



Letters to the editor

To cite this article: (2009) Letters to the editor, Medical Teacher, 31:8, 774-779, DOI: [10.1080/01421590903203270](https://doi.org/10.1080/01421590903203270)

To link to this article: <https://doi.org/10.1080/01421590903203270>



Published online: 09 Sep 2009.



Submit your article to this journal [↗](#)



Article views: 514



View related articles [↗](#)

LETTERS TO THE EDITOR

Educational institutions' Information Technology policies have the potential to impede e-learning research

Dear Sir

I read with interest the article by Cook on the need for research comparing different e-learning interventions (Cook 2009). Unlike other recent developments in healthcare, common sense rather than evidence-based medicine has dictated the spread of e-learning through medical education thus far.

One area not discussed by Cook is the wealth of information routinely recorded by each educational institution's own Information Technology (IT) departments. Typically, this will include the records of the types of web resources used by individuals and the pattern in which they are used. One prerequisite of a typical virtual learning environment (VLE) is that each individual student will sign in as a unique traceable user. This specific information can be correlated with a detailed review of examination performance in that institution. Coupled with modern assessment instruments, this will allow the evaluation of different e-learning techniques. The literature contains few examples or research in this area (e.g. the work by McHarg et al. (2006)).

These data could be collected on a large scale and cross-referenced with the information already routinely collected during medical training. This global approach contrasts with more commonly used research studies, which often focus on individual components of a teaching method or clinical skill (Balslev et al. 2007; Xiao et al. 2007). This opportunity to study different e-learning approaches, that have not been specifically designed for clinical trial use, allows 'field testing' (as described by Cook) of 'real life' e-learning material (Cook 2009).

From personal experience, one possibility for the lack of this form of web-based research is local IT user policies, put in place to protect individual student's online privacy. Despite this complicated ethical hurdle, organisations should be encouraged towards the study of online behaviour. Educators should be actively exploring the opportunities that arise from data routinely collected by their own institutions.

Whilst randomised controlled trials will clearly play a critical role in e-learning research, the analysis of large quantities of widely available high-quality data should not be overlooked.

James Bateman
Abigail Millett
University Hospital Coventry and Warwickshire
Clifford Bridge
Coventry CV2 2DX
UK
Email: james.bateman@warwick.ac.uk

References

- Cook DA. 2009. The failure of e-learning research to inform educational practice, and what we can do about it. *Med Teach* 31:158–162.
- Balslev T, de Grave WS, Muijtens AMM, Scherpbier AJJA. 2007. Comparison of text and video cases in a postgraduate problem-based learning format. *Med Educ* 39:1086–1092.
- McHarg J, Goding L, Caldarone E, de Bere SR, McLachlan JC. 2006. Availability of a virtual learning environment does not compensate for the lack of a physical facility. *Med Teach* 28:258–263.
- Xiao Y, Seagull JF, Grant V, Bochicchio GV, Guzzo JL, Dutton RP, Sisley A, Joshi M, Standiford HC, Hebden JN, et al. 2007. Video-based training increases sterile-technique compliance during central venous catheter insertion. *Crit Care Med* 35:1302–1306.

Assessment of medical students' hazardous drinking habits

Dear Sir

In relation to problematic alcohol consumption, doctors traditionally have focused on the alcoholic patient, leaving second place to the hazardous drinker. Paying more attention to the hazardous drinker as a way of detecting the problem in its early stages can be a valuable tool in improving preventive activity in primary care. In fact, one of the priorities of WHO in this field is to shift the medical interest towards the hazardous drinker, although this concept is not yet too widespread in primary care. There are several explanations for this; for example, medical students receive little training in this area. In a study by Stine et al. (2000), 22.8% of newly graduated doctors considered the education they received in prevention and screening to be inadequate, and did not feel well prepared in this area.

We believe that a good strategy, when it comes to the training of medical student in the concept of hazardous drinking, would include educational activities like self-assessment of alcohol consumption. Various studies have brought light to the existence of erroneous beliefs about alcohol and bad habits in medical students, for example, they found that one-third of the medical students overestimated the safe levels of alcohol consumption (Granville-Chapman et al. 2001).

In a study carried out with students from the Faculty of Medicine of the University of Castilla-La Mancha (Spain), we found that 50% of males and 45.5% of females met the criteria for alcohol abuse. Self-evaluation of drinking habits can give the student a more realistic vision of what could be a hazardous drinker, increasing their awareness of whether their own consumption is close, or not, to the risk level, and possibly influencing a more moderate use of alcohol. In our view, the simplicity of the existing screening tools [AUDIT (Alcohol Use Disorders Inventory Test) and SIAC (Systematic Interview of Alcohol Consumption) questionnaires] allows

proper assimilation from the early stages of medical education. This facilitates the student's introduction to prevention tasks, making possible a higher state of awareness to their own or others' hazardous alcohol consumption.

Jesús Lopez-Torres Hidalgo
Beatriz Navarro Bravo
Francisco Escobar Rabadan
Health Care Service of Castilla-La Mancha (SESCAM)
and University of Castilla-La Mancha, Faculty of Medicine

Fernando Andres Pretel
Ignacio Parraga Martínez
Health Care Service of Castilla-La Mancha (SESCAM)

Juan Pedro Serrano Selva
José Miguel Latorre Postigo
University of Castilla-La Mancha, Faculty of Medicine

Correspondence to: Dr. Jesús Lopez-Torres Hidalgo
SESCAM Research
C/Marqués de Villorres
Albacete
Albacete
02001
Spain
Tel.: +34967225742
Fax: +34967226796
Email: jesusl@sescam.org

References

- Granville-Chapman JE, Yu K, White PD. 2001. A follow-up survey of alcohol consumption and knowledge in medical students. *Alcohol* 36:540–543.
- Stine C, Kohrs FP, Little DN, Kaprielian V, Gatipon BB, Haq C. 2000. Integrating prevention education into the medical school curriculum: The role of departments of family medicine. *Acad Med* 75:5–559.

Change in senior medical students' attitudes towards the use of mathematical modelling as a means to improve research skills

Dear Sir

A PUBMED search for 'mathematical models' shows more than 15,000 articles covering almost every field of medicine (Birkhead et al. 1987). It seems logical that some of these articles will discuss the proper way to teach mathematical models, but the truth is far from that. There is a scarcity of

articles in that field, and those who do try to teach and apply mathematical modelling do so mainly in the realm of dosage calculations. So we designed a course with the goal of developing the students' skills in computerized data analysis and mathematical modelling, as well as enhancing their ability to read and interpret mathematical data analysis. In order to achieve these goals we chose to focus on differential equations models (DEM). This selection was done because of the importance and centrality of DEM, and because of the relatively simple logic tools needed to incorporate the basis of this subject. The course was structured as a 1-week workshop for final year medical students. The workshop included frontal lectures; dealing with examples involving files of differential models, coding and variable definitions of such models, simulations, and use of computer modelling. The teaching encompassed clinicians and advanced year medical students, so that students would be exposed to the benefits of multi-disciplinary work. At the end of the course, the students were evaluated through their exposure to an article containing mathematical differential equations. They had to read the article, program a set of equations, run the model and express their critique for the model. We tried to evaluate the acquisition of research skills and the understanding of such data, as well as evaluating the students' feeling of competence. Using these questionnaires we found a significant change in the attitudes of our subjects, comparing their before and after attitudes towards their competence in the use of mathematical models, academically (i.e. their ability to read and understand articles using math models) as well as medically (i.e. their ability to implement theory that arises from math models to medical applications). We believe that the use of math model training in medical education significantly improved our students' confidence in reading and applying math models; and there is a tendency (albeit insignificant) towards superior results in the attitudes of students towards math usage in medicine. We encourage others to develop and evaluate similar programs, and publish their results (Hewett and Porpora 1999), so we all can find the best way to teach this important proficiency.

Zvi H. Perry
The Moshe Prywes Center for Medical Education
Ben-Gurion University of the Negev Beer-sheva
Israel
E-mail: zperry@bgu.ac.il
Doron Todder
Anxiety Clinic, Beer-Sheva Mental Health Center
Ben-Gurion University of the Negev
Beer-sheva
Israel

References

- Birkhead BG, Rankin EM, Gallivan S, Dones L, Rubens RD. 1987. A mathematical model of the development of drug resistance to cancer chemotherapy. *Eur J Cancer Clin Oncol* 23:1421–1427.
- Hewett TT, Porpora DV. 1999. A case study report on integrating statistics, problem-based learning, and computerized data analysis. *Behav Res Meth Instr & Comput* 31:244–251.

Community-Oriented Primary Care: A new approach for teaching health care in Zagazig Faculty of Medicine, Egypt

Dear Sir

All over the world, medical faculties face the problem of the exponential growth of medical information, and mounting pressure on the time available for teaching. Also there is a mismatch between the hospital-based training that graduates are exposed to and the practical training needed for the situation they would work in (Mathers et al. 2004). Community-Oriented Primary Care (COPC) is the process by which a defined population's health problems are systematically identified and addressed. (Boufford & Shonubi 1986). Therefore, it requires knowledge of the community, its demographics, the epidemiology of health problems and sufficient knowledge of the community belief systems and value to guide appropriate interventions.

Most of our graduates (about 80–90%) will work, obligatory for 1 year at least, in the rural primary health care units, where they will be facing health problems that can be prevented and controlled by targeting the factors responsible for its prevalence in the community. Nevertheless, our study in the faculty almost ignores the preventive aspects of medicine and it is also defective on administrative skills that the graduates are very much in need after graduation.

Therefore, including the COPC approach as part of the Public Health training in the faculty will help very much in improving our students' capabilities. It will allow them to perform in real-life situation. Accordingly a curriculum was developed which covered the different aspects of the module. Training of junior staff and the implementation of the COPC module were organized to comprise two types of teaching activities; classroom sessions and field work.

The application of COPC in the training of undergraduate students will have a great impact on their performance later on their life. Its early introduction during students' academic training will promote their ability to deal with their community's health problems. It will improve their understanding of the community needs and make them realize better their community's expectations.

Amal Ahmed El Badawy
Department of Public Health
Faculty of Medicine
Zagazig University
Zagazig
Egypt
Email: amal2411@gmail.com

References

- Boufford JI, Shonubi PA. 1986. Community-Oriented Primary Care: Training for urban practice. New York, NY, Praeger Special Studies.
- Mathers J, Parry J, Lewis S, Greenfield S. 2004. What impact will an increased number of teaching general practice have on patients, doctors and medical students? *Med Educ* 38(12):219–228.

Acceptance of medical students by patients from three outpatient settings in a multi-ethnic Asian population

Dear Sir

There are few studies on receptivity of Asian patients to medical students and between hospital and primary care clinics.

We conducted the anonymous self-administered survey on patients' acceptance of medical student teaching in 73 teaching private family practices, 9 teaching in public family practices and 8 specialty clinics teaching in a public hospital in Singapore, a multi-ethnic Asian population. Parents or guardian was interviewed if subject was below 21 years. We used a six-point Likert scale for each question which was dichotomized into positive and negative responses. Ethics approval was obtained from NUS Institutional Review Board. A total of 1252/1519 family practice patients (82.4%), 1412/1756 public family practice patients (80.4%) and 1478/1848 public hospital patients responded (80.0%).

A total of 79.2% of all patients were comfortable with medical students interviewing them, and 60.2% with medical students examining them. In contrast, 98% of UK general practice patients experienced no disadvantage in seeing students (Bentham et al. 1999) and 90.4% of Australian general practice patients consent to medical students' presence during consultation (Salisbury et al. 2004). Parents were least comfortable about their children being examined by medical students while patients of 41–60 years age were most comfortable (adjusted OR = 2.10 [1.63–2.71]). Females were less comfortable with medical students' presence (adjusted OR = 0.68 [0.58–0.79]), interviewing them (adjusted OR = 0.74 [0.63–0.88]) and examining them (adjusted OR = 0.64 [0.56–0.73]) than males. Chinese patients were the least comfortable about being interviewed or examined by medical students among the ethnic groups. Indians were most comfortable with being interviewed by medical students (adjusted OR = 1.35 [1.00–1.83]), whereas Malays were the most comfortable being examined by them (adjusted OR = 1.31 [1.07–1.62]). Patients from private family practice

were the most comfortable with medical student teaching (84.2%), followed by public family practice (79.9%), then specialist outpatient clinics (77.0%).

Although the questions asked were different between studies, our findings suggest that Asian patients are less accepting of medical student teaching. With Asians being the fastest growing ethnic group among patients in the US and UK, sensitivity to the social and cultural norms among Asian populations and even sub-populations may need to be emphasized during medical student training. Our study also offers another reason for hospital-centric medical school curricula to move towards primary care settings. Family practices are often under-utilized as training centres and may offer a more receptive environment for medical students to access clinical teaching encounters.

Gerald Choon-Huat Koh, Wong Teck Yee &
Cheong Seng Kwing
Department of Community
Occupational & Family Medicine
Yong Loo Lin School of Medicine
National University of Singapore, Singapore
Email: cofkohch@nus.edu.sg

Erle Lim Chuen Hian & Raymond Seet Chee Seong
Department of Medicine
Yong Loo Lin School of Medicine
National University of Singapore
Singapore

Tang Wern Ee
National Healthcare Group Polyclinics
Singapore

Chua Chi Siong
SingHealth Polyclinics
Singapore

References

- Bentham J, Burke J, Clark J, Svoboda C, Vallance G, Yeow M. 1999. Students conducting consultations in general practice and the acceptability to patients. *Med Educ* 33:686–687.
- Salisbury K, Farmer EA, Vnuk A. 2004. Patients' views on the training of medical students in Australian general practice settings. *Aust Fam Physician* 33:281–283.

Integrity during medical studies: Survey at a faculty of medicine in Israel

Dear Sir

Unprofessional behaviour of medical students correlates with subsequent disciplinary actions after entering professional practice. Cheating and other unethical behaviour in school

could have an important impact on professionalism in medicine. The integrity of students during their studies was investigated in a leading Faculty of Medicine in Israel. Anonymous questionnaires with both closed and open-ended questions were distributed to 300 medical students in pre-clinical and clinical years, 100 senior and junior teachers, and 27 proctors; the response rates were 90, 31 and 63%, respectively. Over 80% of students reported that they or their classmates had cheated at exams or at exercises and/or behaved unethically in clinical training (such as performing intimate examinations without patient's consent) at least once. The majority of students considered these actions as morally wrong. Religious students reported slightly, but significantly, less cheating than non-religious students ($p < 0.05$). Students viewed chances of being caught as low and reported that they would be less likely to engage in dishonest activity had they believed punishment might be severe. Teachers and proctors estimated that less than half of students were cheating; most admitted that university regulations with regard to cheating fail to serve as effective deterrence, as enforcement was poor: reports about cheating students failed to lead to disciplinary actions for fear of legal implications. Teachers were often reluctant to speak about the problem (as also evidenced by a low response rate), and feared that sending strong discipline messages might lead to negative grades on students feedback on their course. In conclusion, unethical behaviour among medical students is pervasive in pre-clinical and clinical years, as reported by others. A large survey of medical schools in the US over 10 years ago reported less than 5% of students involved in cheating (Baldwin et al. 1996) but many other and more recent studies indicate a majority of students are cheating (Semerci 2006). A rise in the prevalence of cheating may be true or only apparent if students are less ashamed today than in the past to report on it. A new finding of the present survey is that dishonesty is underestimated, denied and neglected by teachers for various reasons, such as fear of feedback, litigation and rejection of the problem as part of their teaching responsibilities. Educating for values at medical school is an urgent and challenging task that deserves more research and new policies.

Ofer Butt
Center for Clinical Quality and Safety
Hadassah Medical Center
Jerusalem
Israel

Robert Cohen
Faculty of Medicine
Center for Medical Education
Hebrew University Jerusalem
Israel

Mayer Brezis
Center for Health Policy/Center on Primary Care
and Outcomes Research
117 Encina Commons
Stanford University
Stanford
CA 94305-6019, USA
Email: mbrezis@gmail.com

References

- Baldwin Jr DC, Daugherty SR, Rowley BD, Schwarz MD. 1996. Cheating in medical school: A survey of second-year students at 31 schools. *Acad Med* 71(3):267–273.
- Semerçi Ç. 2006. The opinions of medicine faculty students regarding cheating in relation to Kohlberg's moral development concept. *Social Behav Personality* 34(1):41–50.

A mid-week session: An effective learning method in problem-based learning

Dear Sir

Group learning facilitates the acquisition of knowledge, communication skills, teamwork, problem solving, independent responsibility for learning, sharing information and respect for others (Peterson 1997; De Grave et al. 2001).

It was noted that there are many challenges for the implementation of problem-based learning (PBL) such as defects in interpersonal communications and self directed learning. These challenges may affect the students' performance in the small group discussion and their achievements in exams. We assumed that introducing an extra session (mid-week session) might improve.

We conducted a study to evaluate the effect of the mid-week session on the students' performance. The study was applied to the third-year medical students (36 students). The students were randomly divided into two groups. A mid-week session (a session between the brain storming and the debriefing sessions) was conducted in haematopoietic and immunology units to one group (intervened group). The other group was used as a control. A questionnaire was designed to express the students' perception about the mid-week session.

The results showed that the scores of the intervened group were significantly higher in end (ANOVA = 0.000005) and mid (ANOVA = 0.023) units examinations. Furthermore the intervened group achievements in the tutorial classes of the problem solving were significantly better than control group. Finally, students had a positive perception about the mid-week session and all of them agreed that this extra session improved their utilization of the educational resources. Most of the students agreed that the session stimulated them to study immediately after the brain-storming sessions and the mid-week session improved their performance, the interpersonal communications, motivation and the teaming (Peterson 1997).

In conclusion, the mid-week session has a good impact on the students' performance and achievement and need to be officially generalized in the medical schools adopting the PBL strategy.

Mahmoud Salah Khalil
Faculty of Medicine
King Fahad Medical City
P.O. Box 59046 Riyadh 11525

Saudi Arabia

Email: msalah28@hotmail.com

Mohammad Othman Alrukban
Faculty of Medicine
King Fahad Medical City
P.O. Box 59046 Riyadh 11525
Saudi Arabia

References

- De Grave WS, Schmidt HG, Boshuizen HPA. 2001. Effects of problem-based discussion on studying a subsequent text: A randomized trial among first year medical students. *Instruc Sci* 29(1):33–44.
- Peterson M. 1997. A team-based approach to problem-based learning: An evaluation of structured team problem solving. *J Excel College Teach* 7(3):129–153.

Promoting teamwork through team OSCEs

Dear Sir

The General Medical Council (GMC) is keen on developing the teamworking skills of medical students and doctors. Traditional undergraduate curricula in United Kingdom medical schools focus on technical competence through lectures and tutorials, and the provision of care in the traditional setting of one doctor and one patient. This promotes individual learning rather than teamworking.

A medical career requires talented, ambitious students, and though large numbers of applicants mean that competition for places is fierce, it seems reasonable for the formative, fact-driven preclinical years to remain competitive. Success at that stage could be used to better identify those most suited to the demands of a medical career, but once a solid knowledge-base has been established, the pedagogic approach could evolve to encourage teamworking rather than individualism. Problem-based learning and clinical workshops attempt to do that but without team-based assessments, such as Team Objective Structured Clinical Examinations (TOSCEs), such efforts may prove futile. Both teamwork and traditional clinical skills require assessment and TOSCEs combine these requirements into one format.

TOSCEs have been evaluated in clinical students by Singleton et al. (1999) although this may have had more to do with the convenience of testing several students at a time rather than assessing their ability to work in teams. Symonds et al. (2003) suggested that inter-professional TOSCEs used to assess student midwives and medical students on clinical skills and teamwork can encourage students to work together by 'promoting a team attitude towards problem management'. However, TOSCEs are not currently in widespread use despite the GMC's recommendations and positive feedback from the few studies that have reported the concept.

We suggest that medical schools introduce TOSCEs that require teams of medical students to rotate through traditional

OSCE stations. Assessors would mark individual students for their knowledge, skills and teamwork. Students could also evaluate each other for the level of teamwork demonstrated and reduce free-rider effects to which the potential lack of individual accountability could give rise.

Muhammad A. Zamir
Timothy D. Heymann
Imperial College School of Medicine
Exhibition Road
South Kensington

London SW7 2AZ, UK
E-mail: muhammad.zamir@imperial.ac.uk

References

- Singleton A, Smith F, Harris T, Ross-Harper R, Hilton S. 1999. An evaluation of the TOSCE. *Med Educ* 33(1):34.
- Symonds I, Cullen L, Fraser D. 2003. Evaluation of a formative interprofessional team objective structured clinical examination (ITOSCE): A method of shared learning in maternity education. *Med Teach* 25(1):38–41.