro's and con's of the method for fields other than psychiatry. This is especially important in light of the shift towards ambulatory care, away from the teaching hospitals' wards.

What is the Role of Poster Presentations in Promoting Scholarship Among Internal Medicine Trainees?

Keywords: *Scholarship, Poster Presentation, Evaluation, Survey Tool, Scientific Meeting*

Authors: *Christoph Eggert, MD Cassie Kennedy, MD Furman McDonald, MD Joseph Kolars, MD*

Institution: *Mayo Clinic Rochester, MN, USA*

Summary: Background: Learners are encouraged, if not required, to participate in scholarship during their post-graduate medical training. Often, this work will result in a poster-presentation at a scientific meeting. We sought to study the perceived benefits of this scholarly activity by surveying members of four internal medicine residency programs in the U.S.

Methods: An 8-item survey to measure the perceived benefits of submitting an abstract, constructing a poster, and presenting the work at a regional meeting of the American College of Physicians was completed by 87 internal medicine trainees in 2003.

Results: On average, faculty spent 100 minutes working with trainees on their abstract submission and typically made 1-4 changes to the original draft. Half of the faculty co-authors assisted with poster preparation. While in attendance at their poster for an average of 70 minutes (range 20-150 minutes), residents averaged 3-4 visitors. Half of these visitors provided motivating, constructive feedback, which was of variable usefulness to the residents. Most residents agreed or strongly agreed that the preparation and presentation of the poster was a useful scholarly exercise.

Conclusions: Submission of a poster to a scientific meeting was perceived to be a useful scholarly exercise by internal medicine trainees. However, the amount of scholarly interchange during the poster presentation and the degree of faculty mentorship was highly variable. This information will be used to guide faculty development and to optimize the use of poster sessions at scientific meetings to enhance the level of scholarly interchange for residents.

Re-inventing the wheel: Introducing Teaching and Learning about Patient Centred Medicine in a medical school in Chile

Keywords: *Communication Skills, Patient Centred Medicine, Developing Countries*

Authors: *Moore, P.*

Institution: *Centro De Formacion Docentes Clinicos P. Universidad Catolica de Chile*

Summary: The Doctor-Patient Relationship and Communication Skills are seen as central in the medical curriculum in developed countries. There is strong evidence that a patient centred approach improves diagnostic and decision-making skills and both doctor and patient satisfaction. However in Chile these concepts are novel and not necessarily acceptable. We started to introduce these concepts in 1997, when J. Bermejo, a Spanish priest, visited our university. There was initial enthusiasm, which weaned rapidly. We learnt the hard way that:

1. Communication in the doctor-patient relationship is highly cultural. We need to teach and research what is most appropriate for Chile
2. Teaching about the doctor-patient relationship must be closely related to clinical teaching, so clinical faculty must not only know the concepts, but use them in their modelling
3. Innovative approaches are required to teach this area well; faculty must understand how to make the most of role-play and simulated patients.
4. Evaluation of communication skills is fraught with problems, but is essential Today we have a communication theme running from the second to final year in the undergraduate curriculum,

courses in several post-graduate training schemes, courses for faculty; Facilities for indirect observation of the medical interview; The use of simulated patients at many different levels of teaching However, there are still many faculty sceptical of Patient Centred Medicine and we need to continue research into the doctor-patient relationship in a Latin-American culture

Does guided reflection in PBL courses foster moral judgment competence?

Keywords: *guided reflection, PBL and moral competence*

Authors: *Hambleton-Fuentes, A.*

Institution: *Tecnológico de Monterrey*

Summary: Does guided reflection in PBL courses foster moral judgment competence? Araceli Hambleton-Fuentes, MD and David Cantú-de León, MD.

Abstract. Guide reflection is the availability of professors for advice and help when the demanding role which the student may not be able to solve for him or herself. Moral judgment competence has been defined by Kohlberg as the capacity to make decisions and judgments which are moral (i.e.; based on internal principles) and to act in accordance with such judgments.

2 A pilot study was performed at the School of Medicine at the Tecnológico de Monterrey in order to evaluate if does guided reflection in PBL courses foster moral judgment competence.

Forty students were enrolled in the study. The C-index of the Moral Judgment Test by Lind was developed for this purpose before and after guided reflection. Differences were evaluated by Mann-Whitney test; $p < 0.05$ was considered statistically significant. Differences in favor of guided reflection were found. Detailed results of the schemes used will be presented.

1. Lind, Georg. Scoring of the Moral Judgment Test. 1999

2. Barger, Robert Etapas del Desarrollo Moral. 2000

Communication Skills Training for Specialty Residents: Implementing a resident-run program

Keywords: *residency, communication skills, curriculum, implementation*

Authors: *Cooke, L.*

Institution: *University of Calgary*

Summary: Background: The medical licensing body in Canada has mandated communication skills training as an integral part of specialty training.

Purpose: This paper describes the design, implementation, and results of a communication initiative undertaken in the University of Calgary's Neurology Residency Program in response to that mandate.

Methods: Supported by faculty, a senior neurology resident active in medical education spearheaded this project. Data was drawn from needs assessments, participant feedback, faculty surveys, and semi-structured interviews. Critical environmental factors that facilitated implementation of this communication skills curriculum are described. In addition, we present the curriculum design (seminars, OSCEs, specialty-oriented simulated patients, improvisational sessions regarding current communication challenges participants identify, and video-reviews of staff behaviours), and perceptions of participants (9) and faculty.

Results: The implementation of this program was highly successful. All sessions were well-attended and residents participated enthusiastically. Residents became gradually more familiar with the Calgary-Cambridge guides, and began to discuss communication challenges in terms of specific communication skills, rather than in terms specific to a given interaction or content issue. Residents acknowledged giving more thought to specific communication skills in day-to-day practice and most stated they would be willing to preceptor future sessions. All residents have

expressed the desire for the program to continue indefinitely, and most wanted more time for future sessions. Results of a pre and post-intervention OSCE will be presented.

Conclusion: It is feasible to implement a highly successful and relevant communication curriculum into a specialty program given the support of key players in the program environment.

A model for Faculty Development - experiences from a pilot study

Keywords: *Faculty development, associate professors*

Authors: *Kayser, L., Sander, B., Kristensen, B.T.,*

Netterstrøm, I.

Institution: *Center of Health Science Education, University of Copenhagen, Denmark*

Summary: In order to expand the educational and personal qualifications of members of the Faculty of Health Sciences, we have created a strategic and systematic Faculty Development Plan. Post doctors and teaching assistants are offered a three day hands-on based program and assistant professors are offered a one year program designed to develop skills and knowledge necessary for their new tasks concerning teaching. Now, we have designed a program for associate professors. In this program, we focus on development of personal skills and qualifications, which are required in addition to competencies in teaching and research. The program is based upon participant's experiences and reflections in relation to their role in the University. The program consists of four sessions, each consisting of two days course, followed by a practical exercise and a half day to report the results from the session. The subject of the sessions are; "The identity of an (associate) professor at the Faculty of Health Sciences", "Life of and conflicts in groups", "Knowledge – how to acquire and distribute" and "The future challenges of the health professionals". The four sessions are followed by a project where the participants work with a subject related to the sessions for a three month period. In april 2003, the program was launched with seven participants ending march 2004. The program has been evaluated by written feedback, interviews and by the results of the project reports. Based on these experiences, we now continue to develop the program, which will be offered again late 2004.

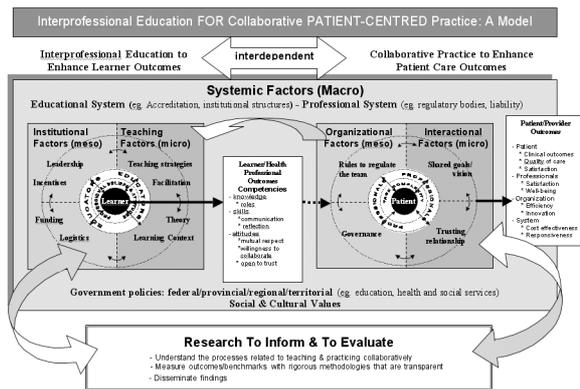
Interprofessional Education for Collaborative patient-centered practice: A Conceptual Model for Change

Keywords: *interprofessional education, competencies, curricular reform, health policy*

Authors: *Oandasan, Ivy D'Amour Danielle*

Institution: *University of Toronto. Université de Montreal*

Summary: Interprofessional Education (IPE) is being adopted in many countries across the world. The degree to which change has been adopted differs amongst countries. (Barr, 200) In Canada, momentum is rising to promote a "Collaborative Patient-Centered Approach to Care" requiring a new direction for professional education and practice. To move this agenda forward in Canada, a research team was asked to conduct a literature review and environmental scan on Interprofessional Education and Collaborative Patient Centred Care. **Methods:** Systematic literature reviews were conducted on: the evidence of IPE and Collaborative Practice (CP) interventions; key elements of CP; key elements of IPE; cultural considerations; health policy considerations; and change management theory. The environmental scan included twelve in-depth interviews with key informants in IPE and CP in Canada and abroad and an On-line Survey sent to 550 individuals with 317 respondents (57% response rate) **Findings:** Based on the literature review and the environmental scan, an evidence based conceptual model was developed revealing the interdependency of IPE & CP, highlighting the micro,



D'Amour & Oandasan, 2004

meso and macro level factors which determine whether IPE and Collaborative Practice can be instituted and a description of the role of research to inform and evaluate outcomes or benchmarks with are urgently needed to provide evidence for the role of IPE in improving learner competencies and the role of CP in improving patient care outcomes. Conclusion: The proposed framework can help educators, practitioners, researchers, and policy-makers understand the complexities that must be addressed if IPE and CP are to be advanced.

References: Barr, H (2000) Cultivating Interprofessional Education Worldwide. www.caipe.org.uk/documents/collabww.pdf

Open format PBL is like a box of chocolates - You never know what you'll get – really?

Keywords: PBL open format, content analysis

Authors: Pelz, J.

Institution: Reformstudiengang, Charité Universitaetsmedizin Berlin

Summary: PBL formats differ between curricula for example in the degree of freedom of self-directed learning ranging from guided PBL to an open format. In the reformed curriculum in Berlin papercases are based on complex real patient casuistics from the 1st to the 10th semester. Students receive a handout with a trigger situation for group discussion. Additional information about the patient's history, physical and technical examination, diagnoses and treatment is provided to the tutor, who is free to pass it down to the students during their group discussion in his discretion. His task is rather to moderate the discussion than to guide the learning issues of the students. They are free to decide which aspects of the case at hand (basic sciences, clinical, epidemiological,...) they want to deal with. This format arouses suspicion of arbitrariness and randomness while it is intended to help students to discover their learning needs. An analysis was performed for all available sessions of all PBL groups of five different semesters during the winter term covering the content of learning issues and the time devoted to the discussion of different learning objectives during the second PBL session. Differences were detected for the main focus between different groups of the same semester, as well as for the the amount of basic science and clinical issues between the different semesters. Nevertheless the student generated learning issues covered a high percentage of the faculty intended learning objectives thus demonstrating that an open PBL format is not counterproductive to relevance.

Do Scores on the Self-Directed Learning Readiness Scale Impact on Examination Performance?

Keywords: self-directed learning, assessment

Authors: Boohan, M.

Institution: Queen's University Belfast

Summary: Current trends in undergraduate medical education encourage curriculum planners to provide learners with opportunities for self-directed learning. However, to date there is very little information available about the proclivity of medical school entrants towards self-directed learning. This paper describes a study designed to assess students readiness for self-directed learning on admission to medical school. Enthusiasm for self-directed learning was assessed using the Self-Directed Learning Readiness Scale (SDLRS) Guglielmino (1977). The test scores were used to examine the relationship between readiness for self-directed learning and examination results for the three modules completed by students during the first semester at University. Each module requires students to engage in a significant amount of self-directed learning. One hundred and seventy first year medical students participated in the study. Total scores on the SDLRS ranged from 93 to 258 (mean 192, SD 23.78). The average score for adults completing the questionnaire is 214, SD 25.59. No statistically significant results were found between SDLRS scores and examination results. While the average score of medical students on the SDLRS was lower than that of the average for the adult population, the method of curriculum delivery does not appear to impact on student examination performance. This paper will explore the reasons for this and will focus on the appropriateness of the methods used to assess students on completion of each module.

Reference: Guglielmino, L. M. (1977). Development of the self-directed learning readiness scale. (Doctoral dissertation, University of Georgia, 1977). Dissertation Abstracts International, 38, 6467A.

Putting it together: Students' Understanding of the Curriculum

Keywords: PBL curriculum, learning, course structure

Authors: Dodds, A., Mosepele, M., Evans, G., Elliott, S and Lawrence J.A.

Institution: University of Melbourne

Summary: Curriculum designers work from a clear idea of how all the parts, such as lectures, tutorials and practical classes fit together and serve the overall purpose of giving students a framework for learning. But do students share their vision, and how do students use the curriculum in their independent study? This paper reports a study of students' understanding of a Problem-Based Learning medical curriculum at the University of Melbourne. Thirty second and third year medical students created a course structure map using an interactive on-line computer program. Students could drag curriculum elements to designated Central or Peripheral areas on the screen and demonstrate the connections between the elements using uni- or bi-directional arrows. The same students participated in a semi-structured interview of the learning strategies they used when studying alone between tutorials. Students saw PBL tutorials, Lectures and Independent Study as central and linked to each other. 43% of the sample saw lectures as influencing PBL tutorials, but only 7% thought PBL influenced lectures. Few students saw Anatomy, or clinical skills tutorials, as linked to the central elements of the curriculum. The interview transcripts were analysed using an 'ideal' study strategy template generated from the published principles of PBL. Most students recognized the need to engage in independent investigation of learning issues generated in tutorials, but some relied entirely on lectures to provide direction and study resources. Discussion will focus on the need for curriculum designers to make their aims explicit to students.

A multi/cross-disciplinary workshop for professional students in the Faculty of Health Sciences and the Faculty of Law

Keywords: domestic violence, medical curriculum, workshop

Authors: Andre Tan, MD, FRCSC; Megan Gerber*, MD, MPH; Elizabeth Kauffmann, RN, MEd; Wendy Pentland, PhD; Nicholas Bala, LLB, LLM.

Institution: Queen's University * Harvard School of Public Health

Summary: Domestic violence is the most common but least reported crime in Canada with approximately one million women battered each year. Many of these women present to a physician with related injuries. Others are seen for routine care, prenatal care or for the care of their children. This regular contact places physicians in a unique position to screen for and manage domestic violence. However, screening for abuse is extremely rare. If abuse is disclosed, many physicians do not know how or do not have the resources to deal with this issue. There are numerous barriers to discussing and managing abuse with patients. One that has been identified is the lack of education regarding domestic violence within the medical curriculum. This presentation intends to introduce a unique and innovative interactive workshop designed and implemented at Queen's University, Kingston, Ontario, Canada. Using team-learning concept, the workshop trains students from the Schools of Medicine, Nursing, Rehabilitation Therapy (Physical and Occupational) and Law in a multi/cross-disciplinary setting since 1998. The workshop utilizes the expertise of faculty members from the community, various government agencies, and several university departments. Teaching format of the workshop includes didactic presentations from experts and front-line workers, video presentations, and interactive small group discussions. This multi/cross-disciplinary approach more accurately models the "real life" complicated clinical/professional practice in which professionals from various agencies and clinical departments work together as team to assist victims of partner violence. We will also present pre/post-tests results of the students as well as evaluation of the workshop.

Effectiveness of a Course Management System in Delivering an Integrated Medical School Curriculum

Keywords: Web Based Instruction, On-line learning environments, Course Management Systems

Authors: Relan, A.

Institution: David Geffen School of Medicine at UCLA

Summary: Background: Database driven, commercial "course management systems (CMS's)" are in vogue for the purpose of delivering medical curricula on account of their flexible, dynamic and organizational capacities. However, the task of selecting a CMS for specific institutional needs is complex and daunting, involving high stakes decision making pedagogically and financially. In this case study, we describe the selection, implementation and evaluation of a CMS in a medical school launching a problem centered, interdisciplinary curriculum.

Methods: An extensive evaluation of prominent CMS's was conducted using pedagogical, technical and financial criteria. Group and individual training was organized for students, staff and faculty on the selected CMS. New functionalities were added to customize the CMS. Instructional strategies rooted in cognitive theory were employed, including weekly formative assessments with individualized feedback, problem based learning, clear course organization and asynchronous scaffolding. 110 students- 80% of the class- voluntarily participated in a 44 item survey administered at the end of Block 1, to elicit their perceptions of the CMS for pedagogical benefit.

Results: The overall rating of the CMS over three blocks of imple-

mentation has been 4.5, 4.2 and 4.4 on a Likert scale (5 = most useful to 1 = not at all useful). Students overwhelmingly favored the CMS, rating individualization, engagement, organization and self monitoring capabilities as positive outcomes.

Conclusion: Careful selection, customization and diffusion of a CMS, employing a strong pedagogical framework can successfully deliver complex curricula. A CMS can be an effective tool in promoting favorable perceptions and learning strategies among students.

Professional competencies acquisition in postgraduate training in Family and Community Medicine

Keywords: Professional competencies -Postgraduate medical training - Family and Community Medicine

Authors: Dra. E. Ros

Institution: Escola Universitària d'Infermeria i Fisioteràpia Blanquerna

Summary: The purpose of the study was to analyse and compare tutors and residents perceptions on the acquisition of professional competencies in the postgraduate training within Family and Community Medicine. It combines quantitative and qualitative information. Questionnaires were used to obtain a first opinion from all tutors (n=240) and 3rd - year (R3) residents (n=240) in Catalonia. Later, focus groups were organized to interpret and clarify the data obtained quantitatively. This process was carried out in a parallel way with tutors and residents, ending with a comparison between the groups. Results show that tutors perceptions of the capacitation level in each competency area are either very similar or higher to those of the residents, and generally, quite positive. The most valued competency areas are basic clinical skills, handling abilities, communication and preventive activity. The lower perceptions are community care, teaching and research. Other subjects -instrumental abilities, family care and management aspects- maintain an intermediate position. Regarding to the training model and its contribution to the medical competencies, tutors perceptions are also more positive than the ones from residents. However, data obtained statistically cannot always be subscribed qualitatively. These data report that although skills acquired for the practice of clinical expertise are satisfactory it cannot be said the same for competencies related to family and community care.

What do faculty members need to enhance their

Keywords: faculty development, needs assessment

Authors: Abdulrahman, K.

Institution: King Saud University

Summary: OBJECTIVES: To examine the needs of our faculty members in order to plan an effective faculty development program that will meet their needs.

Methods: Cross sectional survey was undertaken during the months of January and February 2002. A self-administered anonymous questionnaires were distributed to all faculty members. The questionnaire was divided into four parts: demographic characters, teaching skills, student assessment skills, research skills and administrative skills, respectively. Five points likert scale were used to explore their views.

Results: Out of the 200 questionnaires 160 (80%) were returned. Eighty-one percent (81%) were male. Seventy percent (70%) of the respondents were from the clinical sciences. The majority (69%) were involved in administrative responsibilities. Seventy-five percent (75%) had been involved in undergraduate teaching for more than 10 years. The mean distributions of academic working load were as follows: 42% teaching, 31% patient care, 15% research and 12% administration. Most of the faculty members have strongly agreed to participate in courses or workshops

designed to improve their teaching skills, student assessments skills and curriculum development skills (92%, 94% & 92% respectively) Almost all faculties strongly agreed that all newly appointed teaching staff should undertake some formal courses on the principles of Medical Education before any academic responsibilities were appointed. Eighty nine percent (89%) of our faculty agreed and strongly agreed that they were fully capable of identifying and formulating clear and comprehensive questions needed to conduct a research of interest. However, the majority (71%) were dissatisfied with the current rewards for research presentations. Furthermore, 83% were thought that involvement in research activities will not interfere with their teaching abilities. About 87% of faculty suggested that, for all members to attend some formal course or workshop in leadership skills before any administrative appointments. Conclusion: However, the current needs assessment survey emphasized on their needs of continuing faculty development programs.

BMJ - new educational initiatives

Keywords: *Meet The Experts, BMJ, Education*

Authors: *Easton, G.*

Institution: *BMJ (British Medical Journal)*

Summary: An outline of the BMJ's new educational initiatives, including interactive case reports, BMJ Learning, Learning in Practice, Career Focus, and Student BMJ, and a practical guide to our peer review process. An opportunity to exchange ideas, quiz one of the BMJ's editors, and air debate.

Dentist opinions about continuous medical education programmes in Ahvaz, IRAN

Keywords: *CME*

Authors: *Shakurnia, A.*

Institution: *Ahvaz University of Medical Sciences*

Summary: *CME*

Effect of clinical supervision program application on nursing students skill from their viewpoint in Isfahan university of medical sciences in 2001

Keywords: *Clinical Supervision ; Interpersonal Skills ; Professional Skills*

Authors: *Khalifezadeh, A.*

Institution: *Isfahan Medical sciences university.faculty of nursing*

Summary: ABSTRACT clinical supervision is a mechanism supporting both professional and personal development. The main purpose of this study was to evaluate the effect of clinical supervision on nursing students skills such as interpersonal, Professional and communication.

Methods: This is a quasi experimental study and 100 nursing students internship were selected by method of simple sampling and were divided into two case and control groups. For the case groups clinical supervision for two weeks were applied by a staff and an instructor while that for the control groups was a two week nursing practice conducted only by an instructor.

Results: The findings showed the means of interpersonal, Professional and communication skills and total skills from students viewpoint in the case group were statistically significant for pre and post application of clinical supervision but from students viewpoint in the control group they weren't statistically significant for pre and post conducted.

Conclusion: The results of this study indicate that designing teaching clinical courses based on clinical supervision model can promote interpersonal, Professional and communication skills of the nursing students.

Multistage problem-based case discussion (MPCD)

Keywords: *problem-based, clinical reasoning, paper case, case discussion, small group, larg group, multistage*

Authors: *Vagheh Gholami Renani* Vahid Ashoorion* Abbas Esmaeili* Mohammad Dadgostarnia**

Institution: *Research Assistant, ICM office, School of Medicine, Isfahan University of Medical Sciences*

Summary: Purpose: Students are presented with a variety of case formulas to promote the development of clinical reasoning. Methods: 120 medical students were assigned to 18 small groups. After each ICM (Introduction to Clinical Medicine) course, they were given a paper case. A few days later small groups were formed. Students asked tutors some questions to have more history and physical examination data and discussed and developed a differential diagnosis list. Then, all small groups met in a large group session for further discussion. After that back to small groups, students ordered paraclinical tests and they were given the results by tutor. Each group tried to further narrow the differential diagnosis list. Finally, in the large group session a consensus diagnosis was reached after reflective observation. A questionnaire was used before and after intervention. The small group tutor rated students' abilities at the end of first day and last day. Results: The attitude of students about the positive effects of MPCD increased significantly from the first day to the last day ($p < 0.05$). The progress checklist of the students' abilities showed a statistically significant improvement post intervention. Conclusion: Our study suggests that MPCD is an effective way to increase clinical reasoning skills.

A review of the published instruments measuring uncertainty in medical students and physicians

Keywords: *uncertainty, instruments*

Authors: *Ghosh, AK, Beckman TJ, Owan TE, Erwin PJ*

Institution: *Mayo Clinic College of Medicine*

Summary: Uncertainty in clinical decision making causes over treatment and physician anxiety. We sought to review the literature for assessing instruments used to measure uncertainty in medical students and physicians. Studies of interest were limited to original research on quantitative instruments measuring uncertainty in medical professionals. The search strategy included queries in MEDLINE, EMBASE, PsycInfo, Web of Science, checking of reference lists, hand-searching relevant journals and personal communication with experts. Two investigators independently studied the papers and tabulated characteristics of the instrument, number of individuals, medical settings and validation methods. Twenty articles document ten scales and their modifications met the pre-determined eligibility criteria. Evaluations included primary care physicians and medical students in different years of training. Wide ranges in subjects (18 -1496), domains (1- 7), instrument items (2 - 30), and Likert scale (3 - 7) were observed. The most frequent statistical methods were factor analysis and determining internal consistency with Cronbach alpha. The Physician Response to Uncertainty scale (PRU) is the most commonly used instrument in recent studies. Future research should examine the effects of teaching curriculum on tolerance to uncertainty to medical students and physicians.

The Academic Support Programme: an educational intervention to help medical students who are failing academically

Keywords: *An Academic Support Programme*

Authors: *Brown, J., Evans D.E.*

Institution: *Barts & the Royal London School of Medicine & Dentistry*

Summary: The Academic Support Programme (ASP), based at

Barts & the Royal London Medical School provides tailored educational interventions for undergraduate medical students who are struggling or failing academically. The primary focus is to develop students' self directed learning skills & support them in taking responsibility for their learning. The programme focuses on students in their 3rd, 4th and 5th years and offers an 'educational diagnostic' interview with two academic support tutors which looks in depth at problems with learning. Evidence from the programme suggests that causes of academic failure are widespread & are sometimes not academic in nature. A tailored package of academic support is negotiated with the student & a learning contract is agreed. Support to students is carefully evaluated. The ASP also acts as a central liaison point throughout the Medical School and is represented on all major committees. Evidence from the ASP shows that demand is increasing for the service. Our presentation describes this transferable model of academic support, which is of particular importance in the present culture of student progression and widening access.

Targeting Autonomous Learning: New Approach, New Hopes

Keywords: *Autonomous Learning, SGLO*

Authors: *Agarwal A.K., Dadhich A.P.*

Institution: *Christian Medical College and Hospital*

Summary: Background: Learning must take an autonomous mode to become a life-long learner. Therefore, the emphasis of medical education has shifted from "teaching" to "learning" during the last decade. "Spoon-feeding" a student hijacks the privilege of active acquisition of professional expertise. Several new approaches, such as problem based learning, small group learning, computer-assisted learning, etc., have been regarded as student-oriented instructional formats that help the students to develop as future autonomous professionals.

Objective: To cultivate community-oriented clinical competence among students and making them life-long learners.

Methodology: The small group learning by objectives (SGLO) was successfully adopted for the Pharmacology curriculum in the M.B.B.S. course at CMCH, Ludhiana, India. The primary responsibility was given to the students for defining their own needs, valuing cooperative and group interaction to sustain individual learning, and allowing assessment of the process and the outcomes of learning form time to time. The methodology involved introduction to the topic, followed by small group discussion based on the learning objectives.

Results and Conclusion: SGLO- a student-centered mode of learning, yielded higher success rates in the University examinations and was able to motivate the students towards the ultimate objective of attaining Autonomous Mode of Learning.

Investigation of Reliability, Validity and Normality Persian version of The California Critical Thinking Skills Test; Form B (CCTST)

Keywords: *Critical Thinking, Nursing Education,
Nursing students, Reliability, Validity, Normality, CCTST*

Authors: *Khalili, H.*

Institution: *Semnan University of Medical Science*

Summary: The translated CCTST, were given to 405 BSN students of nursing Faculties located in Tehran that were selected in the through stratified random sampling. In order to determine the Face and Content Validity the test was translated and edited by Persian and English language professors and researcher. It was also confirmed by judgments of a panel of medical education experts and psychology professor's. The CCTST Reliability was determined with use of KR-20. The Construct Validity of the test was investigated with Factor Analysis and Internal Consistency

and Group Differences. The test coefficient for Reliability was 0.62. Factor Analysis indicated that CCTST has been formed from 5 factor namely: Analysis, Evaluation, Inference, Inductive and Deductive Reasoning. Internal consistency method showed that all subscales have been positive correlation with total test score. Group differences method between nursing and philosophy students (n=50) indicated that there was meaningful difference between nursing and philosophy students scores (p=0.0001). Scores percentile Norm also showed that percentile of fifty scores related to 11 raw score. The results revealed that the questions test is sufficiently Reliable as a research tool.

The effect of two educational methods, Classic and Critical Thinking Strategies (CTS), on the stable learning of nursing

Keywords: *Critical Thinking, Education, Classic Education,
Stable learning, Nursing students*

Authors: *Khalili.H*, Babamohammadi.H* and Hadji
Aghadjani. S* (MSC) *Members of Faculty in Semnan
University of Medical science*

Institution: *Semnan University of Medical Science*

Summary: This study was performed to assess the effects of two educational methods, classic and CTS, on the stable learning of BSN students. The current experiment is a quasi-experimental study conducted to all of nursery students (n=17) of the 3rd semester of Semnan University of Medical Science. We divided gastrointestinal (GI) disease nursing course into two separate parts consisted of upper GI diseases and lower GI diseases. First part was educated with classic method and second part with CTS. Final test of each part was performed independently one week after the end of each part. In order to assess the stable learning in students, post test of each part was done with an interval of 3 months after the primary test without any preinforming. Data were analyzed using SPSS statistical software. Correlation coefficients between scores obtained by the subjects under study in the primary and secondary exams in CTS and Classical-based courses were 0.856 and 0.787, respectively. Both methods lead to stable learning in nursing students and there was no significant statistical difference between two methods.

Recruiting general practitioners for teaching normal physical examination

Keywords: *Physical examination, medical education, semiology,
General practitioner, small group,*

Authors: *Dadgostar, m. Gholami renani, V. Ashoorion, V.*

Institution: *ICM*

Summary: Introduction: Physical examination skills are one the most essential parts of medical education. Traditionally, faculty members teach practical semiology on patient's bedside. The instructors' lack of time, inconvenience for the patients, students' fear and lack of self confidence for learning physical exam on a real patient, and lack of opportunity to practice the skills under supervision of a mentor lead to incomplete and incoherent education.

Method: The practical semiology classes were restructured in the ICM course, dividing this course in to normal and abnormal history taking and physical examination. General practitioners were recruited for the first part. After selecting GPs based on some criteria, they passed workshops on teaching methods and also CME classes on physical examination. Then they become the tutors of student small groups. The students practiced skills on each other and on models under the supervision of GPs.

Results: Of all students, 85% believed that having GPs teach physical exam is a good choice. For 53 essential physical exam skills, the students who passed practical semiology course with the new method had significantly higher mean scores than those seeing traditional method.

Discussion: Thus, having GPs teach physical examination is a practical and effective approach.

Educating doctors within Primary Care

Keywords: *community based education, vocational training for general practice*

Authors: *John Pitts, MSc(Med Ed) PhD MRCP FRCGP, is Associate Director in Educational Research, NHS (Wessex Deanery) and Honorary Research Fellow, King Alfred's College, Winchester; Robin While, MBBS FRCGP, is Associate Director in Post Graduate General Practice Education, Post Graduate Medical Centre, Royal United Hospital, Combe Park, Bath and Frank Smith, MSc(Med Ed) MRCP FRCGP, is Director in Postgraduate General Practice Education, NHS (Wessex Deanery).*

Institution: *Wessex Deanery, NHS, UK*

Summary: An expansion of general practice training capacity is necessary for creating an increased number of career general practitioners and to provide training attachments for doctors intending to follow a hospital based career. This study investigated non-trainer general practitioners' views on undertaking a training role. About a fifth of these may be seen as potential trainers, and the main obstacles to taking on this role were found to be lack of time and competing practice commitments. Accommodation within existing practice premises was an issue for half. The majority of obstacles are intrinsic to the health care system rather than within individuals, and relate to money, directly or indirectly. Suggestions of how these could be addressed by deaneries include working closely with Primary Care Trusts (PCTs) & Workforce Development Consortia to develop better workforce planning and strategic planning to increase local capacity, and making strong representations of the need for adequate funding to support this.

Epidemiology Teaching: student and tutor perceptions

Keywords *Undergraduate medical education - epidemiology - qualitative study*

Authors: *Mandy Moffat, Hazel K Sinclair, Jennifer A Cleland, W Cairns S Smith, Ross J Taylor*

Institution: *University of Aberdeen*

Summary: Epidemiology is generally considered to be a necessary 'basic science for clinical medicine', but teaching epidemiology to medical undergraduates can be challenging. There is concern that undergraduate medical students in the UK are not exposed to appropriate opportunities to learn and understand the fundamental principles of epidemiology (General Medical Council). In this study we aimed to explore students' and tutors' perceptions of the epidemiology teaching in the first three years of the Aberdeen, UK, medical undergraduate curriculum, with particular reference to the teaching in one strand of the curriculum, the Community Course. This was a qualitative study comprising two focus groups and six individual interviews with quota samples of 4th year medical students, and one focus group with a purposive sample of tutors. Our results indicate that students who need to use epidemiology more often to successfully progress throughout their degree programme are more aware of its relevance. Making epidemiology learning and assessment clinically relevant, and appropriate to the stage in the curriculum and students' level of understanding, is a priority to students and tutors. We should acknowledge that student learning is assessment/examination driven and so formally assess epidemiology throughout the undergraduate course using clinically relevant scenarios. Tutors require explicit training and clinically relevant teaching materials. Tutors require explicit training and clinically relevant teaching materials.

Identifying difficulties and supporting students with academic difficulties

Keywords *undergraduate medical education - supporting failing students - student perceptions - challenges for Faculty*

Authors: *Cleland, J., Chesser, A., Arnold, R.*

Institution: *University of Aberdeen*

Summary: Weak medical students may continue with little guidance or intervention. Sayer et al (Medical Education 2002; 36: 643-650) identified that the key points for supporting students with academic difficulties are to identify reasons, particularly non-academic ones, for poor performance. This qualitative pilot study explores reasons for poor performance in a cohort of 5th year students who failed their final clinical examinations. Six students were interviewed in a focus group, then individually. Interviews were audio-taped and transcripts analysed. Analysis was inductive and based in grounded theory methods. Student records were consulted with the students' consent. Participation was voluntary. Students who failed their final year had usually been experiencing genuine personal difficulties associated with non-academic factors. They had not brought these to the attention of Faculty due to believing that they could cope themselves, asking for support would question their fitness to practice and/or it was not their responsibility to seek help, rather Faculty should have sought them out to offer support. Those students who had been previously contacted by Faculty found it difficult to accept that their concerns were genuine. Students with consistently below average performance and attendance perceived themselves as having no academic difficulties until their final exam. How to we work with students who do not appear to be self reflective? If we take too paternalistic an approach to we run the risk of impeding the development of independent practitioners able to take responsibility for their education as adult learners?

The midwifery students satisfaction from the clinical education guidelines in clinical courses, in Mashad University of Medical sciences 2002-2003

Keywords: *student satisfaction clinical education*

Authors: *Khadijzadeh, T. Salari, P.*

Institution: *School of Nursing and Midwifery*

Summary: This research was conducted to determine the midwifery students satisfaction from the clinical education guidelines in clinical courses, in Mashad University of Medical sciences 2002-2003. 300 student who had clinical courses in obstetrics and gynecology wards in 2 sequential semester were randomly sampled, from Feb2002 till Feb2003. At the end of each semester students' satisfaction from clinical education were assessed by a questionnaire. The clinical education guidelines which were prepared by all of teachers of midwifery courses were presented and administered in 2nd terimester. The content of guidelines include: The course aims and objectives, ward disciplines and students and teachers' tasks, students' evaluation methods, instruments of nursing skill assessment and references. The mean of students satisfaction scores from clinical education was assessed at the end of each course. After administrating of clinical education guideline in 2nd semester, the mean of students satisfaction scores was significantly increased in comparison to past semester ($p=.000$). More students' satisfaction was due to better use of time, learning clinical skills, more use of theoretical knowledge in practice, structured course content, receiving feedback on performance, better understanding of job responsibilities. Most of students had used checklists provided in guidelines for self assessment and assessment of classmates, and believed that the checklists helps them in better learning of clinical skills. The representing printed educational guideline to all students and supervising the process of administrating is suggested.

Comparison of critical thinking skills level between BSN students in first and second university degree, in Semnan University of Medical Science, Iran-Semnan

Keywords: Critical Thinking, Education, Nursing students

Authors: Babamohammadi.H*and Khalili.H*(MSC)

*Members of Faculty in Semnan University of Medical science

Institution: Semnan University of Medical Science

Summary: In this study, we compared the critical thinking skills level of BSN students of first and second degree in Semnan nursing faculty. We examined all students studying for first university degree (n=70) and second degree (n=37) of nursing. We used The California Critical Thinking Skill Test, Form B (CCTST:F B) with 34 multiple choice questions to assess critical thinking skills level in students. Data were analyzed with SPSS-WIN application. Mean scores were 12.34 ± 2.45 for students of first degree of nursing and 11.27 ± 3.10 for students of second degree of nursing which was statistically significant ($p=0.005$). In BSN student of first degree, there were significant differences between mean scores of junior students and senior students ($p=0.0001$) No significant differences was observed between mean scores of first year students and second year students of second university degree of nursing. No correlation was seen between sex or age and mean scores of CCTST. A weak but significant correlation was seen between student averages in previous semesters and their scores in the test ($r=0.31$, $p=0.01$). Our findings showed that students of first degree are superior to students of second degree of nursing in critical thinking skills level.

Case problem based discussion compared with traditional lecturing improves Anesthesiology Residents Year1 comprehensive learning in preoperative assessment

Keywords: Postgraduate education, teaching methods, interactive, anesthesiology, case problem, training, preoperative assessment

Authors: Carrero-Cardenal, E. Gomar, C. Penzo, W. Rull, M

Institution: Hospital Clinic. Barcelona University

Summary: Objective: To compare the effectiveness of two teaching methods for pre-anesthetic assessment: traditional lecturing (Group I = 29) versus a case problem based discussion (Group II = 25).

Methods: A controlled, prospective, randomized and simple blind study. Sample size: 54 residents of anesthesiology on the first year of the training program (24 were included in 1999 and 30 in 2000) belonging to a region with 6 million inhabitants. Learning assessment was performed through case problems before (PRE) and after (POST) teaching. Evaluation included ability on clinical problems recognition, comprehension, memory and decision. Teaching objectives were defined previously by the team of professors and equal for both groups and two expert teachers conducted teaching in the two groups.

Results: Both groups significantly improved ability on clinical problems recognition (Group I: 77.46% PRE vs 90.43% POST; Group II: 66.75% PRE vs 81% POST), comprehension (Group I: 62.73% PRE vs 71.20% POST; Group II: 60.40% PRE vs 85.57% POST), memory (Group I: 48.71% PRE vs 73.28% POST; Group II: 50% PRE vs 78.65% POST), and overall score (Group I: 68.87% PRE vs 78.88% POST; Group II: 67.27% PRE vs 84.60% POST). There was statistically significant differences between groups on comprehension score POST.

Conclusion: The teaching method based on a case problem discussion was more effective than traditional lecturing for pre-anesthetic assessment because produced better comprehensive learning.

Faculty members attitude on lesson planning in The Semnan University of Medical Sciences

Keywords: concepts, professors, lesson planning

Authors: Saberian, M.

Institution: Semnan University of Medical Sciences

Summary: Faculty members attitude on lesson planning in The Semnan University of Medical Sciences Saberian M. MSc Hajiaghajani S. MSc. Ghorbani R, PhD Malek M. MD.

1 - Faculty member of Educational Development Center, Semnan University of Medical Sciences

2- Director of Educational Development Center, Semnan University of Medical Sciences

3- Research Manager Semnan University of Medical Sciences

4- Vice Chancellor for Education and Research Semnan University of Medical Sciences

Purpose: to identify the attitudes of semnan University of Medical Sciences (SUMS) on lesson planning.

Methods: 53faculty members of the SUMS answered A questionnaire with 32 questions. Results were analyzed by SPSS (mean, standard deviation, absolute and relative frequencies, Chi square)

Results: 88% of faculty members favored lesson planning before the beginning of the semester. But they found lesson planning a difficult task, because of their heavy workload. Of the faculty members, 60.4% organized their teaching classes according to a designed lesson plan, believed that it did affect the quality of their teaching.

Discussion: professor favored lesson planning and find it necessary to work according to such a plan, workload and lack of knowledge are defined as two main obstacles in doing so. It is believed that by decreasing the professors workload and provision of lesson planning workshops, these problems could be solved. Considering all these possible benefits further studies is needed to specify the effect of revealing lesson plan for the student. .

Study of the Internet Condition among the faculty members in Semnan University of Medical Sciences

Keywords: Internet, Faculty members

Authors: Saberian, M.

Institution: Semnan Medical University

Summary: Saberian M. MSc¹ Hajiaghajani S.MSc² Ghorbani R, PhD³ Kasaei M. GP.⁴ Fatahizadeh L .BSc

1 Faculty member of Educational Development Center, SUMS

2 Director of EDC SUMS

3 Research Manager SUMS

4 Director of computer & information center SUMS

5 EDC, SUMS

Background: Access to Internet causes a high motivation in academic staffs. Hence management in universities attempts to provide Internet services for users.

Methods: 62 academic staffs in Semnan University of Medical Sciences were given questionnaire; containing 18 demographic and related to the use of Internet. Data were analyzed through SPSS.

Results: 82.2% of academic staffs using Internet facilities, 68.3% at home and 30% at work. 64.7% believed that the speed of availability to information was not desire able, 44.2% believed that Internet expense was appropriate for them. 64.9% of the cases were Internet agreement with filtrating the non Ó moral website, but only 8.8% were disagreement. 80.7% believed that using the data banks contracted by Semnan University are necessary. 50% believed that holding the Internet training classes would be necessary.

Discussion: to aware the faculty members toward the Internet

abilities and increasing the use of Internet, requires promoting the speed access to information. Thus to provide training courses for them, causes their abilities in data bank and their motivation are promoted. This increases the quality of research affairs, and the specialized information for teaching. It also facilitates access use the Email and finally leads to publishing the lectures research results throughout the world.

Student viewpoint on professors performance, Method of selection, description of duties and the extent of responsibilities

Keywords: *guiding professors, student, consultation guidance*
Authors: *Saberian, M.*

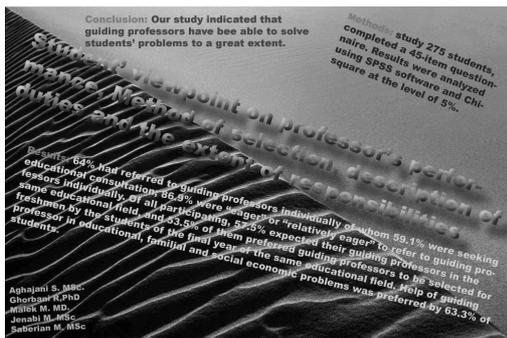
Institution: *Semnan University of Medical Sciences*

Summary: Background: Universities have a crucial responsibility in training the students and to achieve this goal, provision of consultation and guidance is indispensable. In this way, students will be assisted to overcome difficulties improve self-awareness and independent decision-making.

Methods: study 275 students, completed a 45-item questionnaire. Results were analyzed using SPSS software and Chi-square at the level of 5%.

Results: 64% of the students had referred to guiding professors individually of whom 59.1% were seeking educational consultation; 86.9% were eager or relatively eager to refer to guiding professors individually. Of all participating, 57.5% expected their guiding professors in the same educational field, and 53.5% of them preferred guiding professors to be selected for freshmen by the students of the final year of the same educational field. Help of guiding professor in educational, familial and social economic problems was preferred by 63.3% of students.

Conclusion: Our study indicated that guiding professors have been able to solve students problems to a great extent.



Developing inter-professional teaching for doctors in general practice

Keywords: *Inter-professional, teaching, learning, general practice*

Authors: *Buckle, G. and Gregory S.*

Institution: *LNR Postgraduate Deanery and Oxford Postgraduate Deanery*

Summary: Much work has been undertaken outlining the benefits of inter-professional learning and the delivery of healthcare through inter-disciplinary teams. However we also believe there is an important role for non-doctors to play in the delivery, organisation and management of education both for doctors learning for general practice (GP Registrars) and for doctors learning in general practice (Foundation programme doctors). We particularly wanted to develop the educational role of managers working in general practice enabling them to become a general prac-

tice educational manager in their own right. To achieve this we needed a) to develop a culture which is accepting of the non-medical as an educator of doctors b) to provide non-medical with the tools and accreditation to undertake this role. Both LNR and Oxford deaneries have non-medical educators amongst their VTS course organisers, CPD tutors and Associate Director teams. Their success has highlighted the possibilities for non-medical educators as educators in the wider postgraduate deanery setting. It is our intention to emulate this at general practice level. Introductory study days have been arranged for managers which covered a variety of topics. They then have the opportunity to move forward as an educator by attaining a qualification in medical education either by attending a deanery accredited course or by distance learning through a variety of universities.

We believe the development of the non-medical educator in general practice is a very positive step in broadening the learning opportunities for doctors and other health professionals

Assessing Clinical Teaching with Standardized Students: A Feasibility and Validity Project

Keywords: *stealth student*

Authors: *Wilkerson, W. Gruppen, L.*

Institution: *University of Michigan*

Summary: The clinical years are an essential part of undergraduate medical education. The majority of this experience is interaction between learners (students) and housestaff being supervised by attending staff. For the most part, neither attending nor resident has had instruction in techniques for teaching or for evaluating student performance. Increasing workloads have made this responsibility more challenging in all clinical settings. Learner evaluations of faculty has limited influence on the quality of this teaching. This project examines the utility of standardized students as an innovative method for learner stakeholders to evaluate clinical education and faculty development efforts that are designed to improve clinical education and provide formative feedback for teaching improvement. A pilot study was conducted during a faculty development seminar. Fourth year medical students were trained to be standardized students. They received specific instruction in how to evaluate bedside clinical teaching and then evaluated the teaching performance of faculty in a series of simulated teaching encounters. A future study will have standardized students review videotape of faculty-student interactions to allow us to estimate inter-rater reliability and refine the technology. Our aim is to incorporate a third phase: the stealth student. Thirty stealth students and their classmates will take their third year required clinical rotations and provide teaching evaluations on a specific set of target faculty. Data will be compared with traditional student ratings. Stealth students may hold promise for more specific and useful information and the quality of clinical teaching in medical school.

Results of a needs assessment for education in rectal contouring in planning of three-dimensional conformal radiotherapy (3D-CRT) for prostate cancer

Keywords: *needs assessment, radiotherapy planning, workshop*

Authors: *E. Szumacher, C. Hayter, C. Danjoux, V. Benk*

Institution: *Radiation Oncology Department, Toronto*

Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada.

Summary: Introduction: Radiotherapy is commonly used for localized prostate cancer. The three-dimensional conformal radiation treatment planning (3D-CRT) for prostate cancer requires precise target definition and accurate contouring of normal structures near the target volume. Due to radiosensitivity and the possibility of complications, accurate delineation of the

rectum is a crucial element in the planning process. However, there is no literature on teaching methods for rectal contouring in 3D-CRT.

Method: We conducted a survey among twenty-one Canadian Radiotherapy Centres about needs for education in rectal contouring in 3D-CRT planning.

Results: All twenty-one centres responded to this survey. In 20 centres, the rectal volume is routinely delineated in 3D-CRT. In eight centres the volumes were contoured by radiation oncologists, in eight by radiation therapists and in six by dosimetrists or others. No formal teaching intervention was conducted to teach this skill in any of the centres. This skill was acquired by one-to-one training, on-job training, peer based learning, and collaboration with a radiation oncologist or other. Several suggestions were made by the respondents.

Conclusion: No formal training programs in rectal contouring exist in Canada. Based on the results of this review, we propose to organize a rectal contouring workshop for radiation therapists and radiation oncologists to systematically and comprehensively teach rectal contouring in radiotherapy planning.

Using one-way mirror for teaching clinical interview: an experience

Keywords: *Clinical interview, medical students, interview techniques*

Authors: *Arman, .*

Institution: *Isfahan University of Medical Sciences*

Summary: Training medical students for performing clinical interviews with children and adolescents is very important, although the presence of students in the interview room could cause interference in the interview process and elevate the resistance of patients for a good rapport. On the other hand, the child's behavior in the interview room is another important source for the diagnosis. In our Child Guidance Clinic, the use of one-way mirror between the two interview rooms increases the level of education for communication between patient and physician. One-way mirror is an effective tool for training the interview techniques. A supervisor on one side of a one-way mirror directly observes and intervenes in the work of a trainee therapist interviewing a patient on the other side of the mirror. The group behind the screen would be invisible to the patient and the therapist, although the patient would be aware of the presence of the observers. A two-way telephone would connect the two rooms. Using our experience could be a help in providing a good context for training interview techniques.

The Influence of Teaching Clinical Skills on Instructors' Psychological, Social and Professional Aspects

Keywords: *Instructor, General practitioner, Teaching, Clinical Skills*

Authors: *Yamani, N.*

Institution: *Isfahan University of Medical Sciences*

Summary: Purpose: "Introduction to Clinical Medicine" in Isfahan University is an innovative course in which general practitioners work as instructors and have the opportunity to experience teaching in addition to clinical works. Since teaching, affects both teacher and students, this study aims to assess the influence of teaching on the instructors' psychological, social and professional aspects.

Methods: This was performed as a qualitative study. The research population consisted of instructors who were all general practitioners and acted as facilitator in small groups working on physical examination and case discussion. The data collecting tool was a semi-structured interview. The interviews were transcribed and were confirmed by interviewees at the end. The data were analyzed according to Collize model.

Results: After coding the data, they were divided to three main categories including professional, psychological and social categories. The influence of teaching on professional performance included performing a correct physical examination, taking a detailed and correct history, increasing decision making ability and increasing professional knowledge. Some of the psychological effects were increasing self-confidence, job satisfaction and improving morale. The social effects of teaching were such as increasing social contacts and having a relationship with an academic environment

Conclusion: Considering the effects of teaching on instructors, teaching clinical skills by general practitioners can increase general practitioners knowledge and clinical skills and improve their morale. It is recommended to train general practitioners both for teaching skills and clinical skills and consider this, as an opportunity for physicians' continuing education.

Initiation to patient-centered clinical reasoning: an innovation at Laval University Faculty of medicine

Keywords: *clinical reasoning, communication skills, undergraduate program*

Authors: *Côté, L. Glenn, J., Frenette, J., Gingras, N.*

Institution: *Laval University*

Summary: Until recently, the activities in our undergraduate medical program concerned with the learning of clinical reasoning, of communication skills and of the patient-physician relationship in medicine, were situated in different courses and had little coordination. With the goal of fostering an integrated and more complete acquisition of these clinical competencies by our students, we have modified the existing courses and initiated a new series of activities which began during the winter trimester of 2002. These activities aim at initiating the students to clinical problem solving in a context of a patient-centered medical interview. The principal challenge is to integrate the learning of clinical reasoning with that of patient-centered interviewing, using well-developed and appropriate communication skills. We have based the development of our interventions on the principles of cognitive psychology (e.g. using clinically significant material, progression of the learning tasks, learning situations which promote active reflective participation and practicing of the proposed skills). Our new activities include: Interactive courses on the patient-centered approach in medicine and on the communication skills used in medical interviewing; Clinical problem-solving in small discussion groups; Small group practice sessions of patient-centered medical interviewing, coupled with clinical problem solving; Individual interview by each student with a person presenting a major health problem, focused on the effect of this problem on the person's life, followed by a written reflection by the student on this experience; Support activities for the faculty involved. The proposed poster will present the essential points of this innovation.

How can medical students learn self-directedly in the clinical environment?

Keywords: *Self direction; Clinical teaching and learning; Apprenticeship*

Authors: *Dornan, T., Hadfield, J., Brown, M., Boshuizen, H., Scherpbier, A.*

Institution: *Universities of Manchester and Maastricht, and UMIST*

Summary: Aim: Establish whether and under what conditions medical students can learn self-directedly in the clinical environment.

Methods: Design-based research conducted within a novel curriculum that continues problem based learning into clerkships. A

web-based learning management system was developed to bring undergraduate medical students more in touch with their clinical learning objectives and provide ways of encountering appropriate patients. Evaluation was by qualitative analysis of 86 free response comments from student users and 66 free responses to an evaluation questionnaire. In addition, two groups of eight students took part in focus groups before and after using the system to explore their conceptualisations of self directed learning and experiences of it within the system.

Results: Students' narratives and self-reports of learning were rarely fully autonomous or subservient. They valued affective and pedagogic support, and relied on teachers to manage their learning environment. When support was provided, they felt motivated and were able to choose how and when to meet their learning needs. The learning management system was a useful adjunct. Interpreted literally, self direction was an inefficient method of learning that students defaulted to when support and guidance were lacking.

Conclusion: Self direction, as originally articulated and literally interpreted by many teachers, is a theory that fits poorly with the realities of learning in the clinical environment. Clarity of objectives and support give students a sense of direction that allows them to be self motivated.

Medical Student Self-Assessment: The Silent Competency

Keywords: *Self assessment*

Authors: *Weiss, P.M., Koller, C.A., Hess, L.W., Wasser, T.*

Institution: *Lehigh Valley Hospital and Health Network*

Summary: Objective: To determine if a medical student's self-assessment at the completion of the third year Ob/Gyn clerkship correlates with the institution's final grades.

Methods: Forty-six third year students finishing an Ob/Gyn clerkship at Lehigh Valley Hospital completed a self-evaluation form identical to the final rotation evaluation completed by the clerkship director. Students were asked to evaluate themselves on the following parameters: fund of knowledge, personal attitudes, clinical problem solving skills, written/verbal skills, and technical skills. Additionally, they were asked to predict their performance on the NBME Shelf Exam within pre-specified four point ranges (<25, 26-50, 51-85, >85). The data were then analyzed using the Chi-Square test of association.

Results: There was a statistically significant correlation between the students' self-assessment and the final clerkship grade in the following areas: written/verbal skills ($p=.018$), and technical skills ($p=.006$). Students were not able to accurately perform self-assessment in: fund of knowledge ($p=.319$), personal attitudes ($p=.516$), and clinical problem solving skills ($p=.725$). Additionally, they were unable to predict their own NBME Shelf Exam scores ($p=0.559$).

Conclusions: At the end of their Ob/Gyn clerkship, third-year medical students are better at assessing their technical and written/verbal skills than their global fund of knowledge and personal attitudes. These results may suggest that students aren't aware of their own personal attitudes and communication skills and how they can affect their effectiveness as a physician.

Standardized Patients Trained as Surgeons Receiving Oral Presentations

Keywords: *Oral presentation, standardized patient, OSCE, feedback*

Authors: *Gammon, W.*

Institution: *University of Massachusetts Medical School*

Summary: The oral presentation is considered an essential medical communications skill. An effective presentation succinctly and accurately reports details from a patient's history and physical examination, incorporating laboratory, radiographic and

other data. An oral presentation was included in the 2002 UMASS End of Third Year Assessment. One OSCE station required each student to do a focused history and PE on an elderly female patient with severe abdominal pain. Following the encounter, the student was given laboratory and radiographic results for that patient, some relevant, others not. The student was required to synthesize this information, then present the case to a "surgeon". Experienced standardized patients were trained as attending surgeons receiving the oral presentations. A checklist was developed containing items considered essential for presentation of this OSCE case of abdominal pain. It was divided into sections basic to an oral presentation: HPI, relevant medical history, physical exam findings, lab data, diagnostic impressions, and testing/management plan. In each section the SP could document any excessive or irrelevant information reported. SPs were trained to give standardized opening and closing statements, and general or specific prompts for each section if needed. The SP also scored a Likert scale developed to measure oral presentation skills of Organization, Pacing, Verbal and Non-Verbal Facilitative Behaviors and Verbal Economy. This unique application provides a powerful standardized evaluation tool for measuring oral presentation skills.

Promoting work based learning in primary care in the UK

Keywords: *Work based learning, primary care*

Authors: *Burton, J Dr Jackson, N Professor*

Institution: *London Deaneer yGP Department 20 Guilford Street, London WC1N 1DZ*

Summary: We set out a number of processes and influences involved in work based learning (WBL) in the primary care setting and invite participants to suggest how WBL can be promoted. We edit a new journal "Work based learning in primary care." We define WBL as learning that takes place at, for or from work – in other words it takes place geographically at our work place, purposefully for improving our work performance or causally from our experience of work. A number of processes can be noted in WBL

1. Both teams and individuals are involved – teams include practice units, district alliances, and primary care organisations
2. WBL can help to initiate and sustain the evolution of patient care. For example, "skilling up" the primary care workforce, in order to maximise patient care, should be rooted in WBL
3. There are different methods of learning – some of which, in themselves, have learning implications (learning to learn)
4. Information and knowledge are nowadays ubiquitous, for patients and healthcare workers
5. The patient is not only the focus of care, but is also the agent of WBL

There are a number of external influences on WBL

1. The drive towards occupational or professional accountability
 2. The governance agenda, in which "what goes wrong" is systematically discussed and acted upon
 3. The requirements to follow evidence based practice
- How can WBL remain vital and become rigorous?

Pioneer studnets in problem-based learning: informal support networks during the first few years of their medical studies

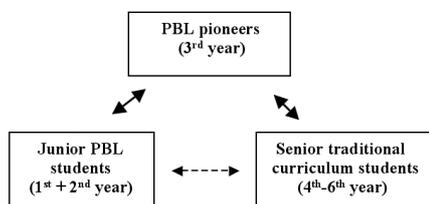
Keywords: curriculum reform; informal support networks; problem-based learning; pioneers

Authors: McLean, M.

Institution: University of KwaZulu-Natal

Summary: The first student cohort in a new programme will always be pioneers, experiencing reform first hand. Their evaluation of the programme is valuable as it impacts on subsequent implementation. Despite only 40% of students returning questionnaires, those who did provided considerable insight with regard to whom they approached for advice. Of particular interest is the interaction between different years of PBL students as well as the interaction between PBL and traditional curriculum students (Figure 1). As expected, pioneer PBL students were a source of information for their more junior colleagues, who sought assistance with assessment, textbooks and resources. Not anticipated was the extent to which pioneer PBL students consulted traditional curriculum students, particularly in relation to clinical aspects. PBL students are exposed to patients from Year 1. With some as young as 16 years, encountering patients only 3-4 months after admission must have been daunting. In 2001, the 4th-6th year traditional curriculum students were the only students these young pioneers could approach. The interaction between the pioneer and traditional curriculum students was mutually beneficial. Traditional curriculum students approached PBL students largely for assistance with clinical skills and with finding information. This survey suggests that a multidirectional informal support network amongst students within the PBL curriculum as well as across curricula. These results provide some direction for curriculum developers regarding the needs of not only the pioneer PBL students, their junior colleagues in subsequent years of PBL implementation but also students in the traditional programme being phased out.

Figure 1. Summary of the informal support network amongst students in a PBL programme that is replacing the traditional curriculum, as gleaned from the surveys of the 3rd year PBL students, who were pioneers in the new programme in 2001. Solid lines represent the confirmed interactions. The broken line represents implied interactions.



Continuing Medical Education to Continuing Professional Development, the Kosovo Experience

Keywords: CPD. Kosovo. WFME

Authors: Hedley, R.

Institution: University of Pristina, Kosovo

Summary: Continuing Medical Education to Continuing Professional Development, the Kosovo Experience.

Between 1989 and 1999, Kosovar academics and professionals in all disciplines were systematically expelled from their posts. A parallel system of education and training was developed in Mother Theresa clinics. Doctors kept up to date as best they could without access to libraries. Following the intervention of NATO in 1999, a CME Board was established. An Administrative

Instruction was issued such that all registered doctors would have to be revalidated in 2007 and every 5 years thereafter. In primary care a curriculum was developed for 100 general practitioners in six modules. For secondary care, specialists from across Europe were invited to give lectures and demonstrations. In 2003 the European Agency for Reconstruction (EAR) issued a tender including the reform of continuing professional development. The bid by a consortium headed by HLSP was accepted. A study tour was organised in 2003 to the Copenhagen conference of WFME for influential Kosovars who would become change agents. A small group of these, facilitated by international experts, produced an action plan based on the WFME standards, introducing in particular the concept of the Personal Portfolio in CPD and its linkage to revalidation. This was presented to stake holders at a conference in Prishtina and accepted unequivocally. The action plan is now being implemented.

1. World Federation for Medical Education. Continuing Professional Development. Global Standards for Quality Improvement. WFME. Copenhagen 2003. <http://www.wfme.org>

Communication skills for medical/dental students at the University of Pretoria: A two-year study of the effectivity of a forum theatre method

Keywords: communication skills; drama; attitudes; knowledge

Authors: Kruger, C. Blitz-Lindeque, J. Pickworth, G.

Institution: University of Pretoria

Summary: This two-year study examined the effectivity of the forum theatre method for teaching communication skills.

Methods Medical and drama teachers designed this action research project to teach second year medical/dental and drama students. The drama students enacted problematic doctor-patient scenarios. The interactive enactment was performed for groups of 70 medical/dental students. The audience interrupted the actors to suggest improved communication skills. The drama students then re-enacted the scenarios, incorporating the improvements. The medical/dental students' knowledge of communication skills was assessed before the enactment, 3 weeks afterwards, and 4 months after that. Their semi-structured feedback was analysed thematically and used to improve the methodology for new second year students.

Results: The medical/dental students' knowledge improved significantly after the enactment, and this was sustained for 4 months. In year 1, the feedback revolved around language problems and disrespectful attitudes. In year 2, visual cue-cards of the communication skills were displayed during the enactment, and the drama students emphasised these rather than attitudinal problems. However, feedback showed that caricaturing of the doctors' attitudes still detracted attention from the desired focus on communication skills.

Conclusions: This is an effective method for transferring knowledge of communication skills. The focus of the acting should be on demonstration of inappropriate communication skills rather than inappropriate attitudes. One limitation of this study is that assessment was limited to knowledge and did not progress to skills.

"Student Selected Components" (SSCs): threatened opportunities?

Keywords: Student Selected Components; Ethical approval

Authors: Black, A.

Institution: University of Bristol

Summary: "Student Selected Components" (SSCs): threatened opportunities? The General Medical Council deems that 30% of

the UK undergraduate medical curriculum should be devoted to SSCs - to enhance learning capacity through variety of learning experience. In Bristol, "external" SSCs (outside the normal modules of teaching) are unrestricted as to subject matter, provided that learning objectives are sufficiently novel and challenging. Students are encouraged to recruit a supervisor to discuss and agree objectives and specific marking criteria. The resulting diversity of subject, investigative approach and supervisor/assessor challenges attempts to devise a valid summative mark. As coordinator of the programme, I have so far reviewed two thirds of the external SSCs undertaken by third year Bristol students in July 2004. They overwhelmingly indicate learning endeavours well beyond the already familiar library work. Three quarters are clinical investigations: of these, most are retrospective observational cross-sectional or longitudinal studies (some qualifying as "clinical audit") requiring access to patient information, while some are based on questionnaires directed at healthcare workers or patients. Without sharing more explicit background information with each supervisor, I could not psummary (and did not set out) to validate or moderate their marks. Quite apart from their educational value to the students, many SSCs are invaluable contributions in their own right to healthcare. With a few notable exceptions, scant regard has been explicitly paid by students or supervisors to the correctnesses of "research governance". Insisting on these may restrict students' future access to vital, high-grade learning experiences.

Assessment of their learning styles in a group of cardiology medical residents

Keywords: *medical education - learning styles - medical residency*

Authors: *Alves de Lima, A., Betatti, M., Baratta, S., Falconi, M. Sogn, F., Galli, A., Barrero, C., Cagide, A., Iglesias, R.*

Institution: *Argentine Society of Cardiology*

Summary: Objective: To identify the learning styles of a group of medical residents that pertain to a university cardiology course from the Argentine Society of Cardiology. Population and method: An observational and transversal study was carried out, based on a 120-item survey developed by Vermunt and collaborators. According to this survey it is possible to identify four styles: reproductive directed, meaning directed, application directed and undirected. Each style shows characteristics that differentiate one from the others: 1. cognitive processes, 2. regulation processes, 3. mental models and 4. learning orientations. Results: The questionnaire was answered by 149 cardiology medical residents between April of the year 2001 and April of the year 2002. Average age was 29 ($\pm 2,7$) years and 63% were male. Predominance of concrete thought was observed in processing strategies ($4,05 \pm 0,65$) and of self-regulating mode in the regulation ones ($3,38 \pm 0,59$); however, in learning orientations vocation prevail ($4,47 \pm 0,50$) and in mental models application ones stood out ($4,28 \pm 0,45$).

Conclusion: All of these characteristics correspond to an application directed learning style.

Education for clinician scientists: the Cambridge MBPhD programme

Keywords: *Academic medicine; MBPhD programme; careers*

Authors: *Wood, D.F. Cox, T.M. Peters, D.K.*

Institution: *University of Cambridge School of Clinical Medicine, Box 111, Addenbrookes Hospital Cambridge CB2 2SP U.K.*

Summary: The Cambridge MBPhD programme aims to encourage medical students into academic medicine. The programme was the first of its kind in the UK and enables undergraduates to combine their clinical studies with a period of research leading

to MBBChir and PhD degrees. The programme started in 1989 and is integrated with the standard undergraduate course. Enrolment is open to students from Cambridge or elsewhere who have completed two years of "pre-clinical" medical studies, obtained a Bachelor's degree in a relevant subject and been accepted onto the Cambridge clinical course. The 3 - 3.5 year research period follows 15 months of clinical studies and includes clinical teaching throughout. Having submitted their PhD, students return to the final year of the clinical course. To date, 116 students have enrolled of whom 36 are women, 30 have transferred from other universities, 14 are overseas students and 9 are from the EU. Subjects for research vary from molecular sciences to projects in general practice, radiology, pharmacology and neuropsychology. 56 students have graduated, with 41 distinctions in clinical subjects at final examinations. Of the 50 who graduated by 2002, 31 are in higher medical training and 17 in tenured or tenure-track academic posts, the pharmaceutical or biomedical industries. A high proportion of MBPhD graduates report continuing academic work and intention to continue clinical academic activity.

Changes in Self-Efficacy During Medical Education: Results of a 4-Year Study

Keywords: *Self efficacy; Medical students; Medical education*

Authors: *Perrot, L.*

Institution: *University of Arkansas for Medical Sciences*

Summary: According to Bandura's social-cognitive-theory, students' judgments of their capability to perform academic tasks (self-efficacy beliefs/cognitions) predict their potential to accomplish such tasks. Pajares found that students who have high self-efficacy will approach difficult tasks with feelings of serenity and see them as challenges to be mastered, and will have greater intrinsic motivation and set challenging goals for themselves. They can recover from failure more quickly and will attribute their failure to insufficient effort or the need for additional skills and knowledge. Bouffard-Bouchard, Parent, and Larivée found that students with high self-efficacy engaged in more effective self-regulatory strategies at each level of ability. The objective of this study was to evaluate self-efficacy of medical students as they progressed through undergraduate medical education.

Methods: A class of medical students was surveyed at orientation and re-surveyed at the end of each year of medical school to determine their self-efficacy beliefs about learning. The survey consisted of 11 of Bandura's items. Three subscales assessed beliefs about self-regulated learning, meeting other's expectations, and self-assertion. Students were asked to rate how well they could do each item using a 5-point Likert-type scale.

Results: The mean response for each item was calculated and changes in mean responses from fall to spring were determined. Results will be reported.

Conclusion/Discussion: When faced with the rigors of medical school, students re-assess their self-efficacy. Knowledge of the beliefs students hold about their own capabilities, therefore, may be a better predictor of their behavior than the knowledge and skills they have acquired.

More than the core learning- what fourth year students gained from a community oriented module involving a woman at the end of her pregnancy and through to the child's first three months of life

Keywords: *community orientated learning, pregnancy module, non morbid health needs*

Authors: Wylie, A.

Institution: *Guy's, King's & St Thomas' School of Medicine*

Summary: Aim This module, established in 2000 at GKT School of medicine, had been well evaluated, although there were some problems. As we were about to revise the curriculum, we aimed to obtain an in-depth feedback of the impact of this course and sought the views of the student cohort 2001-2.

Method: The students (n339) were sent questionnaires electronically at the end of the academic year. The qualitative questionnaire was developed based on evaluations, anecdotal feedback and two focus groups.

Results: The response rate was 68% (n230). Students valued the opportunity to meet the woman in her own home in a relaxed environment. They were able to appreciate normal health care needs associated with pregnancy and child development. The experience consolidated some aspects of their clinical learning and they reported an appreciation of the social and personal aspects that impact on women and her family at such time of major change. They gained insight with regard to the importance of cultural and religious customs, and the important role of the multi-disciplinary health care team.

Conclusion: The reported gains suggest the module, despite the challenges, should continue. It enables students to gain an understanding of the interface of morbidity and non morbidity, patient centeredness, the social determinants of health and the role of multi-disciplinary teams as they approach their qualifying year. This example of community orientated learning suggests that students benefited beyond what is required for the core curriculum. This presentation will report on the questionnaire, the findings and the lessons learnt.

Choosing Pathology: A Qualitative Study of the Influence of Undergraduate Education in Career Choice

Keywords: *Career choice, undergraduate education, Pathology*

Authors: *Raphael, S.J.* Lingard, L.*

Institution **Departments of Laboratory Medicine, Pediatrics and Centre for Research in Education, University of Toronto*

Summary: Choosing Pathology: A Qualitative Study of the Influence of Undergraduate Education in Career Choice. **Introduction:** Student specialty choice affects the ability of the profession to meet community needs. Pathology is in a unique position as the main exposure to the field is in an undergraduate course rather than in the clinical setting. Our purpose was to examine the influence of this course on choosing a career in Pathology.

Methods: We chose a qualitative approach because of its strengths in examining motivation. The knowledge and perceptions regarding Pathology using two student focus groups was compared to the motivations and experiences of one focus group each of Pathology Residents and Consultants.

Results and Conclusions: We found themes both specific for Pathology and applicable for career choice in general.

1. Motivations had changed over time. The Pathologists were attracted by the intellectual appeal of Pathology found in their undergraduate course. For Residents the intellectual appeal of Pathology was not reflected in their course and Lifestyle aspects appeared more important. For Students, teaching skill and

approachability, personal experiences and Lifestyle influenced their impression of the career rather than course content.

2. Pathology carries a stigma which is known to Medical Students. Overcoming this stigma is part of choosing Pathology.

3. Medical Students feel they choose their careers without the information they need and do this in an atmosphere permeated more by rumour than reliable opinion or fact.

Conclusion: The Pathology course is not a major factor in choosing a Pathology career.

Continuing Medical Education "Iranian Profile"

Keywords *Continuing Medical Education*

Authors: *Mahmood Mohammadi, Pante'a Pedram, Ali Akbar Zeinaloo, Mandana Shirazi*

Institution: *Educational Development Center of Tehran University of Medical Sciences*

Summary: Since the introduction of CME in early 70's, it has been used as an effective way of updating medical education. In Iran, CME was introduced in 1990 and physicians, dentists, pharmacists and medical lab specialists have been obliged to gain at least 125 credits each year through CME programs to revalidate their permissions for private practice. CME activities are under the direct supervision of ministry of health but they are designed and organized by the main medical universities and societies. Main methods used in our CME programs were: Seminars, congresses, workshops, practical short courses, conventional assigned activities and self learning programs. In a needs assessment done at TUMS, the most appropriate formats of CME were expressed by participants as:

- Conventional assigned programs (53.9%)
- Online programs (43.3%)
- Self learning packages (41.7%)
- Seminars and other types of meetings (33.5%)
- Journals with CME credits (32.1%)

And the most attractive methods as:

- Talks accompanied by video presentation (52.1%)
- Interactive lectures (52%)
- Workshops (43.6%)
- Online learning (27.2%)

In Iran the most common format actually used, are conventional assigned programs, congress and seminars; but there are some trends toward using new methods like online and distant learning. TUMS acts as a pioneer at the national level, in this regard by providing the self teaching books and audio cassettes for physician as the main tools of CME. The most important threats to CME programs in Iran are: insufficient resources and decreased incentives in target groups. But we are going to improve the situation by implementation of new management strategies and introduction of new methods of self learning programs.

The Canadian O.R.E.E.M. (Operating Room Educational Environment Measure) – gathering S.T.E.E.M. (Surgical Theatre Educational Environment Measure) from the Scottish experience

Keywords: *educational environment, educational climate, evaluation, surgery*

Authors: *Kanashiro, J., McAleer, J. and Roff, S.*

Institution: *Centre of Medical Education, University of Dundee*

Summary: The operating room or surgical theatre is the centerpiece of learning for postgraduate surgical trainees. The educational environment is manifested as the "ethos" or "climate" that affects all aspects of learning within an educational setting. A measure of the educational environment in the operating room

would assist both trainers and trainees to gauge the teaching and learning taking place within this venue. The S.T.E.E.M. (Surgical Theatre Educational Environment Measure)*, developed in the Scottish setting and validated using basic surgical trainees, was modified for Canadian use. A corollary tool the O.R.E.E.M. (Operating Room Educational Environment Measure) was created for Canadian surgical residents. The 40-item O.R.E.E.M. was piloted on a group of general surgery residents at the University of Calgary. With a response rate of 95.6% (22/23), the O.R.E.E.M. was shown to be a relevant, reliable (Cronbach's alpha = .8656) and valid tool for assessing the overall educational environment in the operating room within a surgical residency program. Four subscales were determined: teaching and training, learning opportunities, workload/supervision/support and atmosphere. The overall mean score of 73.6% suggests the learning environment is satisfactory; however there are areas that require improvement. Item analysis revealed strengths such as a non-discriminatory operating room atmosphere and positive teacher characteristics. Identified weaknesses were residents being paged during operations, lack of ward coverage and lack of pre-procedural discussion by preceptors with residents. In conclusion, this measure has the potential to be applied further as a quality assessment tool or as a comparative tool with other training sites.*Cassar, K (in press), Development of an instrument to measure the surgical operating theatre learning environment as perceived by basic surgical trainees, Medical Teacher.

Do family practice resident trainees ask better formulated clinical questions as they advance in their training?

Keywords: *Informal Consultation, Question Formulation, Self-Directed Learning*

Authors: *Bergus, GR; Emerson, M; Reed, DA; Attaluri, PA*

Institution: *University of Iowa*

Summary: Purpose: In earlier research we found specialty physicians more willing to support primary care physicians informally asking for assistance when the primary care physician asked a well-formulated question. In this study we investigate whether family practice residents improve in how they formulate clinical questions as they progress over their three years of training.

Methods: The study involved a retrospective cross-sectional analysis of questions asked by 49 family physician residents engaged in informal consultation with 32 subspecialists using an e-mail based system. The clinical questions were parsed using the PICO taxonomy. For this analysis, clinical questions were given one point for identifying the task involved with a clinical problem, a proposed intervention, or an outcome resulting in question quality being measured on a 0 to 3 scale.

Findings: There were 454 clinical questions available for this analysis. The mean question quality was 2.08. Questions asked by first year residents had a mean quality score of 2.08, second year residents a score of 2.07, and third year residents a score of 2.09 (p=0.98). Thirteen residents used the e-mail service over their entire three-year training period. Although the individual residents showed significant differences in how well they formulated clinical questions (p=0.01), there was no evidence that the quality of their questions changed as they progressed in their training (p=0.80).

Conclusion: Resident physicians asked clinical questions that were moderately well-formulated although their question formulation did not improve as they progressed in clinical training. Specific skills training in formulating clinical questions might be helpful.

Faculty Development and Clinical Teaching in Medicine. Developmental process and orientations of a large-scale program aimed at all clinical faculty members

Keywords: *Faculty development, Clinical teaching*

Authors: *Chamberland, M.Hivon, R.*

Institution: *Université de Sherbrooke*

Summary: In response to societal demands, current agencies responsible for medical training now require that all of the components pertaining to professional medical competency be taught within the pre- and postdoctoral programs, and particularly during clinical training. These components, in conjunction with clinical reasoning, include among others communication, ethics and professionalism. In practice, clinical teaching of these components is most often informal, random and implicit, with teachers having very little preparation specifically geared to this task. In the aim of improving and to better integrate this training into actual bedside care, our institution has decided to invest significantly in faculty development. This poster describes the developmental process and orientations of an ambitious faculty development program aimed at our entire staff of clinical teachers. The fundamental steps in establishing this strategy are presented herein under four headings:

1. Background: prevailing challenges in clinical teaching as the basis of this initiative;
2. Conceptual foundations serving as backdrop to the overall strategy: a theoretical framework of learning and teaching and guiding principles for faculty development;
3. Methodology used in developing the program, inspired from "Problem-based Methodology" and action research; 4.

Results: orientations of the program: a large-scale, progressive, iterative and continuing program, centered on the conscious and explicit exercising of role modeling and clinical

How to decrease the emotional impact of cadaver in medical students

Keywords: *emotional impact, cadaver, dissection, medical, students*

Authors: *Javadnia F., Kalantar Mahdavi sr., Khajemougahi N., Hashemitabar M*

Institution: *Ahvaz University of medical science*

Summary: Introduction: Teaching of anatomy is based on cadaver dissection (CD). Working with cadavers, whether through active dissection or by examination of prosected specimens, constitutes a potential stressor in medical education. So the reduction of stress is the aim of this study.

Methods: The questionnaires were distributed among 68 first year medical students. The pre-dissection questionnaire No.1 comprised questions relating demographics and first encounter with a cadaver. Then the students were randomly divided into experimental and control groups. The experimental group was prepared psychologically prior to dissection but the controls without any preparation. After the first dissection class all the students were surveyed by questionnaire No.2 which including physiological and cognitive symptoms of anxiety, resulting from exposure to the dissection room. The questionnaire No.2 was again given to the students six weeks later.

Results: There was no significant difference in the rate of stress between control and experimental groups before dissection. There was a significant difference in the rate of anxiety between before and after the entrance to dissecting room in experimental group (p<.05), but it was not significant in control. The difference in the rate of anxiety between the first and sixth exposure was significant in control group (p<.05), while it was not significant in experimental group. There was a significant difference (p<.05) in the rate of anxiety between experimental and control groups

in the first visit but after six weeks it was not significant. Conclusion: The initial preparation could relatively reduce the rate of stress, so that the experimental group experience less emotional effects during dissection compared to control group.

A short workshop on teaching improves student ratings of instructors

Keyword: Faculty Development, Evaluation, Workshop

Authors: Cook, D. Harley, D. and Pandachuk, K.

Institution: Division of Studies in Medical Education, University of Alberta

Summary: A two-day teaching enhancement workshop is offered to members of the academic staff and also to medical residents at the University of Alberta. The workshop comprises presentations on fundamental principles of instruction, a videotaped "microteaching" exercise, and series of short sessions on topics identified by the registrants as particularly relevant to their needs. In order to determine the success of the workshop, the registrants were asked to assess its value at the conclusion of the workshop, and "before" and "after" ratings by students were obtained. These ratings were routine assessments of teaching excellence by students, data that are in the public domain, and which represent a blinded assessment, in that the students were unaware of whether the instructor had taken the workshop. Control data were obtained over time from instructors who had not taken the workshop. The participants uniformly regarded the workshops as helpful. Both Faculty and Residents regarded the short teaching exercise as the most important component of the program. Of the instructional sections, the presentations on objectives and on structure (set, body, closure) were rated most highly by both groups. Teaching rating using a standardized student questionnaire that is routinely applied to instruction in the University of Alberta showed that the mean student ratings for the academic staff after the workshop were significantly increased. We conclude that short teaching enhancement workshops are useful in improving the teaching abilities of instructors.

Integrating Communication and Clinical Skills into a Progressive Curriculum: Pearls and Pitfalls

Keywords: Standardized Patients, OSCE, Curriculum Enhancement, Performance Evaluation, Communication Skills

Authors: Desai, G.

Institution: The University of Health Sciences

Summary: Gautam Desai, D.O. Introduction Formal physician-patient communication training at the University of Health Sciences (UHS) College of Osteopathic Medicine has previously been limited to first year students. Currently, physical examination skills are taught during the first two years. There was no course combining both communication and physical examination skills before 2002.

Hypothesis. Integration of communication and examination skills will improve the clinical performance of medical students. The culmination of the first and second years of training is the Clinical Skills Assessment, a multi-station OSCE designed to emulate clinical scenarios commonly encountered during clerkships. Integrating communication and physical examination skills training will likely improve performance on clerkships and the national board examination.

Methods/Pearls/Pitfalls. A new course, Advanced Clinical Communication Skills, was created in 2002 to encompass core skills required during clerkships. At UHS, this course presented multiple challenges and opportunities to develop solutions.
**(Please insert attached JPEG table here)

Results. The Advanced Clinical Communication Skills course was successfully implemented and feedback from learners has

been positive. Ongoing assessment of this program's success includes evaluation of preceptor feedback following clerkships, comparison to students who did not take the course, and UHS student success on the first performance evaluation component of national boards.

Pilot Portfolio Project for final year Family and Community Medicine residents. Catalonia, 2004

Keywords: Portfolio, Family Medicine Residents, Formative
Authors: Arnau J¹, Torán P², Forés M², Cots JM², Fornells JM¹, Martínez-Carretero JM¹.

Institution: ¹Institute of Health Studies ²Catalan Family and Community Medicine Teaching Units

Summary: One of the characteristics that defines the General Practice / Family and Community Medicine specialty is to take care of many patients during their whole life span, when they have an acute failure and when they suffer from a chronic disease. This longitudinal care implies that one of the basic family medicine competences must be the holistic management of patients that have to live with health problems for long periods of time and even for the rest of their life. During the third year of residency, residents will directly deal with chronic situations because they will constantly be in contact with and will take care of patients who are habitually treated by his/her tutor. For this reason, the management of these patients is a competence that must be assessed in a structured and standardized manner, not only, as it is at the moment, based on observations from tutor, but in a way that makes possible the detection of possible learning weaknesses and the planning of activities addressed to their improvement.

Objective: To formatively assess final year residents' competences in the global management of patients with, multiple or single, chronic illnesses, along an expanded period of time, a simple portfolio project has been started to pilot its usefulness and refine its design.

Subjects: Some 20 family medicine last year residents, from three Teaching Units, supported by their tutors.

Assessment tools (Portfolio contents): Five critical incidents encountered in day-to-day professional practice. One narrative summary (250-1000 words) of a one year follow-up of a typical chronic patient (Patient with multiple pathologies, young patient with asthma, cardiopathy, dislipemia...., home cared old patient, terminally ill patient, complain by a long evolution patient...) Portfolio assessment criteria: Are currently been developed by an ad hoc committee and will be presented at the conference.

Mrs

Keywords: IBL attributes, IBL process, Preparation for practice

Authors: Bebb, H.

Institution: APU

Summary: 11th Ottawa Conference abstract Does a Pre-registration nursing IBL curriculum work? The Health Schools at Anglia Polytechnic University (APU), implemented an Inquiry-Based Learning (IBL) curriculum in the 3 year Pre registration nursing programme in April 2000, employing a 'whole course' approach. Students using IBL are expected to develop a range of cognitive and behavioural attributes that are deemed essential for current and future health care practice (DOH 1999, UKCC 1999, DOH 2000). A follow up study of a sample of ex students from the first cohort (April 2000) was carried out after 8 months practice as registered nurses. We explored the perceptions of these nurses regarding the effectiveness of this innovative programme in preparing them for their role. Interviews with their immediate clinical managers provided a corresponding management perspective. The main findings indicated that most of the anticipated IBL attributes were well developed, including self directed lear-

ning, communications and interpersonal skills, clinical practice, integration of theory and practice, problem solving, clinical reasoning and motivation for lifelong learning. However, issues regarding the level of support and guidance particularly during the 1st year and the potential for some students to 'avoid' the IBL process are worthy of further exploration and discussion. Dept of Health (1999) Making a Difference London HMSO Department of Health (2000) The New NHS London HMSO United Kingdom Central Council (1999) Fitness for Practice London UKCC
 Presenter: Hilary Bebb Associate Dean School of Healthcare Practice APU Bishops Hall Lane Chelmsford Essex CM1 1SQ
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The teachers' roles in anatomical dissection

Keywords: Role

Authors: Brenner, E.

Institution: Medical University of Innsbruck

Summary: In order to classify an educational method, first of all proper defining terms must be selected. No common consent exists on what characterizes an educational method. The aim of the current study is to enlighten for the educational method of anatomical dissection the specific personal commitment with a certain role as a teacher, as defined by Harden and Cosby (2000). In anatomical dissection the teaching process is mediated by academic staff, often supported by advanced students in the role of tutors and/or demonstrators. A questionnaire was developed from the paper by Harden and Cosby (2000) and administered electronically. The most important roles with a great commitment of more than 50% of the responses each were (1) the Learning Facilitator, (2) the Clinical/Practical Teacher, and (3) the Student Assessor. The least important roles were (1) the theoretical Role Model, (2) the Lecturer, and (3) the Curriculum planner. With these results, a more stringent definition of the educational method of anatomical dissection can be made. [Harden R, Cosby JR. 2000. AMEE Guide No. 20: The good teacher is more than a lecturer - the twelve roles of the teacher. Med Teach 22:334-347.]

Learning Patterns in Medical Students- A study in progress

Keywords: Learning Styles, Learning Attitudes, Lifelong Learning

Authors: U.Choudhuri, H.McKenzie and N.Reid.

Institution: University of Aberdeen and University of Glasgow

Summary: Context: The GMC has highlighted the need for medical students to be self motivated lifelong learners with emphasis on the "learning process" (GMC, Tomorrow's Doctors, 2002). It is known that student attitudes and learning styles vary and may influence their potential to become lifelong learners. However, very little is known about how these attributes vary among a cohort of first year medical students and whether they have any correlation with the outcomes of their medical education.

Aim of Study: To investigate the variability in aptitudes, attitudes and styles of learning amongst medical students and to investigate their role in student performance. This is a study in progress.

Summary of work: The first year MBChB students at Aberdeen were invited to participate in this evaluation process and learning styles, perspectives on learning, working memory space and field dependency were investigated using various instruments including the Kolb LSI, Perry Forms of intellectual and ethical development, embedded figure test and the digit span test. Planned analysis includes descriptive data and correlations between the different attributes with the examination results. The methodology and some preliminary data is presented. It is hoped that the

results will provide a measure of the variability among this high achieving, competitively selected population and some conclusions about the factors influencing success or otherwise can be drawn.

Challenges in osteopathic medical education: technical standards meet accommodations

Keywords: technical standards and accommodation

Authors: Joseph F Smoley, PhD

Institution: National Board of Osteopathic medical examiners (nbome)

Summary: Osteopathic medical students in order to fully function as health care providers must make use of certain sensory and motor functions to permit them to carry out the practice of osteopathic medicine. In particular, the following areas are critical:

1. Observation: Students must be able to observe demonstrations, experiments, and microscopic laboratory exercises in the basic sciences. It is essential to have adequate visual capabilities to assess structural asymmetries, range of motion, and tissue texture changes.
2. Communication: Students should be able to communicate with patients in order to elicit information, examine patients, describe multiple patient characteristics, and perceive non-verbal communication.
3. Motor: Students must be able to execute movements required to provide general care and emergency treatment of patients (i.e., palpation, auscultation, percussion, etc). These actions require coordination of both gross and fine muscular movements, equilibrium, and functional use of the senses of touch and vision.
4. Sensory: Students need enhanced tactile, sensory, and proprioceptive abilities, in order to apply OMT.
5. Strength and Mobility: Osteopathic manipulative techniques often require upright posture with sufficient extremity and body strength. This paper will examine the challenges presented to osteopathic students in their osteopathic medical education and subsequent clinical training. The specific technical requirements for osteopathic medical training will be presented with discussion of approaches, applications within osteopathic manipulative treatment (OMT) and implications for a licensure examination.

Human dissection – Student reactions and the meanings attached to it

Keywords: Anatomy, student learning, qualitative research

Authors: Lamdin, R.; Kerse, N.

Institution: University of Auckland

Summary: Anatomy and in particular dissection has formed a significant part of medical education for hundreds of years. There has been research and debate regarding the psychological consequences of dissection on participating students and into the development of other techniques of teaching students anatomy. This presentation is of another aspect of dissection in undergraduate medical education – what does it mean to students? At the University of Auckland anatomy is taught in second and third years at medical school. Teaching is comprised of large-class, didactic lectures, small-group radiology teaching, cadaveric dissection and histology (microanatomy) laboratories. Because of the significance students have an orientation session prior to entering the dissection laboratory. Twenty one students were interviewed in their third year at medical school as part of a larger study on medical student socialisation. Interviews were focussed on student experiences at medical school, including the anatomy laboratory. I attended the student orientation and first session of the anatomy laboratory as an observer. Interviews were transcribed and the transcripts were analysed for identification of themes. Notes from the orientation were also analysed.

The over riding or major theme derived from the interviews and observation notes is that whilst teachers objectify the cadavers, students actually subjectify them. An example of this is naming their cadaver. They are also aware of the uniqueness of their experiences in society at large. This research will be presented concluding with the implications for teachers concerned with humanities and medical education more generally.

Professor and Associate Chair for Pediatric Education

Keywords: *Sociocultural Medicine*

Authors: *Bozynski, M.*

Institution: *University of Michigan Medical School*

Summary: Integrating a Sociocultural Medicine Curriculum in Pediatrics Mary Ellen Bozynski, M.D., M.S. Tricia S. Tang, Ph.D, Hilary M. Haftel, M.D., Robert M. Anderson M.Ed., Ed.D., Joyce M. Mitchell, M.D., Valerie Press, B.S. The growing diversity of the US population demands that physicians be well grounded in socio-cultural medicine. This curriculum targets residents (including Pediatric, Family Medicine and Emergency medicine) and medical students. The curriculum seeks to integrate a longitudinal and comprehensive sociocultural medicine curriculum within Pediatric Education. This curriculum involves a three-pronged approach targeting the multi-systemic levels of the individual physician, educational infrastructure, and the evolving culture of medical training. Individual Physician Promote cultural humility and lifelong learning. Cultural humility refers to the attitude in which physicians acknowledge their own biases affecting health care delivery and engage in continual reflection and self-directed learning. Also implicit in this attitude is the recognition that the patient/family is the teacher of their own unique culture and the acceptance to challenge traditional power differentials in the patient-physician relationship. Educational Infrastructure Imbed socio-cultural awareness and competency into mainstream education activities. Learning experiences will be integrated within all traditional educational structures. Evolving culture of medical training Launch an innovative teaching method to meet the changing culture of resident training. Given the recent policy to reduce resident work hours (80-hour week) and the geographic dispersal of residents across multiple training sites, we are implementing an interactive web-based bulletin board to conduct faculty-proctored case-based discussions focused on socio-cultural topics and challenges.

The Yorkshire School of Surgery - a pilot for Modernising Medical Careers?

Keywords: *surgical teaching; senior house officer training; Modernising Medical Careers*

Authors: *WARD, M. M LANSDOWN, M R GOUGH, M J*

Institution: *Leeds teaching hospitals trust*

Summary: In 2003, the Department of Health published 'Modernising Medical Careers', outlining their proposals on reforming the Senior House Officer grade of doctors in training in the UK. The document recognises the need for regional programmes to ensure training:

- is accountable and closely managed
- is curriculum-based
- requires formal entry requirements
- provides planned and structured training, including assessment and appraisal
- is time-capped to prevent post or programme blocking

The Yorkshire School of Surgery was created in 2000 in order to improve the training and educational package for Senior House Officers wishing to pursue a career in surgery. There are currently 144 posts within the School. Applicants must have achieved the required standard of undergraduate and pre-registration training. Once on the 3-year rotation within the School, trainees sign up to a learning agreement which guarantees them

a place on the 3 courses deemed mandatory or highly-recommended by the Royal College of Surgeons and to 2 surgical teaching weeks per year - the programmes for which are based on the College curriculum. They are also appraised and assessed every 6 months. This poster will evaluate the role of the Yorkshire School of Surgery as an effective means of teaching and assessing the Senior House Officers and make recommendations as to how the School, its trainers and trainees could develop in order to fulfil the needs of basic specialist training outlined in 'Modernising Medical Careers'.

Problem based learning sessions for high school students: are they ready for medical school?

Keywords: *pbl, med school applicants*

Authors: *Centeno, Angel, Primogerio, Cecilia, Irañeta, Dolores.*

Institution: *Facultad de Ciencias Biomédicas, Universidad Austral*

Summary: In many developing countries, there is a widespread assumption between faculty members (mainly in the basic sciences) that high school students are not sufficiently prepared to start medical school. The alleged reasons are an insufficient high school academic level and a lack of utilization of teaching strategies that promote active and autonomous learning.

Objective: To analyze how students perform in a problem based learning session and how they perceive its usefulness.

Methods: We organized and ran a problem based learning session, with a traditional small group tutorial, with 148 senior high school students who were considering their application to medical school. After the session we administered a survey asking how they liked the activity, what the most remarkable features they perceived were, and what they had learned.

Results: The technique was new to all students. 138 found it useful, productive and enriching. Sixty three percent (93 students) considered it active, dynamic and didactic, and enjoyed sharing opinions and knowledge with other students. Fifty nine percent recognized they learned how to start reasoning in a clinical context, 47 percent acquired theoretical and 30 percent practical knowledge. Sixty three percent said the session reinforced their decision to study medicine.

Conclusion: High school students benefited from a PBL session enjoyed it, learned how to reason in a clinical context, and learned theoretical and practical contents related to the case. These findings do not confirm previous beliefs that students are ill prepared to start their medical studies.

Turning Teachers into Scholars

Keywords: *medical education research, scholarship in medical education*

Authors: *Morrison, C., Mereu, L., Kurtz, D., and Marrie, T.*

Institution: *Department of Medicine University of Alberta Edmonton, Alberta, Canada*

Summary: In an effort to promote research in medical education, the Department of Medicine surveyed all full time faculty with a major teaching commitment. The survey sought general and research interests in medical education as well as current level of medical education research. The survey was distributed to 53 members with at least a 35% or more job description of teaching. 70% responded. The most mentioned areas of general interest were postgraduate medical education and continuing medical education while the top two areas of research interests were postgraduate medical education and clinical skills. Eleven respondents indicated they had identified a research question in medical education but there was no pattern to these; they ranged from studying the comfort of students and residents with end-of-life decisions to comparing the effectiveness of rating scales and

checklists in OSCEs. Respondents skill needs focused on evaluation techniques and learning about research methodology and data analysis. Current involvement in medical education research was assessed by determining memberships and reading levels. 35% of respondents reported reading one or more articles in a medical education journal in the previous 6 months and 27% reported that they were members of the Canadian Association for Medical Education. 84% indicated they would be interested in attending a seminar series on research in medical education. These results will guide the Department in creating peer writing groups, building a bank of potential medical education research questions, and raising the level of scholarship in medical education.

Medical students' entry to the clinical environment as an experience of transition

Keywords: *Clinical teaching and learning; Apprenticeship; Transition, Curriculum; Early experience; Professionalism*

Authors: *Mason G., Shacklady J., Davies I., Smithson S., Dornan T.*

Institution: *Salford Royal Hospitals and University of Manchester, Manchester UK*

Summary: Aim Characterise medical students' experience of entering the clinical environment.

Methods: Our problem based medical curriculum does not place students systematically in clinical environments until Y3. Eleven weeks afterwards, 111 students in one hospital were asked to describe: times when they had felt well or ill prepared; what had made them more or less well prepared; and how they could have been better prepared. We report a qualitative analysis of the 92 (83%) responses using a coding structure that emerged from the data.

Results: There was an AFFECTIVE DIMENSION: their experiences were 'exciting' and 'interesting'; also 'daunting' and 'confusing'. They had to ASSUME A PROFESSIONAL IDENTITY: know what to wear; 'fit in'; acclimatise to clinical surroundings. Clinical environments allowed them to APPLY KNOWLEDGE, which was 'more interesting', and helped them 'learn more'. They had to learn NEW WAYS OF LEARNING; use clinical resources and build links between theory and practice. They were helped by experiences OUTSIDE MEDICAL SCHOOL: previous experience of clinical environments and life experiences before mature entry to the course. INSIDE MEDICAL SCHOOL they found PBL, clinical skills teaching, and application tasks in the early curriculum helpful. They faced OTHER CHALLENGES such as long working hours, difficulty travelling, and tiredness. Many respondents would have liked preparatory experience earlier in the course.

Conclusion: We characterise entry to the clinical environment as a transition that involves adopting a professional identity, new ways of learning, and new contexts and routines. This study indicates how students could be better prepared.

Learning form our Medical colleagues

Keywords: *Regulation, appraisal, performance review, portfolio based assessment, personal / professional development plans, mandatory CPD*

Authors: *Brigden, D.*

Institution: *University of Liverpool / NHSE (Mersey Deanery)*

Summary: The Veterinary Profession is at a crossroads. Can our Medical colleagues gives us some direction? Veterinary medicine throughout the world has enjoyed a rapid upsurge in knowledge and technological advancement. However, in the United Kingdom the veterinary profession is regulated by an Act of Parliament that is 38 years old. With a revision of the Act now in prospect there is an opportunity to introduce changes already addressed by the medical profession, for example: appraisal / per-

formance review, portfolio based assessment, personal and professional development plans, mandatory CPD etc. These are novel concepts for a profession that has hitherto been the subject of cosy armchair reading and television soap operas !
Submitted for an oral or poster presentation

Working in Partnership - Training the Trainers

Keywords: *pedagogical issues, supported on line learning*

Authors: *Brigden, D.*

Institution: *University of Liverpool / NHSE (Mersey Deanery)*

Summary: This poster will review a range of courses offered for Healthcare professionals who have a teaching and learning facilitation role. It will look at short (one / two day) programmes dealing with specific pedagogical issues to the establishment of a supported on line distance learning programme leading to a Postgraduate Certificate in Teaching and Learning in Clinical Practice and an MA in Clinical Education.

Bringing Distance Learning Closer - a multi institutionnal appraoch to providing CPD for health professionals via an on line supported learning environment

Keywords: *distance learning, multi institutionnal working, CPD, supported on line learning*

Authors: *Brigden, D.*

Institution: *University of Liverpool / NHSE (Mersey Deanery)*

Summary: The presentation will commence by describing the establishment of a range of on line programmes by a partnership of Higher Education Institutions. It will review the need, the process and the emerging pedagogical issues. In addition it will provide opportunity to discuss the development of a climate of trust, common challenges encountered in professional education and the introduction of mentors to enhance the facilitation of learning

Student learns from student: an active learning model

Keywords: *active educational methodology, small group teaching*

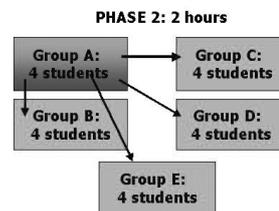
Authors: *Salvat I, Monterde S, Montull S*

Institution: *Department of Medicine and Surgery, Universidad Rovira i Virgili, Tarragona. Spain.*

Summary: Purpose: We propose an active educational methodology based on small group teaching directed to acquire and develop physiotherapist skills, specifically, communicative skills. This paper reports the results of the self-assessment of the experience.

Subjects: One hundred and sixty students from first and second course, who had been trained on palpation during the previous or the current year.

Methods: Qualitative and quantitative assessment of satisfaction and palpation was tested. First course students completed the questionnaire 4 months after the conclusion of the experience and second course students did it 1 year after. The didactic acti-



Activity was based in learning from a specific guide, in small groups of people and with the help of anatomical models. First, students were required to work on the palpation methodology in groups. Then, each student was asked to teach the rest of the groups in the class with the help of the teacher who guides and solves any doubts during the activity, only if required to do so.

Analyses: The statistical analyses were carried out using an SPSS statistical package, with a statistical level of significance of $p < 0.05$. The relation between variables was studied using Pearson's linear correlation coefficient.

Results: Student's feedback about the project was consistently positive. Subjective impression also showed great satisfaction.

Conclusion: This methodology presents several advantages such as to allow to save time, to increase motivation, to settle the concepts, to promote oral expression, to provide different palpation experiences and to learn to palpate and to communicate.

Tutor clinical practice nursery. A consensus agreement between teachers and clinical practice nurses professionals

Keywords: Tutor; learning clinical practice nursery, agreement teachers/ nurses professionals

Authors: Anton, M. Millan, J. Villanueva, JL Hidalgo, Cotiñano, P

Institution: Agencia Laín Entralgo para la Formación, Investigación y Estudios Sanitarios, (A.F.I.E.S.). Consejería de sanidad. Comunidad de Madrid

Summary: Clinical practice spend 50 % of the pregraduate studies in nurse university general degree. From point of view of students there are a dichotomy in the learning process, in clinical practice teaching allow the students to obtain technical abilities while there is theory learning in classroom. Assistance nurses teach the students in practice using a traditional method of observe and repeat. The process of integration practice and theory in the reality clinical practice isn't enough implemented. The need of integrate the practical considered in the education of nurse student oblige to rethink not only the educational objectives but also the people which will go with, facilitate and protect these process. The hospital and primary health based nurses are the main tutors in the clinical practices. To make more professional the tutor demand to define the basic requirements, to design the education that the tutor needs, to define their functions, to design the methodology for the evaluation of the student and for the support and follow up of the tutor and finally to consider different mechanisms of compensation. This Project by its own nature demand the active participation of clinical nurses and teachers involved in learning. AFIES is leading a Project of organization of the clinical practice education in health professions in Madrid health care system. This Project begins with general degree nurse studies and the active participation of eleven public and private universities, 25 hospitals of the national health services and 11 primary health areas. We present a consensus agreement of the practice tutor in nurse general degree

Multi professional development of a generic consultation skills assessment tool

Keywords: Electronic assessment tools, consultation skills assessment

Authors: Treadwell I, Van Rooyen M, Eksteen C, White G, Cameron D, Blitz-Lindeque J, Binedell T.

Institution: University of Pretoria

Summary: Overview The vast majority of undergraduate courses offered by the Schools of the Faculty of Health Sciences at the University of Pretoria include Consultation Skills. All students can benefit from a mutual understanding of what is expected during a good consultation and a generic checklist could enhance

the assessments made by lecturers and Standardised Patients (SPs).

Aims: To compile a generic consultation skills checklist for the Faculty of Health Science and test the reliability of scoring skills using this checklist on handheld computers.

Methods: The SPIG (Standardised Patients Interest Group) group of the faculty, on which medicine, dentistry, physiotherapy, nursing, radiography, occupational therapy and dietetics are represented, reached consensus on the format and items on the checklist through action learning: Main actions (10) branched to fit on a handheld computer Steps of which the actions are comprised in dropdown boxes -Remedial actions (coded) coupled with steps. The steps that a student needs to improve on are ticked and appear on a written feedback after the assessment, indicating the remedial actions s/he should take. Six lecturers and three SPs used the 8th edition of the checklist electronically to assess 10 videotaped SP encounters. After having assessed each encounter the student's performance was discussed to reach consensus on the rating against which the electronic ratings of the participants were then measured.

Results: The final checklist as well as the degree of agreement between the assessors will be discussed at the conference.

Using standardized patients to teach rational drug prescribing

Keywords: drug prescribing, standardized patients, teaching.

Authors: Servin Hernandez, D.

Institution: Escuela de medicina. Universidad Panamericana

Summary: Rational drug prescribing is an important part of medical education. This is a longitudinal study (2000-2003) on the use of standardized patients (SPs) to improve teaching of prescribing skills. Sample were 110 second and third year students, they had completed three learning phases: I. Basic pharmacology; II. Principles of drug selection; III. Pharmacotherapy. Students had all three encounters, one for each learning phase, with SPs in a clinical station. Students worked a guide prior to this encounter, and after, they are given feedback. Clinical scenarios portrayed by the SPs were diabetes mellitus type II (DM) or hyperthyroidism (HT). Student performance was measured with validates checklists and questionnaires: to define the patients problem (PP), to specify the therapeutic objective (TO), to choose a drug to particular patient (CHD), to give instructions (GI), and to monitor the treatment (MT). The results showed improvement in all variables (Table I). By using SPs, we make the learning rational drug prescribing more clinically relevant. Interaction with SPs teach to student how to apply the principles of pharmacology treatment.

TABLE I. STUDENT PERFORMANCE IN CLINICAL STATION.

	LEARNING PHASES.					
	I		II		III	
	DM	HT	DM	HT	DM	HT
PP	54±12	46±10	71±9	60±7	88±6 *	81±8 *
TO	32±9	26±8	62±10 *	58±9 *	83±7 *	78±6 *
CHD	17±9	17±9	52±11 *	52±11 *	80±8 *	80±8 *
GI	11±21	8±25	69±12 *	57±16 *	90±5 *	86±8 *
MT	39±38	35±28	71±21	72±18	90±6	85±10

(Mean ± SD); * p < 0.05, Wilcoxon Test

Journal article writing exercise for medical students using a brief survey during family medicine clerkship

Keywords: *Education, medical, journal article, writing, data collection, students*

Authors: *Lee, S., Jeong, H.J., Choi, S.H., Kim, Y.J. Baik SW.*

Institution: *Pusan National University, College of Medicine*

Summary: Purpose: This paper describes our experience with respect to using a brief survey as a tool for teaching journal article writing to medical students participating in a clinical curriculum in family medicine.

Methods: Medical students carried out brief surveys during a clinical clerkship in the Department of Family Medicine from 1998 to 2000. Individual students determined the themes for their surveys. Before the surveys were conducted, a lecture about the meaning and process of surveys was given to ensure sufficient understanding on the part of the students. The subjects of the survey were outpatients, nursing personnel, medical students, nursing students, and others. The topics of the surveys were classified according to 17 chapters and 7 components of the International Classification of Primary Care (ICPC).

Results: The ICPC components most commonly chosen by the students for their surveys were diagnostic screening and prevention (89.0%), treatment, procedures, medication (5.7%), and complaints and symptoms (5.3%). By chapter, the surveys were classified as social (64.6%), psychological (12.6%), and metabolic and endocrine (6.5%). Among social problems, the most common were other social problems (35.4%), health care system/access (20.9%), problems with education (13.9%), and relationship problems (partner) (12.7%). The majority of the medical students had a positive response to the survey experience.

Conclusion: The authors findings suggest that teaching journal article writing using a brief survey seems to be useful in enhancing medical students' understanding of writing for a journal.

Teaching the teacher: a course for residents and medical specialists on teaching during clerkships

Keywords: *faculty development / teacher training*

Authors: *Fluit, L.*

Institution: *UMC St Radboud Nijmegen*

Summary: Introduction: In 1995 the University Medical Centre Nijmegen started a new medical curriculum, based on latest educational concepts. As a result of these changes the role of the medical teacher has been changed. The question is how we can prepare teachers for this new role.

Method. A one-day course is developed for residents and medical specialists who are teaching medical students during their clerkships. The course is offered 6 times a year with 18 participants per course. Participants practice in small groups how to supervise and assess medical students, give feedback on a medical record, organise ward rounds and how to be a good role model.

Evaluation. The programme is evaluated by a questionnaire. To evaluate the outcome participants are asked to formulate what they want to put into practice. Six months later interviews take place to assess to what extent this is achieved.

Results. In 2003 80 medical specialists and 6 residents from 13 specialties attended the course. Participants are very positive about the programme. Interviews show that they spend more time on teaching after the course by organising extra feedback sessions, more active involvement of the student, more time for feedback. Experienced problems: after some time old routines return, other members of the staff didn't attend the course and a one day course is too short to get really familiar with the teaching skills

Conclusion. Our first results demonstrate that this course can be considered successful. Follow up courses are necessary to further improve their teaching skills. In the near future this course will be mandatory for all medical teachers who are involved in the clinical clerkships.

Team development for working together in health & social care - a model for newly qualified community based professionals

Keywords: *Educational Partnership, Community-based, Interprofessional*

Authors: *Anderson, E.*

Institution: *Leicester University*

Summary: An educational partnership between two Universities and health and social care organisations enables GP registrars, training Health Visitors, District Nurses, Practice Nurses and newly qualified Social Workers to develop skills in inter-professional teamwork. The evaluated model, facilitated by a team of multi-disciplinary tutors, comprises a two-day programme of experiential learning and inter-active group work underpinned with theoretical concepts. The learning is based in disadvantaged inner-city areas. Cohorts of 24-36 work in inter-professional groups of 4. Each group visits a patient* whose wellbeing depends on effective collaboration with at least 4 agencies. The group separately interview the service providers, critiquing their involvement and analysing team-working. Learners reflect their findings on theoretical teamwork principles and inter-personal communication. They identify barriers and solutions to effective team-working. A semi-structured questionnaire is distributed pre and post course. Evaluation from 4 cohorts, (<100 learners) demonstrates significant perceived knowledge gain across all 9 learning outcomes (P<0.001-P<0.000). No negative outcomes are identified. Learners gained insights into the importance of inter-professional collaboration. "I have been able to examine my role and function within a team", DN. "I have been reminded of the importance of communication within teams aiming for the same goal", HV. "I will consider more appropriate referrals and use of allied services", GP Registrar. "I have become more aware of the multi-disciplinary approach and its benefits to service users", SW Learners felt inspired to promote teamwork; improve inter-agency communication; make greater use of allied services; listen and respect other agencies; compromise within the short-comings of resources, and value inter-professional approaches to benefit patients. *For the use of this presentation the word patient will be used although in teaching situations appropriate terms will be used to reflect student preferences.

Appraising undergraduate medical students - what sort of advice do they need?

Keywords: *personal development, appraisal, undergraduate medical student*

Authors: *Murdoch-Eaton, D., Pell, G, Roberts T.*

Institution: *University of Leeds*

Summary: Formal appraisal was introduced for all 1st and 2nd year students in response to a recognized need to enhance personal development early in their undergraduate career. Student preparatory material included guidelines facilitating reflection on academic progress and settling into university, together with feedback from personal tutors. Outcomes were documented on appraisal record forms (completed in 100% n=488), and from feedback questionnaires (81%). Overwhelmingly positive student evaluation of appraisal sessions was received with 96% responding that the feedback was useful and accurate. 63% considered that issues covered during this appraisal would alter study habits. 54% of 2nd years reported that they had made changes based on the previous years' appraisal session. Maturation in preparation and making effective use of appraisal was reflected in greater agreement that sessions were of ade-

quate duration in year 2 ($p < 0.01$). Study skills techniques were discussed with 70% of 1st years, 68% of these goals set were recorded as achieved by year 2, with 40% of 2nd years setting different study skills goals for the next year. Guidance about work-recreation balance was addressed in 25% of 1st years with achievement of 50% of these goals by 2nd year. Resolution of time management and organizational skills goals was not achieved in some 60% of the 27% of 1st years with identified problems. Only 11% of personal difficulties affecting 25% of 1st years remained problematic in 2nd years. Formal appraisal has significantly contributed to focused formative feedback and personal development of medical students early in their undergraduate career.

An Undergraduate Research Program in Health Sciences (BHSc): Reliability, Validity and Student Perceptions of it as a Pre-medical Program

Keywords: admissions, pre-medical programs

Authors: Kent Hecker and Claudio Violato

Institution: University of Calgary

Summary: Purpose. 1) To investigate the reliability and validity of the admission process for a direct entry undergraduate (BHSc) research program in health sciences delivered by a Faculty of Medicine, and 2) Assess student motivation for entering the program.

Method. Descriptive statistics, analysis of variance, and linear regression were used to analyze the admission data of the 2003-04 inaugural class ($n = 58$, mean age = 17.9 [SD .99] years, 64% female). The independent variables were high school grades, supplementary application information (SAI), and overall raters ($n = 4$) score. The dependent variable was 1st term (Fall) GPA. Nearly one-half (47.6%) indicated that their motivation for the program was to eventually gain admission to medical school.

Results. Internal consistency reliability (alpha) of the raters' protocol was 0.78. Face and content validity were determined to be adequate. High school grades and overall rater score were the best indicators for 1st year performance (multiple $R = .67$; 45.3% of the variance).

Conclusions. A combination of reviewer mark and admission grades has criterion-related validity for selection and screening (i.e., predicting success in the 1st year). The types and number of comments in the SAI were not predictive of 1st year performance. Although the major purpose of the BHSc program is to educate future researchers for the health professions, nearly half of the students perceive it as a stepping-stone to medical school.

Psychological types and learning styles of students entering medicine

Keywords: medical students, personality, learning styles, MBTI

Authors: Bitran, Marcela; Zúñiga, Denisse; Lafuente, Montserrat; Mena, Beltrán.

Institution: Pontificia Universidad Católica de Chile

Summary: Psychological types and learning styles of students entering medicine. Marcela Bitran, Denisse Zúñiga, Montserrat Lafuente and Beltrán Mena, Escuela de Medicina, Pontificia Universidad Católica de Chile

Background. Psychological features and learning styles influence the way we process information. Knowledge of these variables may help teachers and students improve learning. **Aim.** To know the psychological types and learning styles of students admitted to medicine. **Methods.** The Myers Briggs Type Indicator (MBTI) and the Kolb's Learning Styles Inventory (LSI) were administered to 270 freshmen admitted to medical school between 2000 and 2002. **Results.** Fifty five percent of our students are concentrated in 4 of the 16 psychological types described. These stu-

dents base their decisions mainly upon logical and objective reasoning (Thinking), and face life in a structured and decided way (Judging). Only 10% of the students have the 'opposite' set of preferences. These students privilege harmony and teamwork (Feeling) and have a flexible attitude towards life (Perceiving). The remaining 35% have types with preferences Thinking-Perceiving and Feeling-Judging. With regard to learning styles, more than two thirds of our students are Assimilators or Convergers. These learners assimilate large amounts of information and extract the main concepts, without paying too much attention to practical details. In general, our students are more reflective than active; they evaluate thoroughly all alternatives before acting. **Conclusions:** The psychological types and learning styles of medical students cluster around specific patterns.

Consideration of these variables may provide teachers and students with a valuable tool for improving learning.

Are psychological types and learning styles of medical students relevant to their academic performance? A retrospective study

Keywords: medical students, academic performance,

personality, MBTI

Authors: Marcela Bitran, Denisse Zúñiga, Montserrat Lafuente and Beltrán Mena

Institution: Pontificia Universidad Católica de Chile

Summary: Are psychological types and learning styles of medical students relevant to their academic performance? A retrospective study. Marcela Bitran, Denisse Zúñiga, Montserrat Lafuente and Beltrán Mena. Escuela de Medicina, Pontificia Universidad Católica de Chile.

Background. The relative difficulty we experience while learning different concepts and skills depends, among other things, on our psychological characteristics and learning style. This may be particularly true for medical students, whose formation involves the acquisition of multiple cognitive, affective and psychomotor skills. **Aim.** To determine if psychological features and learning styles of medical students are associated with their academic performance. **Methods.** The psychological preferences and learning styles of 66 students of the 2001-graduating cohort were determined with the Myers Briggs Type Inventory (MBTI) and the Kolb Learning Style Inventory (LSI), respectively. Academic performance was assessed by both, the National Medical Score and the marks obtained during the 3 cycles of undergraduate training: basic (1st to 3th year), Preclinical (4th and 5th year) and clinical cycle (6th and 7th year). **Results.** The psychological preferences, together with the sex of students are associated with the National Medical Score, and the performance during the pre-clinical and clinical cycles. In men, the features associated to high academic performance are the interest and ability to communicate with people, and the concern for harmony (Feeling); in women, is the tendency to function in a systematic and orderly way (Judging). Surprisingly, no relationship was found between learning styles and academic performance. **Conclusions.** The finding that the psychological preferences of medical students are relevant to their academic performance opens a new perspective to analyze medical education and design programs aimed at improving learning.

Psychological types: medical and engineering students are similar, and differ from architecture, psychology and journalism students

Keywords: *medical students, psychological types, MBTI, freshmen*

Authors: *Marcela Bitran, Denisse Zúñiga, Montserrat Lafuente and Beltrán Mena*

Institution: *Pontificia Universidad Católica de Chile*

Summary: Background. Studying the psychological types of medical students, we found a striking similarity between 3 consecutive entering cohorts. A judgement style based mainly upon logical and objective reasoning (Thinking), and a structured and decided way of life (Judging) characterize the majority of our freshmen. This could mean that this type of students is attracted either specifically to Medicine, or, in general, to careers with high admission requirements. Aim. To compare the psychological types of students entering medical school with those entering Engineering, Architecture, Psychology and Journalism (careers with similar admission difficulty). Methods. The psychological types were determined with the Myers Briggs Type Indicator (MBTI). This instrument was administered to 850 freshmen admitted to the above-mentioned careers in the Pontificia Universidad Católica de Chile in 2000 and 2001. Results. The distribution of psychological types of students entering Medicine and Engineering is similar, and differs from that of students admitted to Architecture, Psychology and Journalism. Medicine and Engineering attract a larger proportion of concrete and practical students (Sensing) that have an objective (Thinking) and systematic (Judging) approach to study and life. Unlike Medicine, Psychology and Architecture attract a larger proportion of youth interested in the patterns and possibilities (Intuition) rather than in practical information, and who face life with an open and flexible attitude (Perceiving). Conclusions. The psychological types of freshmen are related to their career choice. These psychological variables, therefore, may be relevant to the students' vocational preferences and, possibly, to their future specialty choices.

The relationship between self-efficacy and academic achievement in medical students

Keywords: *The relationship between self-efficacy and academic achievement in medical students*

Authors: *Lee, YM Lee, MK Kim, BH Kim, MK Ahn, DS Ham, BJ*

Institution: *College of Medicine, Korea University College of Medicine, Hallym University*

Summary: More recently, the definition of self-efficacy has evolved to include an internal-external distinction. Armitage and Connor (1999) define self-efficacy as the internal evaluation of competency and the ability to perform the behaviour. Through literature and factor analyses, we have defined self-efficacy as having three components- confidence, self-regulation skills, and preference for difficult tasks. For this research, three features of alexithymia were distinguished- difficulty in identifying feelings, difficulty in describing feelings, and difficulty with external (behaviour)-oriented thinking. Believing that self-efficacy is a prerequisite for academic success, we set out in this research to analyze the effects of alexithymia and depression on self-efficacy. Our subjects consisted of 122 medical students at Korea University Medical College. We used three survey instruments: Self-efficacy Scale, Toronto Alexithymia Scale (TAS), and Beck Depression Inventory. Variables including age, gender, motivation for entering medical school, degree of satisfaction with school life, and the social economic status of their family and their effects on self-efficacy were additionally studied. Our results

show that there is a positive correlation between alexithymia and confidence and a negative correlation between alexithymia and self-regulation skills. There were no correlations between depression and the three facets of self-efficacy. Wanting to help people (motivation for entering medical school), a high degree of satisfaction with school life, and high social economic status all correlated positively with higher levels of self-efficacy. And finally, self-regulation skills correlated positively with academic achievement.

Defining Competence in Family Medicine Using the Key Feature Approach

Keywords: *competence, family medicine, key feature*

Authors: *Allen, T, Brailovsky C, Lawrence K, Crichton T, Carpentier MP, Visser S, Chung C, Rainsberry P.*

Institution: *Laval University The College of Family Physicians of Canada, and the Centre d'évaluation des sciences de la santé de l'Université Laval, Québec, Canada*

Summary: Practical limitations suggest that assessment of competence should concentrate on situations most likely to distinguish between competent and incompetent candidates. The College of Family Physicians of Canada has previously identified a series of topics considered particularly valid for assessment of competence at the certification level. A key feature approach was used to further define competence for 57 topics on the priority list. This approach identifies the essential or critical steps in the resolution of a clinical problem. Each key feature was classified according to both the dimensions of competence and the phases of the clinical encounter that it assesses. Practicing family physicians have previously described competence in terms of five skill dimensions and eight phases of the clinical encounter. An average of 7.8 (range 2 to 12) key features were generated per topic. Each key feature assessed one or two dimensions of competence in one or two phases of the clinical encounter. The results describe the dimensions of competence that are most pertinent to assess for each topic. The majority of the key features concern clinical reasoning skills, but others address the other four dimensions important to competence in family medicine. Competence is mostly identified with diagnosis (62% of key features), as opposed to treatment. The key feature approach permits us to select and to direct development of valid items that will test the various competencies included in an examination design. We also expect it to improve efficiency in achieving acceptable levels of reliability in high stakes certification examinations.

Skill dimension	Key features testing a skill/phase	% of all Key features
Patient centered approach	115	19%
Clinical reasoning	362	59%
Communication skills- includes education	26	4%
Reliability	99	16%
Professional qualities	22	3%
	622	99%
Phase of clinical encounter dimension		
hypothesis generation	115	19%
history (data collection or gathering)	98	15%
physical (data collection or gathering)	24	4%
investigation (data collection or gathering)	41	6%
diagnosis (data interpretation)	128	19%
management/ treatment	199	31%
follow-up	39	6%
referral	10	2%
	651	100%

What are the best teaching methods in CME programs?

Keywords: *Teaching Methods, Specialized Doctors, Continuing Medical Education*

Authors: *Shirazi, M.*

Institution: *Tehran University of Medical Sciences*

Summary: What is the best teaching method during Continuous Medical Education programs?; Specialized physicians' point of view

Introduction: In the current educational system, considering the economic aspects and rational utilization of manpower is a neces-

sity. In this respect determining priorities and the latest educational methods in Continuing Medical Education (CME) programs allows for optimum use of limited available resources.

Purpose: The Aim of this study was to determine the best teaching methods as well as the best CME programs in Tehran University of Medical Science (in 2002) from physician's view point.

Method: This was a descriptive, cross-sectional study. The questions were focused on priorities in using different teaching format during continuous medical education, as well as priority in using the currently applied methods for CME. The validate questionnaires were distributed among all specialized physicians of different departments who were involved in CME programs, and were gathered after being completed. Data were analyzed by using SPSS.9 software.

Results: From 1535 distributed questionnaires 1434 were gathered (response rate =93%) the mean age was 47.8 years (SD=11.5). 65.6% were male. The mean working duration was 16 years (SD=10.8). The best method was giving lectures accompanied by video (58.5%) and the best kind of CME programs was using organized and planned programs (48.8%). The best teaching method for CME was related to age and gender of specialized physicians.

Conclusion: The reason of choosing "lectures accompanied by video" is probably due to lack of knowledge about the newest educational methods in continuous medical education. Thus it is recommended that by performing more comprehensive studies, new methods of teaching would be introduced to specialized physicians.

A comparative study on the opinions of GP's and specialists regarding CME programs in Ahvaz, Iran

Keywords: CME programmes-Opinion physician

Authors: Motlagh, M.; Shakurnia, A

Institution: Ahvaz University of Medical Sciences

Summary: In the last decades CME as an inseparable part of any organizations has been an area of concern. Confirmation of CME law led to arrangement of educational programs by the people in charge to promote the professional performance. Despite the achieved successes the ideal goals are still desirable. To find a deeper insight in designing the CME program this comparative study on GP's and specialists' opinions to CME programs was done. This descriptive study was carried out on 20% of medical population of Khozestan province, randomly selected total population samples 534; 304 GP's and 203 specialists. A questionnaire of 55 closed questions was asked. The collected data was analyzed by SPSS relative Frequency, t-test and ANOVA. The opinions of both GPs and specialists were similar. 63.2% GPs and 65% specialist were satisfied with CME programs. The only difference noticed related to the lecturing and presentation of the materials ($p=0.01$). In connection to the content of programs only 67% GPs and 59.4% of specialists announced their satisfaction. The informational services were criticized and granted low credits by 55.6% and 57.6% respectively. 80.02% GPs and 79.4% specialists believed that the endemic diseases, the principles of drug prescription and pharmacology should be included in CME program on a large scale. About half of the studied population granted very low credits to the performed needs assessment in program designing of CME. They claimed a kind of disassociation between content of program and environment needs of participants. The finding showed that there is a correlation between the GPs and specialists opinions on CME programs. They also suggested an organized need assessments should be carried out to develop an educational programmed, employing efficient and reliable lecturers.

Learning to Solve Problems in Clinical Practice

Keywords: Learning. Problems. Clinical. Practice

Authors: Quintanilla Martínez, M. Enriqueta Bernaus Anna Guillamet Araceli Fernández

Institution: EUI Vall d'Hebron

Summary: In the Escola Universitària d'Infermeria (EUI) (University Nursing College) Vall d'Hebron, Barcelona, Spain, a change in the teaching methodology was initiated. The traditional teaching method was replaced by a method based on Problem-Based Learning (PBL). This change was started in 2002 and will be totally implemented in the centre in 2005. It has meant that structural and operational modifications have had to be carried out in order to integrate the new methodology into the clinical learning process. The following strategies have been adopted in order to introduce this change in methodology:

1. The creation of a new structure of organization.
2. Channels of communication have been set up with management and their supporting teams in those centres involved with the new project.
3. The basic profile of the tutor has been drawn up, and the offer of specific training for tutors concerning both their roles and reflective functions has been carried out.
4. Documents have been elaborated in order to evaluate clinical practice drawing from its objectives. The evaluation consists of five objectives, subdivided into specific groups, with markers to facilitate evaluation, concerning competency. As experienced by the tutors from the EUI, greater involvement of professionals and services for the education of the students has been obtained by these strategies. Moreover, the accreditation by the different clinical practice units is made easier, and because the tutor is nearer the student has greater access to him/ her. This method helps the student to learn how to resolve problems in clinical practice and to reach a level of competence.

Effectiveness of sanitary education based on experience workshops and psychopedagogical training

Keywords: education, diabetes-psychopedagogical training.

Authors: Hernandez Anguera, J. Ansa Echeverria, X.

Basora Gallisa, J. Piñol Moreso, JL.

Institution: Institut Català de la salut

Summary: Aim: evaluate the effectiveness of sanitary education on metabolic control and life quality of diabetic people in Catalonia through educational activities based on experience workshops and training on psychopedagogical aspects.

Subject and method: Design: three workshops were organized during a period of one year and a half. Workshops target to sanitary people, were based on self-learning experiences, working on tactile experiences, visual lack, overweight, and many more. On the same way aspects as transactional analysis and motivational interview were contemplated. After this intervention we compared results between control group opposite to people where intervention were done.

Placed: Primary Health Care, 8 Health Centers. **Subjects:** 363 diabetic people, 48 nursery and 47 doctors. **Measurements:** A1c, Diabetes attitude scale (DAS-3sp or DAS-3cat), Quality of life test (DQoL), Number of casualties or hospital admittance related to diabetes, Lipid measurement, Obesity, Blood pressure and smoking habits.

Results: Statistical differences were found on intervention group in the following metabolic measurements: A1c, LDL cholesterol, HDL cholesterol and Tryglicerids; the improvement of BMI index gets quasi statistical signification. The direct and indirect measure of Quality of life improves on all items of DQoL test as well as

in this group decreases the number of casualties on 2/3 and the hospital admittances on 1/3 opposite to control group. According to analysis of matched data the improvement of results is still higher (including systolic and diastolic blood pressure, total cholesterol, BMI index (statistical significance) and tobacco consumption (non significant)). Supported by a grant of F.I.S. (Fondo de Investigaciones Sanitarias) expediente number 00/0270.

Problem based learning in undergraduate teaching of anaesthesiology

Keywords: *Problem based learning*

Authors: *Garcia-Guasch R, Lucas M, Moret E, Canet J, Llubia C, Melero A, Llaserà R, Massó E, Franco T, Cubells C, Roca G, Hinojosa M, Escudero A*

Institution: *Hospital Universitari Germans Trias i Pujol*

Summary: Introduction and Aim of the Study. The aim of the study was to analyse the undergraduate students' evaluation of whether PBL helped them to understand Anaesthesiology better and start with the whole syllabus of Anaesthesiology if the evaluation demonstrated a clear advantage over other methods.

Material and Methods. The study covered two consecutive academic years (2000-2002). The teaching programme combined: classroom lectures, practical training in the operating theatre and PBL seminars. During the PBL seminars three problems were presented: general anaesthesia, regional anaesthesia and critical care. The students were divided into groups of 10. They searched for the relevant information, solved the problems and discussed them under the guidance of a tutor. At the end of the teaching programme the students filled in a questionnaire to evaluate the PBL seminars. The three methods were scored from 0 (not useful at all) to 10 (very useful).

Results. Seventy five students (22 men and 53 women; mean age 23.52; standard deviation (SD) 2.73) filled in the questionnaire. Fifty one (68%) had never heard of PBL before. All of them (100%) considered PBL a positive experience.

Practical training in the operating theatre got the highest score (mean 9.02; SD 1.07), whereas the classroom lectures got the lowest score (mean 6.58; SD 1.46). PBL seminars got an intermediate score (mean 8; SD 0.9). Ninety percent showed clear preference for PBL over classroom lectures. The students evaluated PBL positively in terms of participants' knowledge, clinical reasoning, bibliographic search, satisfaction and fun. However, they complained that PBL is time consuming, lacks theoretical basis and written texts.

Conclusions. Students consider PBL a useful method of learning for a better understanding of Anaesthesiology and Critical Care. The good results has encouraged us to teach the whole syllabus of Anaesthesiology.

Reform at the out-patient training fields of hormozgan university of medical sciences

Keywords: *Out-Patient Training, Health Centers, Integration of health services and medical education*

Authors: *Safa, O. Noorian, A., Asghari, N.*

Institution: *Hormozgan University of medical sciences*

Summary: Training at the Urban Health Centers (UHCs) is one of the educational courses for medical and paramedical students. The importance of Out-Patient training to establish community-oriented students was our priority. This study aims to improve the quality of out-patient training, increase the educational role of specialized manpower at UHCs and emphasis on unanimity and integration of the responsibilities of the medical universities. Therefore, the criterias and indicators were established and the UHCs were assessed. The curricula for various skills were composed with the cooperation of the tutors of departments and the personnels of the UHCs. This led to improving the out-patient training and the health services.

A survey on learning styles of medical students (based on kolb theory) in Jahrom Medical university

Keywords: *learning style*

Authors: *Sedighe najafipour -Mitera Amini - Fatemahe najafipour - Mohamad Mehdi edalati*

Institution: *medical university*

Summary: A survey on learning styles of medical students (based on kolb theory) in Jahrom Med. Univ. 1382 Sedighe najafipour - Mitera Amini - Fatemahe najafipour - Mohamad Mehdi edalati. Introduction: One of factors may influence teaching learning process. Is individual learning style. Must consider students learning style to enhance their academic performance.

Method: This study was determination learning style between nursing and medical students of Jahrom medical university. In this study 196 students was participated. (58 male and 138 female). 88 of them were medical students and 108 of them were nursing students. We used kolbs standard questionnaire for this research. The results showed that there is no significant difference between learning style in female and male students ($p > 0.05$). There was significant difference between learning style in nursing and medical students. Nursing students had divergence learning style and medical students had assimilator learning style. There wasn't any significant correlate between course of study and learning style. Teacher must consider different learning style of students in their classes.

The Impact of the 2003 Severe Acute Respiratory Syndrome (SARS) Outbreak on Medical Students at the University of Toronto (UofT)

Keywords: *SARS, medical students, psychological impact*

Authors: *Mark S. Landis, M.Sc. and John W. Bradley, M.D.*

Institution: *Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada*

Summary: Background: The 2003 SARS outbreak significantly challenged the health care system in Toronto but also medical education at the UofT. The objective of this study was to evaluate the impact of SARS on UofT medical students.

Methods: An Internet survey was administered to UofT medical students from the class of 2004. The survey asked students questions about the psychosocial impact of SARS, its impact on their education, and the quality of social support, information and leadership provided during the outbreak.

Results: 95/188 medical students (51%) completed the survey. 15 (16%) respondents self-identified themselves as having been quarantined while 80 (84%) respondents were not quarantined (reflective of the actual distribution reported by the Faculty of Medicine (FoM). 85% of students had knowledge of students and staff who contracted SARS. 68% of students had significant fear of contracting SARS and fears of friends contracting SARS. 58% of respondents felt that having restricted access to hospitals affected their perception of the health risks posed by SARS and left them with a feeling of helplessness. Quarantined students reported greater difficulty with: concentration, sleep, personal fear, and social-isolation than non-quarantined students. 70% of students reported that the SARS outbreak had a negative impact on their medical training. Students reported heavy reliance on the emotional and social support of their fellow classmates, families, and the administrative offices of the FoM during the outbreak.

Interpretation: UofT medical students were significantly affected by the 2003 SARS outbreak. This study has implications for future crisis management in teaching centers.

Complexity and Educating the Health Professional

Keywords: 'Complexity', 'Teaching and learning'

Authors: Dr Jim Price Senior Lecturer in Primary Care

Institution: University of Brighton and Brighton and Sussex Medical School

Summary: Aim: Insights from the new 'science' of complexity are now being applied to many fields and in health complexity thinking has been highly influential on national policy (Institute of Medicine 2001). This poster examines how the changing educational needs of the modern health professional may be linked with changing educational theory, and examines how insights from the notion of complexity might help both educators and health professionals in this dynamic environment.

Methods: Drawing on educational literature, the roles of inter-professional learning, small group and problem-based learning are viewed through the lens of complexity. Methods which enhance non-linear and transformative learning are discussed, and the role of anxiety and arousal related to educational and teaching performance is also considered.

Conclusions: Insights from complexity act both as a guide for improving teaching and learning, and as a useful metaphor for the teaching environment in today's health services. Ref. Institute of Medicine (2001) Crossing the Quality Chasm, Institute of Medicine, National Academy Press, Washington DC

Evaluation of a free election grade about methodology of preparation and presentation of scientific works in Medicine

Keywords: grade, free election, new curriculum

Authors: José-Manuel Gómez, Ángel González

Institution: Hospital Universitario de Bellvitge

Summary: Purpose. We describe the implementation of free election grade in the Campus de Bellvitge of the University of Barcelona, having as main aims the preparation and presentation of a scientific work by last years students of Medicine. Methods. From 1998-99, the students are able to sign on free election grade named as "Methodology of preparation and presentation of scientific works". The subject basis are to learn the bibliographic sources, the way of resumming and including information with clinical cases and the application of statistical analysis. Results. The characteristics of the preparation of the works were the utilization of a high number of bibliographic references, the system of bibliographic citation standard and the high number of conclusions. The presentation was optimum and they used convenient technical audiovisual methods. The assessment resulted satisfactory in all cases. Conclusion. The development of a free election grade entails a qualitative change, which has got a big welcome among professors and students according to the new curriculum plans.

Multi-professional Input - health care outcomes on educational needs

Keywords: Behavioral Difficulties, Educational & Health Needs. ADHD (Attention Deficit Hyperactivity Disorder)

Authors: Professor M Memon*, David Brigden, Prof R Gupta, Mr M A Memon *Preston PCT-NHS, Bolton Institute, University of Central Lancashire, UK

Institution: Professor M Memon, Preston Primary Care NHS Trust, Preston Business Centre, Watling Street Road Preston PR2 8DY - England

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Summary: Multi-professional Input – health care outcomes on educational needs. The purpose of this paper is to look at ways of dealing with children with behavioural difficulties associated with management issues, educational and health needs. Generic models adopted in dealing with behavioural difficulties whilst

identifying specific health & educational needs, include approaches such as "Stay Calm, Adopt an Assertive Approach, allow them to 'Let off Steam, Listen Actively. Do Not Reward Rudeness or Abuse" Identifying specific needs is vital so as to deal with issues on a sustainable basis. Specific on-going behavioural difficulties can be an indication of health or educational needs. Parents, teachers, and healthcare professionals can provide input in these situations. Ideally different disciplines come together. -Inappropriate management of issues Sometimes aggression is a defence mechanism. In such situations the more one gives in, the more this gets worse. Previous learned behaviour masks poor communication or interpersonal skills. Management includes consistent approach to issues and avoiding mix messages, -Behavioural issues attributed to educational needs - learning difficulties Behavioural issues pertaining to learning difficulties will require appropriate educational assessment. Specific educational input will be required. -Medically related condition such as ADHD Specific behavioural issues pertaining to ADHD (attention deficit hyperactivity disorder) will require appropriate clinical / psychological & educational assessment. Medical with supportive educational & other multidisciplinary input will be necessary. In conclusion it is vital to identify specific areas of difficulty compounding behavioural issues otherwise health care & educational needs will not be addressed.

Propoussal of a new methodology of skills acquisition for pregraduate students in weekly seminars

Keywords: Pregrade education; student focussing; skills acquisition.

Authors: Fernandez, I.

Institution: Facultad de Medicina

Summary: Propoussal of a new methodology of skills acquisition for pregraduate students in weekly seminars. Isabel Fernández, MD; Federico Ferrando, MD and Enrique Macri MSC (Eng.) Medical Education Department . Medical Department: "Clínica Médica A". Hospital de Clínicas, Facultad de Medicina. Universidad de la Republica Oriental del Uruguay.

Summary: In the actual reality of pregraduate education in the University of the Republic of Uruguay School of Medicine, we introduce an innovating educational methodology of proactive characteristics, focused on the student, in contrast to the traditional reactive methodology, focused on the teacher. We present a methodology to reinforce and develop student skills based on a list of specific educational goals (prevalent and paradigmatic) in model thematic units, delivered to the students before the seminars. We designed evaluation grids for each objective of each thematic unit related to a patient previously selected by the teachers and unknown by the students, in order to measure their reaches in terms of contents and communication skills. This methodology was applied in a weekly clinical presentational instance of about 2 hours last, in groups of 10 students of the third year clinical class (4 groups total), in which one student was selected randomly to perform each one of the goals of the chosen thematic unit. We subsequently used presentational and audiovisual feedback technics. Results are presented based on the observation of the students behaviour facing this new method and the possible reaches.

Scholars Collaboration in Teaching and Learning

Keywords: faculty development, reflective practice

Authors: Wolpaw, T., Wolpaw, D., Gelula, M.*

Institution: Case Western Reserve School of Medicine*University of Illinois at Chicago

Summary: Introduction: The reflective practice model of profes-

sional development places responsibility for success of the learning endeavor on collaborative engagement between learners and teachers. Could a medical school faculty development program partner faculty and students to study teaching and learning?

Objectives:

- Create community of faculty and students who develop as educators and create innovative projects.
- Provide dedicated time/support for scholarly activities, self-reflection, team-building, feedback.
- Enhance knowledge and skills in teaching and learning.
- Enable development as education leaders.
- Enhance educational scholarship and productivity.

Methods faculty, 10 second year, 10 fourth year medical students were selected based on commitment to medical education. Faculty submitted education project proposals. Triads were formed - one faculty member and one student at each level - based on common project interests. Triads participate in a one-year faculty/student development program in teaching and learning, including structured monthly curriculum and project implementation. Five senior faculty are mentors. Several levels of interaction occur. Faculty receive curricular/teaching feedback from learners in pre-clinical and clinical years. Students gain insights on teaching and learning from faculty. Project groups create curricular innovations for the school. Pre/post program surveys were done.

Results:

- A faculty development program can comfortably partner faculty and students.
- Faculty welcome and respect student input.
- Students are interested in developing as educators and participate equally.
- Faculty-student teams enhance project quality and effectiveness.

Conclusion: A faculty development program including faculty and students creates a safe environment for active exchange of ideas between teachers and learners.

Learning style as a predictor of academic success

Keywords: *Learning styles, basic learning competences*

Authors: *Penzo, W.*

Institution: *Facultad Medicina. UB*

Summary: We present a study made with new entrance students of Medicine, with two purposes. In the first place, to characterize these subjects in academic performance, knowledge, competencies and learning styles; in the second place, to identify, the risk or success factors of subjects that have obtained the best and the worst results in the initial exams in medical studies. The obtained results make apparent the relevance of the scores in the selective exam, and the interest of the learning styles and preferences in the characterization and prediction of academic performance in our Medical school.

Measurement of the capacity for analogical transfer in students of the Faculty of Health Sciences, Trinity College Dublin. Exploration of correlations between capacity to transfer, curricular strategi

Keywords: *analogical transfer Health Sciences*

Authors: *Kelly, M., Shanley, D.B, Patterson, A. Coffey, S.*

Institution: *Trinity College Dublin*

Summary: Aims of the study

1. To establish the capacity of first year students from the Faculty of Health Sciences for (1) summarising and comparing test stories (schema formation). (2) recognition of analogy in these problem

stories1, (3) application of the analogous solution to a previously unseen analogous problem(transfer appropriate processing).

2. To retest the student groups after 18 months in their chosen courses.

3. To seek a correlation between performance at first and second year assessments and the ability to recognise analogues and transfer solutions.

The study included 218 students (Medicine = 40, Dentistry = 33, Nursing = 59, Physiotherapy = 24, Occupational Therapy = 38 and Clinical Speech = 24). Testing lasted one and a half hours. Students were told that all tests were designed to elicit information about cognitive processing and learning approaches. They were not cued as to a special relationship between any two tests. The test set was completed so that the two analogous problem stories and the third unseen analogue were separated by three learning approaches questionnaires. In the first test 26% of all students provided the analogous solution for the unseen problem. Medical students performed best with 62.2% transfer. No correlation was found between the ability to summarise and compare and capacity to transfer. Analysis of the 18 month retest and the correlation with assessment performance are in process and will be included in the poster presented.

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2. Kevin W. Eva, Alan J Neville, Geoffrey R Norman; Exploring the Etiology of Content Specificity: Factors Influencing Analogic Transfer and Problem Solving; *Academic Medicine*, Vol 73, No 10 / October Supplement 1998

Teaching bases on learning tasks: An alternativa to PBL

Keywords: *Functional knowledge, learning tasks, PBL*

Authors: *Penzo, W.*

Institution: *Facultad Medicina. UB*

Summary: Problem based learning (PBL) has been presented as the mean, and even the only, alternative to the so called "traditional" teaching, in a spurious controversy in which the two learning and teaching methods are compared as if they were monolithic and uniform entities.

As a matter of fact, PBL, as any other educational reform, is various and multiform both in its implementations as in its components. Any one of them is, supposedly, an answer to a problem of teaching in general, and not only of "traditional" teaching.

The work that we presented has two parts. In the first one we review the main problems of teaching in general and analyze how the PBL tries to give them answers.

The second part describes the organization of a course in medical and odontological studies whose teaching is based on functional knowledge, application tasks, students participation and group discussion and work. Arguments are present which support the claim of this kind of teaching as an efficient alternative to PBL.

'It's like shifting sand' – setting up inter professional learning within a secondary care setting

Keywords: *practice based, undergraduate interprofessional learning*

Authors: *Jackson, J.A., Bluteau P.A.S.*

Institution: *Warwick Medical School, Leicester Warwick Medical Schools. Coventry University, Coventry*

Summary: Patient care depends on effective team-working by junior practitioners, but how do healthcare students learn the practical aspects of working with colleagues of other disciplines, and in particular, how can they develop the best techniques for communicating with each other? One UK University (training

AHP and nursing students) linked with a neighbouring University (training medical students), a Primary Care Trust, and a Teaching Hospital to pilot a learning week aimed at enabling pre-registration health professional students to explore the care of a patient from a variety of perspectives. The planned activity was for students to spend a week working in a multi-professional group exploring and trying to optimise the care of an allocated patient. On each ward, taking part in this pilot study, the students were supported by 'experts' from their own disciplines. The role of the expert was to develop the student's understanding of the contribution of their profession to multi-professional working, whilst also ensuring the student's understanding of the unique role of their profession. The week culminated in a student-led multidisciplinary team meeting, overseen by the 'experts', who also made up a multidisciplinary audience to hear student presentations of the patient case studies. As might be expected, this pilot study encountered many obstacles in setting up a rich learning experience in the clinical setting. In this paper, the authors will discuss key issues of relevance to effectively embedding inter professional learning around the patient in future clinical training programmes.

From Spain to England: is cross cultural recruitment a solution to GP shortages?

Keywords: *cross-cultural, recruitment, GP shortages, support, retention*

Authors: *Rich Bregazzi Jamie Harrison*

Institution: *Postgraduate Institute for Medicine and Dentistry, Newcastle upon Tyne, UK*

Summary: Background Responding to GP shortages, 7 Spanish GPs were recruited into practice in NE England, in 2002. Doctors underwent a four month induction: a language course; supervision within a training practice; and peer group learning/support. They then took up substantive posts in the NHS, while continuing to attend weekly peer group meetings.

Aim: To learn about the Spanish doctors experiences, to inform the development of the recruitment scheme.

Method: A descriptive survey. Semi-structured, 1:1 interviews, focusing on challenges, support needs and retention in the UK.

Doctor's were interviewed following induction, then after 3-5 months of independent practice. Comprehensive field notes were taken. Responses were categorised into themes.

Findings: Support is required to find accommodation, jobs and schools for accompanying family. Doctor's want to select their final practice late in the process, with options and full practice information. Spoken/written English presents varying but continuing professional difficulties. Support needs continue post-induction. In-practice: longer consultation times; effective communication with colleagues. Peer group meetings: for personal and professional support. Social and cultural change present continuing challenges. To remain, doctors want to be happy in their work and integrated into society.

Discussion: Despite investment in selection and induction, doctors spoke cautiously of remaining in the UK. There may be incompatibility between the doctor's need for in-practice support, and the practices that need doctors. Cross cultural recruitment is not simply a numbers game; it involves meeting significant personal and professional support needs.

Jail house doc! : general practitioner registrars training in Frankland

Keywords: *General practice, recruitment, training*

Authors: *Illing, J. van Zwanenberg, T.*

Institution: *University of Newcastle*

Summary: Jail house doc! : general practitioner registrars training in Frankland prison. Background: Attracting doctors to prison work in England is difficult. Working with prisoners can be

stressful and the prison system complex. An innovative general practice placement was set up offering General practice registrars the opportunity to work at Frankland high security prison. Aim –The aim of this study was to identify the strengths and weaknesses of the placement.

Methods: Interviews were conducted with seven registrars, four GPs from the teaching practice, the prison medical officer and a prison nurse. Interviews were analysed qualitatively for common themes.

Results: The practice doctors acknowledged that working with prisoners could be stressful but recognised the value of working with this client group who had many similarities some patients from deprived inner-city areas. The registrars while engaged in general practice, identified an increased incidence of poor physical and mental health in prisoners and saw real opportunities to make significant health improvements for them. Registrars learned about dealing with difficult patients, drug misuse, mental health and the past lives of this deprived group. The study recommended that registrars who were not doing the innovative placement but who were doing one session per week at the prison as part of their regular training also benefited from a full induction into the prison system and information about personal security.

Discussion: All of the registrars said they would consider at least part-time prison work in the future. Experiencing work in a prison during training may improve recruitment.

Pastoral care: Are things how they should be?

Keywords: *pastoral care, confidentiality*

Authors: *Taylor, David and Jump, Liz*

Institution: *The University of Liverpool School of Medical Education Liverpool*

Summary: As part of a longitudinal study into pastoral care in higher education, we have been analysing medical student attitudes to the support they receive from their personal tutors. In Liverpool, every medical student is assigned a personal tutor from amongst the academic staff (clinical and non-clinical), who is expected to offer support and guidance throughout the undergraduate course. We are about to embark on a new system of pastoral care that includes an explicit emphasis on personal and professional development, and this study is intended as a baseline from which to assess progress. In 2003 we administered a questionnaire to first year medical students (198 responses), identical to a questionnaire used in 1995 and 1999 (two years before and after the introduction of a PBL based curriculum). The students completed two parallel Likert-style panels; "How it should be?" and "How it is". There were 25 question stems, each starting "Tutors should...". Responses were rated 5 (disagree) to 1 (agree). The most important attributes for a personal tutor identified by the cohort of students in this study were related to confidentiality and accessibility (see table). The longitudinal study has provided a rich source of data from which to develop pastoral care systems but indicate a number of priorities and some areas for further improvement.

Methodological training proposal for biographical-narrative interviews in teaching

Keywords: *qualitative investigation, biographical-narrative interviews, Family and Community Medicine Residency*

Authors: *Sánchez Sánchez, F. Sánchez Marín, F.J. Molina Durán, F. Martínez Ros, MT.*

Institution: *Grupo Aprendiendo Juntos. Unidad Docente de Medicina Familiar y Comunitaria. Gerencia Atención Primaria Murcia. SMS.España*

Summary: TITLE. Methodological training proposal for biographical-narrative interviews in teaching.

INTRODUCTION. The different methods used in qualitative investigation usually overlook the systematization of their use. This is necessary to:

- Improve the investigator's competence and experience.
- Homogenize and promote the richness, security and validity of the information obtained.

OBJECTIVE. To systematize a training process in biographical-narrative interviews as an information gathering tool in a teaching investigation project.

SUBJECTS. Study field: The Teaching Unit in the Family and Community Medicine Residency. Primary Health Care Management in Murcia, Spain. One interviewer. Six interviewees: voluntary professionals from the investigation development field. One trainer, who is a doctor in medicine and a communication specialist.

METHOD

1. The technical handling of a video-camera.
2. The carrying out of seven interviews focused on:
 - The interviewer (2) for his own identification (image, voice, gestures, movements, style...)
 - The interviewee (2) to assess his reactions.
 - Both (2) to assess their interaction.
 - About the interviewer (1) to understand better the interviewee's feelings.
3. Viewing and analysis process:
 - by the interviewer.
 - by the trainer.
 - by both of them.

RESULTS

- The improvement of the interviewer's capacity to carry out interviews.
- A higher systematization in carrying out interviews minimizing improvisation and variability.
- A more reflexive and deeper interaction between the interviewer and the interviewee, thus obtaining greater credibility in interviews.
- Creating new values: understanding, trust and dialogue.

Juggling concepts in teaching the patient centred consultation

Keywords: *consultation, patient-centered, skills training, teaching, evaluation*

Authors: *Couper, I & Hugo, JFM*

Institution: *University of the Witwatersrand & Medical University of Southern Africa*

Summary: The concepts of facilitation, clinical reasoning and collaboration provide a useful framework for the patient centred consultation. Facilitation describes the process of helping the patient to tell the story of the illness and open up issues pertinent to the problem. Clinical reasoning describes the process of problem solving and incorporates focused history taking, physical examination, investigations and a comprehensive assessment of the problem. Collaboration deals with the process of joint understanding, decision-making and action between the doctor and the patient. Specific skills such as open ended interviewing, problem solving, hypothesis formulation and testing, and participatory planning are linked to the three concepts. Integrating these concepts, like juggling three balls, creates a useful model for teaching and evaluation, and for clinical practice. A skills training approach is used to teach undergraduate and post graduate students. The paper describes our experience of using this model in teaching and in evaluation.

Educating professionals: synergy in developing an online unit about assessment and evaluation for legal and health professional educators

Keywords: *curricular frameworks, interprofessional education, virtual learning environments*

Authors: *Lawson M Kiegaldie D Webster L Jolly B Thomas I*

Institution: *Monash University*

Summary: Attempts to introduce interprofessional education commonly flounder due to timetabling problems or divergence in curriculum frameworks. This paper describes a project in which two diverse faculties solved course delivery problems by combining IT, content and pedagogical expertise. The result of this project is a shared curricular framework which paves the way for interprofessional initiatives. The faculties of Law and Medicine at Monash University each evolved a postgraduate course to support the professional development of their teachers – the Graduate Certificate in Teaching Law (GCTL) and the Graduate Certificate in Health Professional Education (GCHPE) respectively. However, the two Faculties had complementary areas of expertise. The teaching team within the Faculty of Law had developed an electronic virtual learning environment (Interlearn). The equivalent team in the Faculty of Medicine had developed teaching and learning activities related to the important processes of assessment and evaluation. These topic areas were considered core to each programme. Both Faculties needed to develop distributed or flexible learning, including online elements. An agreement was reached to pool these differing perspectives to create a product that would benefit both Faculties. This resulted in the same framework being delivered in two different professional contexts. Further development will focus on interprofessional activities targeted at both student bodies.

Assessing the learning needs of postgraduate training tutors in Madrid

Keywords: *Training requirements. Tutors. Postgraduate training*

Authors: *Álvarez Solanes I, Vicent García D, Carrasco González I, Millán Núñez-Cortés J.*

Institution: *Agencia Laín Entralgo. Consejería de Sanidad y Consumo. Comunidad de Madrid*

Summary: Objective: Ascertaining tutors demands of specific education to perform their role in the Comunidad de Madrid, with the purpose of planning their continuing education in the next years. Material and Methods: Descriptive and longitudinal study. Anonymous self-filled questionnaire. Participants: 296 tutors from primary health care (53%) and hospitals (47%) after attending a specific Course of Formation for tutors between years 2000- 2003. The study analyses topics expressed by the tutors as educational needs in de open questions using the qualitative technique of content analysis as well as the tendency shown along these years.

Results: The return rate of voluntary answers to direct open questions was as high as 81%, 34% of them demanding more than one need. There was a wide range of topics among the proposals, being evaluation (33,89%), communication skills (17,57%), educational methodologies (16,76%) and Evidence Based Medicine (10,4%) the most frequent topics chosen.

Conclusions: The tutors have a great interest in their training as the high percentage of answers demonstrate and multiple answers. This study revealed many well-defined needs that remains essentially constant during these analysed years period.

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The tutor in problem-based learning (PBL). An on-the-spot learning experience

Keywords: *PBL; Role of the tutor*

Authors: *Zapico Yáñez, F.*

Institution: *Escuela Universitaria de Enfermería Vall d'Hebron*

Summary: Title: The tutor in problem-based learning (PBL). An on-the-spot learning experience Authors: Zapico Yáñez, Florentina. Montenegro Marchante, Laura. Blanco Sánchez, Rafaela. Carulla Musons, Maria. Cónsul Giribet, Maria. Torrens Segalés, Rosa Maria.

Introduction: The objective of this poster is to describe the experience of tutor training through on-the-spot methodology. The Escuela Universitaria de Enfermería (University Nursing College) Vall d'Hebron, Barcelona, Spain, adopted PBL as a teaching methodology in the academic year 2001-2002.

Method: PBL is a learning methodology centered on the student, the students form small groups of 8/10 with a tutor. In their new roles the students, by teaching themselves, are responsible for their own studying and learning, and in forming knowledge, skills and attitudes which will allow them later in their professions to be able to integrate innovations and satisfy the new requirements that society will ask of them. The Role of the Tutor: Maudsley (1999) recommends that the tutor help reflect about the dynamics of the group and about what the students have been learning. She cites Margetson concerning the development of the role of the tutor: it is carried out by questioning, probing, encouraging critical reflection, suggesting and challenging in helpful ways but only where necessary. Our Experience: How does one learn? To change from the role of a highly knowledgeable instructor in the field concerned whose teaching method is basically centered on traditional teaching methods, to a role in which the learning process is centered on the student, and where the instructor becomes the pathway and guide to this process of learning to learn has meant a challenge for the teaching staff of our centre. This change in methodology, however, was adopted right from the start.

* Formal Training * On-The-Spot Training

This role has been evaluated from a questionnaire (Branda, 2000)

Increasing Medical Students' Pediatric Clinical Skills in a simulated Environment

Keywords: *Undergraduate, Pediatrics, Parent-child Simulations, Clinical skills*

Authors: *Skelley, R.*

Institution: *Dalhousie University*

Summary: Increasing Medical Students' Pediatric Clinical Skills in a Simulated Environment Medical students are expected to demonstrate a basic understanding of pediatric clinical skills. Learning these skills with young children on the inpatient population is difficult due to the severity of illness. In 1999, a pilot project was developed using a parent with their child (SP pair) as simulated patients. A pediatric preceptor and 4 pre-clerkship students met as a group with one of several SP pairs. These patients were trained by an SP Educator to portray a specific presenting problem. All 86 students received this exposure twice. Since its inception, the program has evolved in size and scope. Today pre-clerkship students have two sessions each. In the first session, groups of four students, under the guidance of a preceptor, assess one SP pair presenting with a simulated growth and development concern. In the second, a group of two students assess an

SP Pair with a simulated history of diarrhea and vomiting. Both sessions incorporate actual parent-child history. This program complements hospital inpatient teaching and provides an increased opportunity for students to practise their clinical skills, be observed and receive feedback from parents and preceptors. We will describe the challenges of using a unique approach where parent-child simulated patients complement the acquisition of clinical skills in pediatrics. The challenges are recruiting, training and scheduling of parents and preschoolers. Benefits for students, teachers, parents and their children will be discussed. In addition, qualitative and quantitative data will be presented to show the differences between the ward experience and the SP Pair experience.

Enhancers and barriers to interprofessional learning and collaboration: reflections of some facilitators

Keywords: *education, health, interprofessional, social care*

Authors: *Elzubeir M, Feather A, Mitchell J, Forte A, Azeem S, Tatum S, Farrell M.*

Institution: *City University*

Summary: The Centre for the Advancement of Interprofessional Education¹ describes interprofessional education as taking place "Where two or more professions learn with, from and about each other to promote collaboration and quality of care". Since September 2003, The North East London Workforce Confederation in collaboration with Havering College, City University, London South Bank University, University of East London and Queen Mary College, London University have been implementing IPE programmes aimed at bringing students together to develop an understanding of other professionals; roles and responsibilities and their contribution to the care and rehabilitation processes, in a variety of placement contexts. The programme to date has included students from between two and seven health and social care professions, with over a hundred and fifty students participating in three locations. Facilitators involved in the delivery of the program reflect on its interprofessional nature, and have been utilizing an action research process to develop facilitation skills and determine what strategies and approaches in the different contexts enhance and impede interprofessional learning. The aim of this presentation is to describe enhancers and barriers to interprofessional learning from the perspectives of six facilitators. The paper describes the reflective process, some preliminary findings and future directions.

Reference: [1]CAIPE (1996) Principles of interprofessional education. London: Centre for the advancement of Interprofessional Education.

Multi-professional education: the case of the Clinical Pharmacy and Pharmacotherapy Unit of the Faculty of Pharmacy at the University of Barcelona

Keywords: *Clinical Pharmacy, Pharmaceutical Technology, Pharmaceutical Care, Education*

Authors: *Modamio, P.; Braza, A.J.; Oliva, M.;*

Sebarroja, J.; Tobaruela, G.; Lastra, C.F.; Mariño, E.L.

Institution: *Faculty of Pharmacy. University of Barcelona*

Summary: In 1995, after initiatives started in 1988, the Clinical Pharmacy and Pharmacotherapy Unit was officially created as an academic-scientific-professional project. From the beginnings, the establishment of close and fluid relations to pharmaceutical professionals has been a challenge to achieve considering the new needs of education. Another important objective was the creation of a web site to support teaching and learning according to the communication and information technologies. In this sense,

full-time and part-time (associate professors) university places were provided for new profiles related to clinical pharmacy and pharmacotherapy. The latter were pharmacists working at hospital pharmacy services, community pharmacies, primary health care centres and pharmaceutical laboratories. At the same time, new compulsory and optional subjects were introduced in the pharmacy syllabus and also in postgraduate (lifelong learning). Thus, the staff joined were given tasks according to their speciality. On the other hand, the web site of the Unit was fully operative in February 1996. As a result of different national and international teaching and learning actions, in 2000 the Clinical Pharmacy and Pharmacotherapy Unit was nominated Group of Teaching Innovation by the University of Barcelona. In October 2001, the Official Medical College of Barcelona accredited the Unit web site as Medical Web. This group has been recently accredited (December 2003) as a Consolidated Group of Teaching Innovation.

Learning from reflection: 'Significant Incidents' during the Pre-registration House Officer (PRHO) Year

Keywords: *Reflective learning, junior doctors, significant incidents*

Authors: *Cavendish, S.*

Institution: *LNR Postgraduate Deanery*

Summary: Reduced working hours and changes in the UK training structure present major challenges to medical educators. A shortened working day and inevitable move towards shift working means less experience with patients, less time to practice procedures, less opportunity for senior and junior staff to work within an apprentice model, and less opportunity for formal teaching of a peer group. If 'less time' is not to mean 'less education', we must ensure high quality, 'on-the-job' learning which fully exploits all education and training opportunities. Doctors need to become independent learners. According to Gibbs (1981) 'Learning from experience must involve links between the doing and the thinking'. In the Leicestershire, Northamptonshire and Rutland Postgraduate Deanery, newly qualified doctors (PRHOs) are encouraged to identify, record and reflect on 'significant incidents' as a way of promoting such links. We report on a study to investigate the effectiveness of the significant incident method as a way of enhancing on-the-job learning. Analysis of documented incidents and a questionnaire survey of PRHOs and their educational supervisors have revealed a range of strategies used for reflection. There is evidence that while some PRHOs seem to maximise opportunities for learning from clinical experiences, others assume that learning will happen through 'permeation' and engage in little reflection to consider alternative interpretations or action. We discuss the value of the significant incident method as one approach for promoting reflective practice and enhancing the quality of work-based education and training. Gibbs, G. (1981) *Teaching Students to Learn*. Milton Keynes: Open University Press

Education for Culturally Appropriate Care

Keywords: *Cultural competence, Curriculum evaluation*

Authors: *Danoff, D., Cleveland, E., and South-Paul, J*

Institution: *Association of American Medical Colleges*

Summary: A critical component of quality care is that it is culturally appropriate. Cultural competence in health care combines the tenets of family and patient-centered care with an understanding of the social and cultural influences that affect the quality of medical services and treatment. In the United States, the accrediting bodies for both undergraduate (medical student) and graduate (resident) medical education mandate education to prepare physicians to provide culturally appropriate care. Effective educational experiences on this complex topic must be integrated

throughout the curriculum. To assist educators to develop optimal programs, the Association of American Medical Colleges (AAMC) supported by a grant from the Commonwealth Fund, convened an expert panel to identify the domains of cultural competence and then created a curriculum evaluation instrument (TACCT) to monitor curriculum content, teaching and evaluation methods. This presentation will describe the domains of cultural competence and the TACCT as well as current applications at a number of medical schools in the United States. While the focus of this presentation is on educational programs in the United States, the theory and methodology are applicable internationally.

Effectiveness of a continuing education project for primary health care. Health related quality of life in chronic musculoskeletal diseases

Keywords: *Health Related Quality, Chronic musculoskeletal diseases*

Authors: *Núñez E, Núñez M, Muñoz MD. Gil MC, Muñoz J*

Institution: *Institut d'Estudis de la Salut*

Summary: Objective: To evaluate the impact of an educational project for Primary health care (PHC) professionals aimed at designing and introducing Health related quality of life (HRQL) programs for patients with chronic musculoskeletal diseases (CMD).

Methods: Three-year project integrated into continuing education courses for PHC. Active learning based on case studies and problem solving. Course of 40 hours. Six sessions of follow up, reinforcement and methodological and program design assessment Evaluation of project. Interdisciplinary, multilevel technical and pedagogic coordination.

Results: 28 participants. Six sessions of follow up and support for the drawing-up of programs and feasibility analysis.

Submission of 8 projects. Four HRQL programs put into practise for: 1) osteoarthritis of hands; 3) osteoporosis; 4) chronic back pain (CBP) and osteoarthritis.

Conclusions: continuing education based and active learning is effective in the implementation of health programs. Technical follow-up and methodological support added to interdisciplinary, multi-level cooperation allowed practical development and application of programs for theoretical context.

Preparing fit for purpose medical consultants - Professional and management development programmes for SpR's

Keywords: *Revalidation, Life Long Learning*

Authors: *Gupta, R. Campbell, R Brigden, D Memon, I*

Institution: *Lancashire Teaching Hospitals NHS Trust, Bolton Institute, Mersey Deanery*

Summary: Traditionally, training for aspirant consultants consisted of more and more specialist medical training. Implementation of the European Specialist Medical Qualifications Order (1995) made the higher specialist training shorter but more focused and structured. Introduction of this order requires that anybody who appointed as a consultant in the UK should have achieved a Certification of Completion of Specialist Training. Increasingly it is being recognised that, important as clinical and scientific skills are, they are not the only skills a consultant needs to operate within a modern health service. In addition to being a competent clinician, consultant should be an effective communicator, teacher, team player, leader and a manager. Bolton Institute and Mersey Deanery who are responsible for postgraduate medical and dental education, have developed a training programme which seeks to develop these skills which will equip future consultants to embrace the ongoing change within the NHS including increasing patient expectations and requirement for regular

revalidation. The introduction of a management culture as part of the modernisation agenda of NHS requires them to:

- contribute to the whole service;
- negotiate and present effectively;
- adapt to principles of life-long learning;
- learn from mistakes hence developing an open culture;
- understand the needs of a multicultural society;
- mentor, support and assess juniors;
- seek help from colleagues when needed.

The question we will address is how to construct a training programme which will deliver these core competencies.

Understanding of risk and improvement of diagnostic inferences by students and physicians is possible – how to raise the haze of Bayes?

Keywords: *Bayes-theorem, risk, probability*

Authors: *Tautenhahn, U., Kube, P., Pelz, J.*

Institution: *Reformstudiengang, Charité Universitaetsmedizin Berlin*

Summary: Genetic tests become increasingly accessible. Possible benefits of testing for susceptibility to chronic disease may be substantially outweighed by confusion raised by test results. The concept of sensitivity, specificity and positive predictive value of a test are all complex and therefore not necessarily understandable to an uninitiated patient. On the other Hand in order to make informed decisions on participation in genetic screening programs and in prenatal diagnosis patients should be told about these concepts. Moreover several studies have shown that even physicians have a poor understanding of probabilities and the predictive value of test results. Gigerenzer and coworkers hypothesised that due to human evolutionary development mental algorithms were not designed for probabilities and a Bayesian reasoning but for the understanding of natural frequencies. In order to test their hypothesis for genetic counselling four problems were presented to more than 200 of our fellow students (representatives of an upper-middle class lay population) either as probabilities or as natural frequencies: (1) positive triple test and the risk of trisomy 21, (2) insulin dependent diabetes mellitus and DR3/DR4, (3) breast cancer and BRCA1/BRCA2, (4) inheritance of familial polyposis and symptom free ageing. Participants received in a randomised order all four problems, two presented as probabilities and two as natural frequencies. They generally ranked the natural frequency questions as less difficult and yielded a significant better understanding of the risk. The representation of complex concepts in natural frequencies rather than in probabilities can improve the understanding of patients, of students and of physicians.

The creation of video materials in education for health. A series titled “A healthy ageing”

Keywords: *video, education,*

Authors: *Torres Sancho A*, Casas Baroy JC*, Vidal M*, Roma JM**, Castro R*, Bonafont A*, Rusiñol J*, Parra R***

Institution: *Universitat de Vic*

Summary: Introduction. One of the activities of the health professionals is the educative task. One of the activities is the elaboration of educational materials. The production of audiovisual materials is one of the strategies that can target a wider population, especially when the elder are the target population. Goal. To explain the creation of audiovisual materials for sanitary divulgation developed for the elderly.

Methods and materials. A work group composed by: lecturers in Health Sciences, assessors in audiovisual production, and assistance professionals

Results. The next methodology is the resultant process form the experience:

1. To select the themes based on the needs detected through several studies.
2. To determine and to agree the style and the features that the materials should follow.
3. To develop the history by an expert. The author.
4. To do the revision and the correction of the history by a philologist. To adapt the language to the target population.
5. To plan the images for the revised history. Author and direction.
6. The production: materials, spaces, actors and the filming. Audiovisual Service.
7. Edition: to choose the scenes and to coordinate them with the history. Audiovisuals Service, director and author.
8. Postproduction. Music, voice, subtitles. The Audiovisual Service.
9. To design the graphic materials: logo, covers and etiquettes (video, DVD). Graphic designer.
10. The promotion and the diffusion.
11. To look for funding to achieve the continuity.

Conclusions. Three videos of the series « A healthy ageing » have been edited. It is intended to spread them via the local network of TV. These materials also have confirmed their utility as support for the assistance professionals. We encourage the collaboration between lecturers and assistance professionals.

Needs assessment of physicians' communication skills about medications: nature of the discussions during clinical encounters and implications for CME

Keywords: *Doctor-patient communication, communication skills learning, treatment discussions, medications*

Authors: *Richard, C., Lussier, M.T., Monette, C., Laprise R.*

Institution: *Université de Montréal*

Summary: PURPOSE. The relationship between physicians and their patients is one of the determinants of the outcomes of the clinical encounter. Ineffective communication often results in misuse of prescribed medications, a major public health issue in Canada. However, few data are available to help educators assess specific practitioners' deficiencies in this area. In this poster, we report on a recent study of the nature and intensity of the discussion about medications during primary care medical encounters.

METHODS. 1646 discussions about specific drugs were identified during audiotaped encounters between 462 patients and 40 general practitioners in 15 clinics located in the Montreal area. In each case, the nature and intensity of the discussion was assessed using MEDICODE, a new coding instrument to describe talk about medications during medical encounters, which was developed and validated in this project.

RESULTS. The average number of medications discussed during one consultation was 3.9, accounting for 14% of utterances and 2.5 minutes of the encounter. CVD, female hormones, anti-infectious, NSAID, COPD and asthma medications accounted for over 50% of all medications discussed. The mean number of themes discussed was 3.9 per medication over a possibility of 40. Compliance check (1,5%), drug interactions (1,4%) and requesting patient's opinion and readiness to follow instructions (1.4% and 1.3%, respectively) were among the least frequently discussed themes.

CONCLUSIONS. This study suggests specific areas for improvement in physicians' communication. These results can be used to design effective CME programs that may have a positive impact on medication use by patients.

Enhancing adult learning, critical appraisal skills and decision making in trainees

Keywords: *Problem based learning; Evidence Based Medicine; Critical appraisal skills; adult learning*

Authors: *Prados, D. Leiva, F. Carrion, MT.*

Institution: *Servicio Andaluz de Salud*

Summary: We developed a teaching strategy shared between trainers and trainees in a General Practitioner Training Unit. This teaching strategy consisted on clinical sessions in which a family medicine resident presented a clinical scenario and discussed it with other colleagues and an expert monitor: 1. Clinical question and searching path to get answers. 2. Results of the literature searching. 3. Selection and critical appraisal of the main articles found. 4. Answer the clinical question and conclusions for the clinical decision making process. This strategy is based on the Journal Clubs proposed by Sackett et al and is also related to the Problem Based Learning. We also took into account the principles proposed by Carl Rogers about Significant Adult Learning. We conducted a cuasiexperimental study with control group and we made a postintervention comparison in 71 family medicine residents in their first and second year of training (12 residents intervention group; 59 control group). Variables: previous training on Evidence Based Medicine, usual bibliographic sources, number of original papers read per month self assessment in critical appraisal skills and an Epidemiology and Statistics test, including knowledge about the Cochrane collaboration and the meaning of NNT. Finally they had to answer a satisfaction test about the teaching strategy as a whole. Despite the limited sample size we found statistical differences on behalf of the teaching strategy in the following variables: knowledge about study designs, biases, Cochrane collaboration, NNT, number of papers read per month and a greater satisfaction with the training.

The integration of basic sciences in the competence-based curriculum of the Faculty of Health Sciences

Keywords: *integrated learning, small groups, self-learning*

Authors: *Neto, I., Feroso Garcia, J.*

Institution: *Medical Education Unit, Faculty of Health Sciences, University of Beira Interior, Covilhã, Portugal*

Summary: The Faculty of Health Sciences of the University of Beira Interior delivers an innovative medical degree which is student-centred and based on self-learning. The curriculum is organized as a spiral curriculum and there is integration between basic and clinical sciences in the study of organs and systems. Based on a functional approach, the basic science topics of anatomy, physiology, biochemistry and histology are integrated by organs and systems in modules such as "The Human Body: from systems to molecules". For each module, learning outcomes are defined and discussed in small groups under a tutor's guidance. There is also time for self-learning and complementary activities to assist students in further learning. The assessment is also integrated according to learning outcomes. To prepare the objectives and contents related to a system or organ there is a group of teachers whose backgrounds may differ but there is always a physician who links the basic sciences with the clinics to contextualize the topics students have to learn. The Medical Education Unit supervises the entire process from goal setting to the development of the pedagogical activities.

Conclusions integrated learning in basic sciences and introduction of clinical examples facilitate learning and the subsequent recall of knowledge in the clinical sciences working in small groups facilitates students' integration in work teams throughout their professional lives a self-learning based methodology enables students to gain competencies for lifelong learning

Bridging the gap between basic and clinical sciences: the strategy of the "Organic and Functional Systems" in the Medical Course of the University of Minho

Keywords: *curriculum, learning objectives*

Authors: *Pinto-Machado, J., Tavares, M.A.F.*

Institution: *University of Minho*

Summary: This work aims to report the curricular development of the area "Organic and Functional Systems" that constitutes an educational unit in Phase I, in the 2nd semester of the 1st year (13 weeks) and 2nd year (30 weeks) in the plan of studies of the new Medical Course of the Minho University. This is characterized by a coordinated and integrated sequence of morphology, biochemistry and physiology with the close involvement of clinical specialties. The teaching/learning program is based in learning objectives with a system-approach. Teaching/learning methodologies are supported by interactive pedagogical approaches. An action-research approach is applied throughout the whole program. Evaluation of the program and of the teachers' performance constitutes the background to promote academic success. This pedagogical-scientific approach aims to provide students, at the end of Phase I, the basis for understanding the scientific principles of clinical situations; for study preclinical and/or clinical subjects correlating structural and functional data. This strategy will prepare a continuum between basic and clinical disciplines bridging, from the early beginning of the Medical Course, the gap between these tracks of Medical Education. The results obtained with this model show that this program is providing medical students a solid education in basic sciences, founded in a core of clinical background, that will be able to provide a skilled clinical performance in the clinical years of the medical course.

Physician Assistant and Medical Student Attitudes Toward the Patient-Provider Relationship

Keywords: *Communication Skills, Patient-Centered Care*

Authors: *Marion GS, Rigsby W, Crandall, SJ*

Institution: *Wake Forest University School of Medicine*

Summary: This project's purpose is to describe and quantify attitudes of Physician Assistants (PA) and Medical Students towards patient-centered care pre- and post-curricular intervention, and to examine: a) differences in attitudes between students in early and later years of training; and b) factors associated with patient-centered attitudes. This study's research questions are: 1) At baseline are attitudes of PA and Medical Students different; and 2) do attitudes change after the 1st year of training? This longitudinal, prospective study will use the Patient-Practitioner Orientation Scale, an 18-item, validated, self-report instrument designed to measure individual preferences towards various aspects of the practitioner-patient relationship. Total PPOS scores range from patient-centered (egalitarian, whole-person oriented) to disease or practitioner-centered (paternalistic, less attuned to psychosocial issues). For medical students, this instrument is part of the Doctor-Patient Relationship course evaluation to help assess curriculum revisions that were implemented with the Class of 2007. These revisions have been made to incorporate the 7 core communication skills outlined by the Kalamazoo Consensus Conference. For PA students, the PPOS will become part of an evaluation of new curriculum to be developed in 2004. Responses from PA and Medical students will be compared longitudinally for several years. Data analyses will include paired comparisons within student groups, and comparisons across student groups using repeated measures procedures. Linear regression will be used to examine associations between mean PPOS scores and demographic variables. Internal consistency estimates (Cronbach's alpha) of the scale will also be calculated.

Mentoring and Role Modelling; why not teach about both?

Keywords: mentor, mentee, role model, multidisciplinary workshop

Authors: MacLellan, A., Perrault Jean

Institution: McGill University, Montreal, Canada

Summary: A 90 minute workshop on mentoring and role modelling, emphasizing the academic, professional and personal issues of career development was organized for the members of a Department of Pediatrics specialty division at McGill University, Montreal, Canada. All members of the multidisciplinary division attended the workshop (nurses, doctors, fellows, secretary, and psychologist). This poster will discuss the content of this workshop which was organized with a multidisciplinary audience in mind, what worked to make the topics relevant for the varied participants, the features of the workshop that would be helpful for future workshops on the same topics, the conclusions at the end of the workshop (was it helpful for the multidisciplinary team (members?) and the outcome analysis resulting from a 4 month post workshop survey (did it really help?). It did help! The poster will also highlight the importance of discussing the roles of the mentor and of the mentee and the need to situate the discussion in the context of academic, professional and personal career issues in order to help health care professionals achieve a successful balance between career and personal life.

References will be cited.

Work hour reforms: Who is doing what and where

Keywords: work hours, post-graduate education, patient safety, lifestyle

Authors: Woodrow, S.; Armbruster, J.; Segouin, C.

Institution: University of Toronto; Accreditation Council of Graduate Medical Education; University of Paris

Summary: Background: Medical education is facing an abundance of new challenges this century. Amongst them is the issue of restricted resident physician work hours. Controversial in nature, it has caused many to question the ultimate outcome of an abbreviated clinical exposure in a training process largely reliant on "hands-on" experience.

Methodology: A comparison of different work hour policies in the United States (US), Canada and France was undertaken.

Results: Due largely to inciting events in each of these three countries, their respective approaches in dealing with resident-work hours has differed immensely. While limits in the US have been driven out of concern for patient safety, those in Canada and France have resulted more from an emphasis on physician well-being. As a result, the strategies employed in these countries to develop and comply with work hour reforms are equally as diverse.

Conclusions: A comparison of the influences behind resident work hour restrictions and their results provides an interesting and informative background for a discussion of different models of training. Furthermore, this analysis highlights the need to maintain focus on the goals of our postgraduate education programs and ensure that, irrespective of the current pressures in medical education, the requirements of our residents are being met.

Attitudes that favour the self-learning and autonomy in the Problem based learning

Keywords: Problem; based; learning Attitudes; Autonomy

Authors: Etchevoyen, F.; Barrios, M.; Troyano, L.; Roman, N.

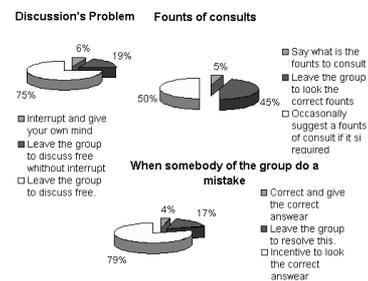
Institution: Maimónides University - Faculty of Health Sciences

Summary: Fundament: The learned is based in the Problem Based Learning (PBL) obligate the students to an arrange whit the rest of the companions and a responsibility based in the autonomy and the self-learning. These attitudes must be propiciated for the teacher in the tutory ambient.

Object: Know the students opinion involucrated in the PBL system of the Medicine Faculty Maimonides about the tutor attitudes.

Method: Were given enquires with closed asks to 120 student to the first from fourth year involucrated in the PBL system.

Conclusions: For the students the tutors let the free discussion, and estimate to find correct answers, leave the group look consultant founts having smaller interventions like to return the discussion if the group miss the principal point or suggesting some fount of consult. These interventions do not bother with the objects of PBL. These attitudes get better the self-learning and the autonomy of the group.



"Post-residency program of training in ambulatory care: an educational option"

Keywords: Ambulatory care training

Authors: Cragno, A.; Arribas, A.; Boero, S.; García Dieguez, M.

Institution: Hospital de la Asociación Médica de Bahía Blanca

Summary: Introduction: most of the residences of Internal Medicine prepare the doctors in the hospital atmosphere, with a teaching based on patients' boarding schools situations, bigger emphasis in the critical cares, the pathologies less prevalentes, and with scarce training in the ambulatory practice that is where more frequently they are developed professionally. It is presented this Program like a proposal for the learning in scenarios of the ambulatory practice directed to former -residents of Medical Clinic. General objectives: when concluding the program, professionals would be capable to: manage the prevalent problems of health efficiently and with human sense demonstrate ability in the doctor-patient relationship improving the efficiency of the interview Organization of the Program. They were defined five axes with defined objectives and activities: Doctor-patient Relationship, Geriatrics Medicine, Behavioural Sciences, Epidemiology and Evidence Based Medicine and Economy and Administration of Health. Activities: Two types: "longitudinal" (along the whole program): ambulatory Attendance in clinic, problem based learning, reflection on the practice and "modules" (for defined periods of time): home visits, administration in systems of health, and optionals according to personal learning plans.

Evaluation: different instruments are used: direct observation of videos, Mini-Cex, portfolio, final report after each "module" activity, investigation project, cases revision. Comments: The Program offers an innovative option in our place for the post-residence training in ambulatory clinical medicine. It is at the same time a good opportunity to reflect on the programs of residence of medical clinic and their deficit in ambulatory formation.

Lessons Learned in Cross-cultural Medical Skills Training

Keywords: *cross-cultural, medical education*

Authors: *Hollaar, G., Hurley, J., Harasym, P., Crutcher, R.*

Institution: *University of Calgary*

Summary: "Globalization and the increasing awareness of health outcome inequalities between ethnic groups have prompted medical educators to raise their voices to promote cross-cultural medical education. Although the purpose of addressing health outcome inequality may be the impetus behind this education, there is little consensus from the literature concerning specific educational strategies, objectives or elements to any cross-cultural curriculum. While cross cultural awareness / sensitivity, cultural competency, and cross cultural humility have all been promoted as important curricular goals, there is no agreement as to our ability, as educators, to determine the degree to which medical students upon graduation possess 'satisfactory' cross-cultural knowledge, skills or attitudes. The University of Calgary Faculty of Medicine has a 'Culture, Health, and Wellness' (CHW) unit that has been a core part of the undergraduate medical skills curriculum for the past seven years. In this presentation, we outline CHW program goals, and outline our successes and failures in achieving these goals. We will summarize the last 3 years of qualitative and quantitative unit- specific outcome and feedback data. We will discuss "lessons learned" in the areas of establishing course objectives, creating a meaningful curriculum, faculty development, assessing medical student cross-cultural skills, and evaluating our CHW cross-cultural course. While this cross-cultural educational initiative has occurred in a Canadian context, the strategies tried and the lessons learned point the way to curricular innovation in diverse settings."

Appraisal as a life long learning tool for healthcare professionals

Keywords: *Appraisal, Revalidation, Clinical Governance, NHS*

Authors: *Prof M Memon*, Mr B Gormley, Prof R Gupta, Mr M A Memon*

Institution: **Preston PCT-NHS, Bolton Institute, University of Central Lancashire - England*

Summary: Introduction: Appraisal is being used as a building block for revalidation for medical professionals. All doctors in the United Kingdom will be required to be appraised annually. This will be required as evidence by the General Medical Council for revalidation to practice every 5 years. Need & Process Development of clinical governance in the NHS and the General Medical & Dental Council's plan for revalidation has identified the need for annual appraisal for medical and dental staff in the United Kingdom. Clinical Governance is about providing high quality of care & service to the patients using the NHS. This involves high quality of care, team working to deliver quality service and demonstrating effective communication & leadership. Appraisal should be supportive and based on Continuous Professional Development (CPD) principles. Clear objectives should be established. Appraisal will include, clinical workload, outcomes and training needs. The non-clinical aspects will include management aspects of the job. Appraisal is based on collating documentary evidence of both clinical and non-clinical roles in a folder to be presented to the appraiser prior to an interview.

Outcomes. Both individuals and organisations can benefit by appraisal process to improve patient care and meet the requirements of clinical governance. Appraisal becomes part of the learning cycle. This will lead to continuous improvement of patient services, leads to openness, probity and will encourage team working and will be a rewarding experience for individuals as well as continue to practice through the process of revalidation by the General Medical & Dental Council.

Impact Of A Multi Faceted Teaching Strategy To Introduce Evidence Based Medicine In A Chilean Medical School

Keywords: *evidence based medicine, developing countries*

Authors: *Moore, P. Letelier, L*

Institution: *P. Universidad Catolica de Chile*

Summary: In 2000, on return from training in Evidence Based Medicine (EBM) in Canada and Britain, a group of faculty, with the support of the Centre For Training Clinical Teachers, began a multi-faceted strategy to introduce EBM into clinical teaching and clinical practice, at different levels in our medical school: Undergraduate – sixth and final year medical students Post-graduate – Family and Internal Medicine Faculty Librarians Multidisciplinary health teams from centres that receive students. This strategy included courses introducing EBM and searching strategies, projects encouraging students and faculty to write critical appraised topics (CAT), the creation of an EBM web-site. We present the impact of this EBM strategy, including pre-and post-evaluation of the participants on our courses, the results of an email questionnaire to participants and a description of the changes related to EBM within the medical school and in the clinical practice of the faculty and students since 2000. It is difficult to conclude that all these changes are related directly to our strategy interventions and a challenge for the future will be to measure if there are any changes in the long-term learning of our students, in the long-term use of EBM by Faculty, and in patient outcomes

Student Reactions to Peer Physical Examination in an Early Clinical Skills Program

Keywords: *physical examination, peer learning, clinical skills*

Authors: *Pierce, D., Conn, J., McNair, R. and Dodds, A.*

Institution: *University of Melbourne*

Summary: Peer Physical Examination (PPE) is frequently used as a teaching tool in early clinical skills programs. Encouraging students to examine each other both within and outside class gives students the opportunity to become familiar with normal physical characteristics, as well as providing practice in examination techniques. However, in multicultural societies religious and ethnic sensitivities may cause difficulties. This paper reports a questionnaire study of student reactions to peer physical examination of the chest. 190 second year medical students at the University of Melbourne gave anonymous responses to an 18 item questionnaire, after providing information on gender, ethnicity and religious orientation. Data were analysed using hierarchical cluster analysis to identify sub-groups with similar attitudes to PPE. Three clusters were identified, with a single Discriminant Function, $X^2(12, N=190) = 300.44, p = .001$, accounting for 99.6% of the between cluster variability. Cluster 1 (n=88) had a large proportion of male students born in Australia or the United Kingdom. These students were very comfortable with PPE regardless of whether it was performed in class, with friends or with students of the opposite gender. Cluster 2 (n= 70) students were more likely to report holding religious beliefs than

students in other clusters, and were neutral in their opinion of PPE regardless of location. Cluster 3 (n=32) students were more likely to be overseas students born in Asia, and to report feelings of discomfort and embarrassment about PPE in all situations. These results will be discussed in terms of both the practical and ethical issues raised by the disparity of opinions expressed by students.

Faculty development program on assessment. Experience at The Catholic University of Chile

Keywords: *faculty development*

Authors: *Wright, A.; Trivino MD, X; Valdivieso MD, V; Sirhan MD, M*

Institution: *Pontificia Universidad Católica de Chile Escuela de Medicina*

Summary: Since 2002, the Clinical Faculty Development Center of the school of medicine has implemented a clinical training program for preceptors, focusing on improving clinical teaching and student learning. Initially, a faculty needs' assessment survey was conducted revealing that assessment was one of the most desired topics for training (75%). Only 15% of faculty reported prior training in this area. Assessment education includes three subjects: written test construction, clinical performance assessment using objective structured clinical examinations, and observational techniques using checklists and rating scales. During this period, 6, 5 and 1 courses there have been developed on these topics, respectively. All were on campus courses, 36 hours each, with approximately 20 attending faculty. The employed methodologies were readings, lectures, small group activities, discussion sessions, videotape case analysis, demonstrations, simulated experiences, and learning projects. These instructional strategies were learner-centered and based on adult principles of learning, task-based and experiential learning, effective team working, and feedback. At present, the number of faculty members trained is 87, 98, and 20 in each subject, accounting for 22 %, 25%, and 5% from the total number. The end course evaluation showed a high satisfaction rate (90%). The courses were greatly valued, especially the opportunity to practice the new concepts learned. The primary suggestions from the faculty for improving the assessment training were systematic follow-up, support for self-actualization, and promotion of widespread socialization of these matters. These are the first steps for improving faculty development, considering assessment as a fundamental milestone of the teaching and learning processes.

Internal medicine residents' views on increasing residency training to four years

Keywords: *residency training, duration, specialty choice*

Authors: *Thorsteinsdottir, B.; Chenworth, E.C.; Tom, C.W.; Cook, D.A.; Kennedy C.*

Institution: *Mayo Clinic*

Summary: Background: In its report, The Future of General Internal Medicine, the Society of General Internal Medicine raised the concern that current three-year internal medicine (IM) training fails to prepare residents for the role of pluripotent generalist and proposed to extend IM training to four years. We sought to determine the opinions of IM residents regarding four-year IM residency training. Methods: Institutional Review Board approval was obtained. We e-mailed all categorical IM residents at our institution requesting they complete an anonymous Web-based survey. Respondent demographics and career goals were ascertained. Residents were asked whether increasing the duration of IM training to four years would increase the prestige of the specialty, how it would have affected specialty choice and to rate the perceived value of further training in seven

focus areas. Results: Of 140 residents surveyed, 97 (69%) responded. Sixty-eight respondents were male. Seventy-five respondents were United States graduates. Average debt at time of graduation from medical school was \$100-150,000. Eighty-six percent felt that IM training should not be increased to 4 years, and 66% indicated that such an increase would have negatively affected their choice of IM. Conclusion: Increasing the length of residency training has been proposed as a way to address some of the challenges currently facing general IM. Our survey suggests that most IM residents do not approve of such a change and that a longer period of training could negatively affect the choice to pursue a career in IM.

Self-esteem, academic requirements and stress in the faculty of medicine careers

Keywords: *Self-esteem, academic requirements and stress*

Authors: *Loaiza, R.*1, Altamirano, P.2, Huaquin, V.3*

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Summary: One of the main objectives of this work is to examine the levels of academic requirements and the resulting stressful consequences of such conditions. That is why, twenty-four careers in two Chilean universities have been assessed: Universidad Austral de Chile and Universidad de Santiago de Chile using a sample of 1334 students. Special attention was paid to the Faculty of Medicine careers of Universidad Austral de Chile. In a comparative analysis of the twenty-four careers, this Faculty obtained the highest grade (5,2 scale from 1 to 7) in the evaluation carried out by students concerning their corresponding curricular systems, grade that is higher (5,34) in the career of Medicine. The device includes a barrage of tests for cognitive evaluations and curricular stress. The results of the partial sample, in general, match with the global sample; confirming an inverse relation between high levels of requirements and low corresponding levels of stress. The Faculty of Medicine careers show high levels of requirements together with moderately high levels of stress. Evaluations carried out face-to-face show a high self-esteem, together with personal moderately low levels of stress. Concerning the ideal requirements of what a good curricular system should be, the students expect high requirements, showing moderate stressful consequences. These expectations look like the rest of the assessed careers. The following chart shows a résumé of results relevant aspects.

Per test factors comparison: Conditions and university personal stress. Universidad de Santiago de Chile
Curricular System. Situación Personal
Evaluation(1 a 7) / Stress(0 a 10) / Evaluation(1 a 7) / Stress(0 a 10)
Faculty of Engineering: 4,24/6,07/5,56/4,75
Mines: 3,88/6,27/5,49/4,59
Faculty of Medicine: 4,73/5,89/5,89/4,38
Total: 4,26/6,05/5,59/4,66
UNIVERSIDAD AUSTRAL DE CHILE
Faculty of Engineering: 4,34/6,05/6,40/3,80
Faculty of Medicine: 5,20/5,11/5,93/4,36
Medicine: 5,34/5,11/6,09/4,15
Total: 4,61/5,47/5,75/4,43
General Total: 4,34/5,63/5,90/4,60

Motor Skill Learning and Surgical Skill Education

Keywords: *surgical education*

Authors: *Hauge, Linnea S.*

Institution: *Rush University Medical Center*

Summary: Developing expertise in surgery has much in common with developing expertise in sport. Training in surgery, just as in

sport, requires mental and physical excellence. Similarities between these domains include: decision-making in high stress environments, physical stamina, extensive concentration, team leadership, meeting high demands from leaders, and the continuing development and refinement of fine motor skills. Given these commonalities, there are extensive opportunities for motor learning and sport psychology researchers to contribute to the advancement of the discipline of surgical education. The purpose of this presentation is to describe the needs and opportunities for inter-disciplinary research and applications of motor learning principles to surgery training. Recent regulatory changes in surgical education have been the impetus for changing and improving surgical skill training. Surgical skill labs have become more commonplace. However, skill-training programs that are based on motor learning theories and principles are in their infancy. This presentation will describe how motor learning and performance enhancement theories and practices are applied within surgical residency programs. The culture, in which surgeons perform, relevant to effective program planning and implementation, will be addressed. Current motor learning and performance enhancement research in surgery will be summarized, along with suggestions for future needs in research and faculty development. The application of motor learning and performance enhancement techniques to surgical training greatly benefits the growing discipline of surgical education. Researchers and educators from motor learning and sport psychology are a valuable resource in meeting the training needs in the dynamic performance field of surgery.

The teaching of integrated pharmacology as an essential foundation of medical pharmacotherapeutics

Keywords: *teacher student roles learning*

Authors: *Ramirez-Gonzalez, M.D., Prado-Vega R., Martinez-Viniegra N.*

Institution: *Universidad Nacional Autonoma de Mexico*

Summary: The teaching of integrated pharmacology as an essential foundation of medical pharmacotherapeutics. María Dolores Ramírez-González*, Roberto Prado-Vega and Norma Martínez-Viniegra. Facultad de Medicina, U.N.A.M. (*mdrg@servidor.unam.mx) Quotidian clinical practice implies two essential activities: i) integration of diagnosis; and , ii) designing the plan of therapeutic management. Among the therapeutic measurements there is the use of drugs. Drug prescription is an essential skill that requires in depth knowledge of basic pharmacology and clinical pharmacology as well as attitudes and values related to the drug prescribed and the patient receiving treatment. Aspects that receive little attention in medical curricula. In this work we present data on the prescription habits of practising physicians that support the proposal of a pedagogy model consisting of a set of nine competencies which are based on an early approach of medical students with practising physicians and the multidisciplinary integration with other basic sciences. The main feature and usefulness of the model is to lead the student into significant and long lasting learning of pharmacology. In this model the professor in charge of teaching pharmacology is the promoter and guidance for the student into active learning; contextualized teaching is the key element for significant learning. The main advantage of the design of the integrated course presented is that it can be included for a modular or departmentalised organisation in medical schools.

Analysis of the relation between student learning and student perception of teacher's empowerment and empathy in the classroom

Keywords: *STUDENT TEACHER RELATIONSHIP*

Authors: *Maillard-Ferrer M.E., Ramírez-Arrieta M., Sandoval-Aguilar P. and Ramírez-González M.D.*

Institution: *Universidad Nacional Autonoma de Mexico*

Summary: Analysis of the relation between student learning and student perception of teacher's empowerment and empathy in the classroom. Maria Elena Maillard-Ferrer*, Monica Ramírez-Arrieta, Primo Sandoval-Aguilar and Maria Dolores Ramírez-González**. Departements of *Psychiatry and mental health and **pharmacology; school of medicine, national autonomous university of Mexico. Mexico City, P.O.BOX 70-297 (email:mdrg@servidor.unam.mx)

Introduction. Teacher's attitude in the classroom will significantly contribute to student's learning in as much as student's emotional involvement takes place. A student will find easier, lighter and more enjoyable to deal with heavy academic loads as long as the feelings of likeness, encouragement and attachment are evoked by the teacher. Teacher's empowerment in the classroom refers to the ability for leading students towards specific behaviors specifically related to the expression of the learning achieved. The expression of this empowerment may occur in different ways, but it must be related to the development of empathy with students in order to promote significant long lasting learning; i.e., an empowered teacher should provide effective teaching in an enjoyable environment where students are convinced on the importance of what is taught and should be learnt. In this work we describe the validation of a questionnaire designed to measure the extent of teacher's empowerment and empathy with students in the classroom during lectures of medical psychology and pharmacology and analyzed their relation with the grades attained by students in these courses. We conclude that these measurements are useful to provide information to the professors in order to improve their teaching abilities.

Programme for information management in nursing studies using problem-based. Methodology (PBL) at the Escuela Universitaria de enfermería "Vall d'Hebron" Barcelona

Keywords: *Management Information*

Authors: *Carulla, M.*

Institution: *Escola Universitaria d'Infermeria Vall d'Hebron*

Summary: Programme for information management in nursing studies using problem-based. Methodology (PBL) at the Escuela Universitaria de enfermería "Vall d'Hebron" Barcelona

Authors: *M. Teresa Carrulla Musons, Laura Montenegro Marchante, Maribel Fernández Cano*

INTRODUCTION: During the academic year 2002/2003 we adopted the Problem-Based Learning methodology (PBL). One characteristic in our experience with the implantation of PBL, has been that, from the definition of competencies, objectives of learning were drawn up which integrate material from different subjects together with an evaluation methodology. Programmes of support for the students were also been designed in order that the students meet the objectives related with learning skills. These skills permit the students to develop effective self-learning techniques and motivation to learn. It is in this context that the information management programme and critical reading are involved.

PROGRAMME: Objectives. The student acquires skills in: Search for information. Critical reading and evaluation of found evidence. Storage and handling of information. Methodology. A methodology was followed centred on the student, in groups of 15

with one tutor who assisted the learning process. There were 8 sessions of a 3 hour duration. The process of each session involved: performance, identification, discussion and evaluation of action(s). The differences with respect to PBL were that the starting points of the discussions were original articles which the students had previously selected. Evaluation. Specific objectives were evaluated in the student sessions. This implied training in order to develop skills to carry out relevant information searches and was evaluated continuously in tutorial groups (PBL) by students and tutor.

A national initiative to improve the quality of the learning and teaching process in undergraduate medical education in the UK

Keywords: *knowledge exchange, multiprofessional, networking*

Authors: Purcell, N.

Institution: Newcastle University

Summary: The Learning and Teaching Support Network for Medicine, Dentistry and Veterinary Medicine (LTSN-01) was set up as one of 24 'Subject Centres' designed to provide support for the providers of undergraduate education. UK Universities were invited to bid to be the host of each of the centres and the medicine centre is now based at Newcastle. The core aims of the subject centres are knowledge exchange, networking, promotion and sharing of good practice and providing advice to practitioners. These aims are achieved through a variety of strategies including:

- Collating information on all aspects of teaching, learning and assessment
- Providing training opportunities through workshops, seminars and learning resources
- Funding practitioners to undertake small scale projects investigating aspects of the learning and teaching process
- Dealing with individual enquiries from practitioners and providing general advice through the FAQ section of the website
- Using a variety of networking strategies to help to identify development needs and guide strategies for enhancing collaboration and the sharing of good practice.
- Liaising with relevant professional bodies and subject associations
- Using and advising on C & IT methods in teaching and learning
- Updating practitioners on current and future pedagogic developments through publications, workshops etc
- Working with other subject centres to support interdisciplinary and multidisciplinary activity

The key issue is to find effective ways to reach a large and diverse teaching community which may be wary of an organisation that might be perceived as an agent of government interference.

Shifting faculty from a traditional curriculum to Problem-based Learning, the Maimonides experience: the Program for Continuous Improvement

Keywords: *PBL, learning, tutors, skills, development, quality, problem, based, workshops*

Authors: *Castaño, H.; Roman, N.F.; Barrios, M.; Etchegoyen, F.; Goizueta, M.;*

Institution: *Universidad Maimonides - Faculty of Health Sciences*

Summary: The Maimonides University School of Medicine, has implemented a new curriculum that emphasizes active, self-directed learning in small group tutorials. The aims of the Integrated Faculty Development System is to improve the quality of Tutors and to detect and correct possible flaws in their tutorial skills.

The System is composed of different activities in which the tutors are involved: Tutoring Skills Workshops, Videotaping actual tutorials, medical education journal club, Problem Design Workshops, Problem-based Learning Workshops for other faculty and the Program for Continuous Improvement (PCI)

Method: Tutors detect problems or difficulties regarding the tutorial activities and write them down in a personal folder. One of them is in charge of summarizing and organizing all this information every two weeks. The faculty is split into 2 tutorial groups, 10 members each, that will have the task to find the answers required, guided by a Tutor Coordinator. These solutions are then put into practice and this iterative process continues as required.

Conclusion: The Integrated Faculty Development System provides not only a means of converting faculty from the traditional method to PBL, but also is a valuable tool for detecting and resolving problems in tutor's performance.

Towards excellence in education in the UK – can government funded initiatives make a real difference?

Keywords: *excellence, teaching, change, bids*

Authors: Purcell, N.

Institution: Newcastle University

Summary: The English government is making £315m of recurrent and infrastructure funding through the Centres for Excellence in Teaching and Learning (CETLs) programme. This is a major initiative to reward excellence in teaching and learning in English universities. A number of the bids for this funding will be in the Health and Social Care sector alongside bids from the dentistry and veterinary medicine constituencies. The time when teaching and learning activities were assumed to be the exclusive prerogative of the professionals engaged in them, have long gone. All aspects of the processes relating to the experience of students are the subject of active management and political intervention. For example, recent initiatives in the UK include targeted programmes designed to enhance specific aspects of practice such as 'employability' or 'widening participation' as well as more general programmes addressing the widest perspectives such as the Higher Education Academy. The CETLs illustrate a particular approach to the problem of supporting change in the very diverse university teaching and learning communities. One key characteristic is the selective targeting of the funding. Approximately seventy out of 170 institutions will be funded. The funds will be allocated via a competitive bidding process, with its concomitant resource implications.

'Blended learning' to facilitate a modern National Health Service

Keywords: *blended learning elearning health foundation degree*

Authors: Poulton, T.

Institution: SGHMS

Summary: 'Blended learning' to facilitate a modern National Health Service Terry Poulton, Nameer Abdulahad, Annemarie Cancienne, Ahmed Younis, Kath Start. Department of Medical and Healthcare Education, St George's Hospital Medical School, Cranmer Terrace, London SW17 ORE, UK In 2002, St George's received funding to develop a new degree which will offer an innovative route of accelerated-entry to a range of undergraduate degree programmes in medicine, healthcare and allied professions. The course aims to address issues of lifelong learning and social inclusion; it will provide access to health care professions for groups for whom campus-based or traditional distance learning is not suitable. This degree will be, of necessity, a complex combination of different outcomes and different teaching styles:

1. The course has been constructed with a basic backbone built upon a theoretical 'generic' foundation degree in health. This will then be adapted to specific 'pathways' as diverse as paramedic sciences, physiotherapy, radiology and possibly an entry to the third year of medicine. A development team was assembled in which the 'pathways' were represented by course developers from the relevant health disciplines

2. The 'blended learning' approach of this course will break new ground in integrating e- and work-based learning throughout the NHS. The course will be delivered entirely through the UK e-university platform, as a scenario-based 'learning week', initiated by weekly roll-out of a patient scenario on the web. In sequence, online, the student will progress through a number of distinct stages which include the supporting 'knowledge' materials in the form of professionally constructed Key Topics; online formative assessments; and instructions for the communication and clinical skills and face-to face sessions which will be based in the work place; terminating in a weekly summative online assessment.

Critical Events in Residency Education Programs

Keywords: *residency education, critical events, residency program directors, leadership, reflective practice, professionalism*

Authors: *Russell, R.; Granich, A.*

Institution: *McGill University*

Summary: Two directors of a Psychiatry residency program, spanning 14 years (1988-2002), reflect on their leadership experiences. The number of complex and difficult events that impacted upon multiple aspects of the residency program was noteworthy. These events presented many challenges for the program directors because they were momentous occurrences with consequences. There were few resources available to guide and support the directors in these situations. The goal of the project was to gather data on the nature and number of these "critical events." Critical events were defined as the sudden surfacing of acute events or the sudden uncovering of events that were previously hidden. Seven categories of events were delineated: Patient-related, Resident-related, Faculty-related, System-related, Boundary violations, Tragic, and Confidential forever. The impact of the events upon the program was evaluated for severity (mild, moderate, severe, and catastrophic) and for global assessment of burden (1 to 5max). Strategies and guidelines need to be developed to assist residency program directors with these unexpected events. Current efforts to describe and evaluate professionalism, to offer continuing professional development on leadership, and to develop new skills through reflective practice will be key to future approaches for residency program directors in dealing with critical events.

Building A Continuum-Of-Education Model In General Practice

Keywords: *Vertical Integration General Practice*

Authors: *Raasch, B.Darr J*

Institution: *James Cook University*

Summary: The aim of the project was to engage the key participants in a regional area in Australia in developing and maintaining the vertical integration of education for general practice. The target groups included undergraduate and postgraduate training programs at the University, 2 regional federally funded organizations supporting general practice and primary health care (Divisions), and potential teachers and learners at different levels along the continuum in the university, community and the Divisions.

Methods: A review was undertaken of Division programs and continuing education activities. A needs assessment for educa-

tion was carried out through a focus group with GP registrars and a questionnaire was circulated to health professionals working in the community and supported by the Divisions.

Results: Many integrated learning opportunities have been identified in Division's programs. Registrars had concerns about the time involved in teaching and felt uncertain and lacking in confidence. They needed to understand the curriculum requirements. There were untapped resources of experience and teaching expertise among health professional within the Divisions. Approximately 40% were teachers already at workplace or tertiary level and 48% were keen to teach.

Outcomes to date:

1. The development of Collaborative partnership between the University and the Divisions
2. Collaboration between undergraduate and postgraduate training at the University.
3. Needs for education of the potential teachers in the community have been identified
4. Implementation strategies are being developed.
5. Involvement of rural and regional health professionals with students and registrars will help to promote the concept of integration, interprofessional learning and multidisciplinary team work in GP.

Working with critical incidents: a proposal for a learning diary as a tool for the mentoring of family medicine residents

Keywords: *Critical incidents, learning diary, family medicine residents.*

Authors: *Torán P³, Montero JJ³, Arnau J¹, Forés D², Cots JM², Fornells JM¹, Martínez-Carretero JM¹.*

Institution: *1. Institute of Health Studies 2. Catalan Family and Community Medicine Teaching Units 3. Ronda Prim (Mataró 7) Primary Health Care Team*

Summary: Aim of this pilot experience was to test the usefulness of a regular written register of critical incidents encountered by family medicine residents during their final year as postgraduate trainees. Critical incidents consist on practical situations that rise doubts, generate perplexity or cause the resident' surprise, when carrying out his/her day-to-day health work. Participants were five last year family medicine residents working at primary health care centres accredited as teaching units. Data collection of critical incidents was done by means of paper forms designed to collect evidence of raised problems, learning strategies developed and solutions envisaged to improve the identified weaknesses in clinical competences. Main contents of forms was composed by: Critical incident description, its translation into a learning objective, tools used for learning acquisition, time spent and application to day-to-day practice of new knowledge gained. Residents Reflection was intended to revolve around four questions: What have I learnt ?, How did I learn it ?, What more do I need to learn ? and How will I apply what I've achieved through this reflective learning process ?

Results: From 15 critical incidents analysed, a mean of two learning strategies was used, the most being: consult to protocols and guidelines (5), text books (5), consult to medical specialists (4) and to tutors (3). The mean time invested was only 33 minutes for each incident and in all cases the learning goals were reached.

Conclusion: Learning diaries like are useful formative tools that can easily been used by family medicine residents and tutors. They don't require neither technological devices nor imply a great workload, but to register habitually done activities and reflect on them. We think its implementation could greatly benefit the mentoring process of Family Medicine residents inCatalonia.

Evaluation of tutor competency by second-year students from

the Escuela de Enfermería Vall d'Hebron (EUE)

Keywords: Evaluation, Tutor, PBL., Competency

Authors: Fernández, A, Juanola MD, Guillaumet A, Bernaus E. (Teaching staff of the EUI Vall d'Hebron, Barcelona, Spain)

Institution: EUI Vall d'Hebron

Summary: Objective: To analyse the evaluation by students about tutor competency in the academic year 2003-2004.

PEOPLE AND METHODS: A questionnaire was given to 90, students in the PBL tutorial group, elaborated by Branda and Yin-Wai and adapted for the school. It contained 11 dimensions and 33 items. The Likert Scale from 1 (never) to 5 (always) was used. A 4 was considered acceptable.

Results: 174 questionnaires out of a total of 180 were completed. The highest punctuation were: auto-evaluation and intellectual honesty of the teaching staff, average 4.69 ± 0.57 ; returning written work on time, average 4.58 ± 0.67 ; taking notes on group progress, average 4.57 ± 0.74 . The lowest punctuation were: making non-directed questions, average 3.84 ± 0.97 ; help in development of study plan and formation of questions about the reasons to continue in the specific area, average 3.91 ± 0.82 ; help in understanding the bases of the different methods of evaluation, average 3.92 ± 0.84 .

Discussion: Each tutor received his/her own results plus the global results of each unit. A meeting was programmed for the tutors to share their experiences. Taking into account that the BPL methodology has just been implemented, the results were satisfactory. The tutors have only just lost their traditional classroom role, their questions, therefore, may at times be too concrete due to their need to control the knowledge imparted. As an improvement, a group of general assent with the tutors was suggested in order to find strategies to be less directed.

Teaching explicit clinical reasoning

Keywords: Clinical reasoning, teaching program

Authors: de Vries Robbé, P.; Stuyt, P.

Institution: University Medical Centre Nijmegen

Summary: For 10 years at the University Medical centre Nijmegen a program has been carried out to teach medical students an explicit procedure to solve clinical problems. At first the procedure was developed for medical interns at the department of general internal medicine. When the curriculum was revised it was decided to introduce this Clinical Problem Analysis procedure to start from the first year and to continue this teaching into the internships. The procedure consists of several steps in a cycle that have to be carried out sequentially to solve a specific patient complaint. The procedure can be seen as a disease independent protocol. The first step is to decide if a finding is abnormal: we call this an activating finding. Activating findings are then grouped into problems, that for sure link these findings together into (a part of) a single disease process. For each problem hypotheses are generated and for each hypothesis tests have to be selected. In this way it is possible to ask for arguments for each decision that is suggested by the students. The CPA-procedure is give in figure 1. Examples of the workup will be given. The way of introducing several aspects of the procedure will be described and the experience of 10 years will be given. The development of a computer assisted teaching program will be presented elsewhere in this conference.

Framework of university methodology: Initiative and cooperation. An approach to participative autonomy in learning

Keywords: University. Methodology. Autonomy.

Authors: Cardona, X. Godall M.; Costa L; Garcia L; Boixareu R; Pallarés À; Consola F; Vendrell E; Pérez I; Arias E; Ponsa M; Sebastià M J

Institution: EUIF Blanquerna-URL

Summary: This communication has the aim of presenting, within the university field of Health Sciences professional training, the experience of a methodological change to promote initiative, autonomy, and cooperation among students, paying close attention to their professional competences. Within the syllabus of Physiotherapy, Nursing and Nutrition diploma courses at Blanquerna EUIF, URL, there is a compulsory subject in the first year of the three diploma courses: the Seminar. This subject, due to the university and professionalising nature of the students' training, has had and has the objective of promoting intellectual skills and enhance strategies for their prospective professional activity. The first step was to reformulate the objectives. Thus, they are currently described according to certain professional skills particular to each course: to integrate and develop knowledge, skills and attitudes linked to professional competences of health prevention and promotion, interpersonal communication (patient, user, intraprofessional, interprofessional), team working, professional commitment, values and ethical principles of the profession, or keeping up professional competences. We think that the methodological change proposed for this academic year, particularly based on promoting students' involvement in their own learning process, including the design of working itinerary, shall contribute to improve the achievement of this subject's objectives.

Basis of Radiotherapy and Radiodiagnosis: From Theory to Practice

Keywords: Medical Physics, Radiotherapy and Radiodiagnosis

Authors: Sabés M., Cladera J., Barnadas R.

Institution: Unitat de Biofísica, F. Medicina, Universitat Autònoma Barcelona

Summary: New radiation technologies applied to the diagnosis and therapy are becoming more important in the daily medical practice. In the Spanish university basic formation on its use is given in the first three years of medical studies. The Physical basis of electromagnetic radiation and derived technologies, are taught in first year, and in third year students learn about their application in diagnosis and therapy. Experience shows us, that students do not get particularly excited with the lectures on physics applications. Due to this lack interest and also to the need to improve the teaching of these technologies, a new plan was established in 1998. These improvements have been introduced in the 9 credits of 'Biophysics' and the 4.5 credits of Medical Physics, two common subjects for all first year Medicine students, in the form of short, practical demonstrations in the classroom, as a complement for the lectures. On the other hand, 4.5 optional credits have been implemented for this same first year of the degree, under the title 'Basis and Applications of Radiations on Diagnosis and Therapy'. The goal pursued is to give first year students which already show an interest for the application of radiation in Medicine, the opportunity of acquiring a deeper insight on the subject. Teaching of these optional credits combines lectures with tutorials, projection of films, visits to medical centers and hospitals, seminars given by experts in the state-of-the-art technologies, and encouraging the students to prepare and present seminars on different aspects of the subject. Up to now, the results of the different questionnaires in which the student's opinion has been asked, reveal that such an approach has been well received by them, and we can say, for the staff that has participated in implementing them.

The role of the resident's tutor in the spanish hospitals: current situation and the future

Keywords: *Medical resident's tutors. Needs and requirements.*

Authors: *Moran, J.M.(1); Pijoan, J.I.(1); Martinez, A. (1); Urkaregi, A. (2)*

Institution: *(1) Research and medical education unit hospital de cruces. Baracaldo. Spain (2) Department of applied mathematics, statistics and operational research. Universidad del Pais Vasco. Leioa. Spain*

Summary: Objective: to gain insight into the way Spanish medical resident's tutors accomplish their assigned task as people in charge of postgraduate medical program's supervision. To explore their views in terms of unmet needs and requirements.

Methods: Mail administration of a 41-item questionnaire to tutors of 15 general teaching hospitals belonging to the Spanish National Health Service. Descriptive analysis using classical methods and Multiple Correspondence Analysis.

Results: 135 questionnaires were responded. 1) Tutorship: 80% deem its role as necessary for the system. 70% refer to know well the normative duties but only 50% say they meet them in full. 2) Perceived problems and needs: 70% of respondents feel they cannot organize their work time taking their tutorship responsibilities into account. 60% lack time and 60% have no proper administrative support; 96% demand specific time, 90% ability to better manage their time, 97% more empathy from the rest of staff; 95% demand that their decisions should be respected by the whole organization 3) Incentives: 91% require that tutorship should be considered as a merit for professional development; 93% prompt for continuous education facilities and 72% demand economical incentives 4) Implementation of educational programs: only 36% feel they are able to correctly supervise their implementation. There are different views according to academic and professional characteristic of the respondents.

Conclusions: Tutorship is considered relevant in the education programs' supervision. There are important practical difficulties that impede a full accomplishment of its duties. Professional incentives are preferred over monetary compensations.

PBL vs LBL ;an experience teaching molecular biology to first yaer medical students

Keywords: *Medical education, Problem Based Learning, First year medical student, Lecture based learning*

Authors: *Koleini, N.; Farshidfar, F*

Institution: *Isfahan Universitu of Medical Sciences*

Summary: Introduction: McMaster University was the first university to experience PBL (Problem-Based Learning) method in the university level in 1960. This method was primarily introduced to Isfahan University of Medical Sciences in 1990(1369 A.H.) but could only have its effects on the lessons thought because of the ministerial study policies.

Methods: This case-control quasi-experimental study was applied on the students of medicine of the Isfahan University of Medical Sciences - the Bahman 1381 entrance (64 students). Half of the students started working in PBL groups under supervision of the students of higher levels, after learning skills needed for the PBL course in a 3 day workshop. The subject of group activities was chosen from the lessons of molecular biology by the associated professor and each one was discussed each session. At the end of the course, knowledge (through MSQs and short essay questions) and attitude (Likert) were examined in both groups.

Results: Comparison of the attitude score of participants after the PBL course toward team research activities demonstrated that the attitude score of students in the intervention group was more than that of control group ($p < 0.05$). The mean score of the

knowledge evaluating exam of the intervention group was more than the control group as of 1.5 ($p < 0.027$).

Conclusion: Current study showed success of PBL course in comparison with current learning methods and we replace the current education methods (LBL) with PBL.

Catalan teaching network in postgraduate medical education. main issues 1995-2004

Keywords: *Postgraduate training, Residency Programs*

Authors: *Fornells, J.;Berlanga,E.; and the Permanent Comission of Catalan Teaching Network**

Institution: *Xarxa de Comissions de Docencia i Assesores de Catalunya*

Summary: The Catalan Network was created in 1995 with the objective to coordinate teaching structures along the country and to design strategies in order to improve postgraduate training in our region. The network is a professional body within the framework of the department of Health established by law. In the last 8 years the main activities, among others, have been:

- A training programme intended to tutors. About 90% of tutors in Family Medicine and 60% of tutors for hospital specialties have already receive a specific training in Teaching methodology.

- A programme on generic skills and knowledge specially focused on bioethics, communication skills, research methodology and clinical management.

- A system of tutor's accreditation and his recognition

- Symposiums on key aspects organized periodically

- To stimulate studies and inquiries about postgraduate training in Catalonia *A. Labad; A. Sans; C. Gutierrez; J. Lopez; JM. Cots; L. Franco;JM. Martinez; MJ. Cerqueira; m. Ezquerria; R. Cuadros; S. Hernandez

Preventing clinical errors: a model for medical education

Keywords: *rational-emotive model, clinical mistakes prevention.*

Authors: *Borrell-Carrio, F. (*)Epstein Ronald M(**)*

Institution: *(*)Institut Català Salut (***) University of Rochester*

Summary: A systemic perspective on clinical errors proposes that behind each error there is often a chain of circumstances; nevertheless there are elements of medical errors that can and should be attributed to individual factors. In general, doctors have the sensation of making a mistake not from a lack of knowledge, but the mindless application of unexamined habits and the interference of unexamined emotions. We propose a so called rational-emotive model that emphasizes two factors in error causation: a) difficulty in reframing the first hypothesis that goes to the doctor's mind in an automatic way; and b) premature closure of the clinical act to avoid confronting inconsistencies, low-level decision rules and emotions. We propose a Workshop (1:45 h length) with the following goals: a) developing doctor's insight and self-awareness to detect the inappropriate use of low level decision rules; b)detecting the factors that limit their capacity to tolerate the tension of uncertainty and ambiguity.

Methods.- 45 min. theoretical exposition; 45 min. case discussion and role playing.

Contents.- Clinical errors and clinical security; psychological factors in clinical errors; calibrating the physician; clinical scenario and first hypothesis; reframing; critical tension; knowledge in action; cognitive activation, high-level decision rules, a habit of self-questioning

Developing a Mentoring Partnership

Keywords: *Mentoring, Professional development*

Authors: *Ramanan, R. and Ramanan, S.V.*

Institution: *Harvard Medical School and University of Connecticut School of Medicine*

Summary: Physicians are more likely to achieve their personal and professional goals when guided by a mentor. This workshop is directed toward program directors and faculty who wish to learn about mentoring, or who plan to establish such programs. Mentoring relationships rarely develop spontaneously. A structured system that brings together mentor and mentee, incorporating the expectations (and needs) of both, is essential if the relationship is to be established and maintained. In this workshop, we will review research and identify critical components of mentoring. With interactive discussions among course participants, we will then synthesize the literature with our cumulative experience, and develop strategies to create successful mentoring programs. Two general internists will present this workshop: a clinical investigator whose research has identified qualities of successful mentoring and their impact on resident education, and a senior physician, dedicated to medical education, who will discuss what he has learned over three decades.

Challenges Facing PBL Tutors: 12 Tips for Successful Group Facilitation

Keywords: *Facilitation, PBL, tutor, challenges, training, successful discussion*

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Institution: *Faculty Education Unit, Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne, Parkville 3010, Victoria.*

Summary: Group facilitation is a process by which the tutor helps his/her group to improve their skills in defining problems, discussing mechanisms, making decisions, weighing evidence, making priorities and increasing group effectiveness. Facilitation is about process rather than the content. A good facilitator keeps the group on track and guides them to achieve their goals. A successful group's facilitator may use a number of techniques to help the group progress towards a destination. However, despite training tutors in workshops, data show that a significant number of PBL tutors believe that they are unable to master the process of facilitation, particularly in problems covering issues outside their areas of expertise. From my experience, trained PBL tutors identify successful group facilitation as the area requiring further training and improvement. The aims of this workshop are:

- (i) To discuss why it is important to train PBL tutors to become facilitators
- (ii) To understand the qualities required for successful group facilitation
- (iii) To master the roles of a group facilitator using 12 tips.
- (iv) To practice facilitation in 4 challenging situations using real-life scenarios.

This is an interactive workshop. Participants are expected to work in small groups and reflect on their experience. The presenter will also discuss an innovative strategy he has developed and used in training PBL tutors.

Bringing systems based practice and practice based learning to the bedside

Keywords: *Practice based learning; systems based practice; faculty development*

Authors: *Whelan C, Mohr J, Podrazik P.*

Institution: *University of Chicago. Chicago, Illinois USA*

Summary: Proposal: To engage educators in a highly interactive workshop aimed at improving comfort and skills in teaching and

evaluating systems based practice (SBP) and practice based learning and improvement (PBLI) in traditional clinical settings.

Learning Objectives:

1. Describe the importance of teaching SBP and PBLI
2. Improve comfort and skills in teaching and evaluating SBP and PBLI.
3. Develop strategies for teaching these competencies in clinical settings.

Background: ACGME requires residency programs to teach and evaluate 6 core competencies: patient care, medical knowledge, communication skills, professionalism, PBLI, and SBP. Although most programs provide training in 4 competencies, few expose residents to PBLI and SBP. These competencies challenge residency programs to find innovative ways to integrate improvement and systems thinking and teaching into the traditional clinical environment and to demonstrate that these competencies are core clinical skills. While faculty are asked to evaluate learners on these competencies during clinical rotations, limited resources about how to teach or evaluate these skills exist.

Description: We have implemented a faculty development workshop that provides specific skills to teach and evaluate these competencies during clinical rotations. This highly interactive session will provide attendees with tools to create faculty development courses in their own institutions. After a brief didactic introduction to these competencies, facilitated small group work will be used to discuss comfort level, skills, and barriers to teaching and evaluating these competencies in clinical settings. After a final debriefing, learners will be provided with a toolset and strategies for implementing them in their home institutions.

Can you reduce medical errors in the absence of a learning culture?

Keywords: *learning organization, medical errors, cqi*

Authors: *Pohl, H.*

Institution: *Albany Medical College*

Summary: Goal, purpose: At the conclusion of the workshop, participants will be able to describe the elements of a learning organization and analyze their institutional learning environment to determine the degree to which a learning culture exists. Participants will describe a medical error reduction initiative at their home institution and begin to develop a strategy to insure the characteristics of a learning organization are part of the solution.

Methods: - Presentation of key concepts (20 minutes): We will review the characteristics of a learning organization and discuss the impact on learning. We will present preliminary data collected at our institution during a prospective observational study centered around our learning culture as it relates to errors and near errors amongst residents. Strategies for medical error reduction will be discussed in the context of the learning organization and the macro and micro systems of an institution.

- Group work (30 minutes): Participants will divide into working groups. Each group will determine the state of the learning organization at their institution and develop strategies to improve the institutional culture. They should specifically acknowledge barriers and subsequently solutions. The group should then describe a plan for medical error reduction that includes learning organization elements. The plans should focus on curriculum and competency.

- Report-back (30 minutes): Each group will describe their group results.

- Conclusion (10 minutes): Dr. Pohls, and Hoff will comment on the reports and help the group leave with an action plan.

Peer review from A to Z

Keywords: *peer review*

Authors: *Spencer, J (Deputy Editor); Brice, J (Senior editorial assistant)*

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Summary: Peer review from A to Z Target audience Anyone involved in, or interested in getting involved in refereeing, whatever their level of experience Number of participants 25

Background 'Peer review lies at the core of science and academic life (and) is the main mechanism that research journals use to assess quality.' (1) Yet problems are well documented. These include questions about the quality and reliability of the process, as well as lack of training for the job. A recent survey of the views of Medical Education reviewers showed that, whereas most respondents had not received any formal training in peer review, a majority said they would like to do so (2).

Aims: To provide background information about the reviewing process, describe how manuscripts are managed, and to explain what editors, authors and readers would like from their reviewers. **Intended outcomes** Improve participants' understanding of the review process and what makes a good review **Share experience of reviewing manuscripts, discuss problem areas, and generate ideas for improving the process** **Format** An interactive, hands-on workshop. After a brief introduction to set the scene, including an outline of the review process at Medical Education, participants will use samples of real review material to identify features of a good review and highlight problem areas.

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Education Development Programs for Faculty - How do you measure success?

Keywords: *Instructional development, faculty development, evaluation*

Authors: *Silver, Ivan; Lieff, Susan*

Institution: *Faculty of Medicine, University of Toronto, Canada*

Summary: Many medical schools internationally have initiated longitudinal faculty development programs to enhance the education development skills of their faculty. There is no general agreement on the ideal methods to evaluate the impact of these programs. Evaluation methods that appear in the literature or that have been proposed include satisfaction scales, retrospective pre-post surveys on self-efficacy measures, CV and teaching dossier analysis, quality of networking, qualitative approaches looking at changes in the professional identity of faculty and impact on student learning. Two evaluation models will be presented. The first is based on Dixon's 4-stage typology that has been adapted for outcome measurement in Continuing Medical Education. The second is based on understanding change from a behavioral, cognitive and social point of view. Participants will have an opportunity to discuss the implications of these models for developing a coherent approach to evaluating the impact of education development programs for faculty. Barriers to implementing evaluation strategies will be highlighted and the group will brainstorm methods to overcome these barriers.

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