Using virtual patients to teach medical ethics, medical law and medical professionalism

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Undergraduate teaching in the outpatient clinic: Can we do better?

Dear Sir

Outpatient clinics offer students the opportunity to observe the process of a consultation in the outpatient setting: a skill important to develop at an early stage of clinical training. In rheumatology a reduction in the number of inpatients has led to a shift in clinical teaching to outpatient clinics. Our medical students spend six weeks in musculoskeletal medicine and the majority of their teaching will be in the outpatient clinic. The mode of teaching in this environment is fundamentally distinct from the traditional bedside teaching, as it is opportunistic and conducted in parallel to service provision. We attempted to determine what factors might contribute to an effective teaching experience in the clinic. We surveyed the attitudes of patients attending clinic (44 adult patients surveyed over four weeks), medical students (44 students surveyed at the end of their musculoskeletal medicine block) and clinical teachers (11 clinical teachers involved in teaching in clinic).

In our survey most students described their participation as 'passive' with only a fifth of students reporting seeing patients independently to obtain a history, perform a physical examination and present their findings to the clinician. Students performed a physical examination in 52% of their encounters with patients in clinic; however, this was observed by a clinician in only 18% of cases. When asked how students would like to participate in clinic, 86% of students wished to see patients alone and then present their findings and 91% wished to be observed performing a clinical examination by the teacher. Students who had the opportunity to participate more actively in clinic reported more confidence in clinical skills such as history taking and clinical examination. Patients also expressed their willingness to be more actively involved in teaching with 95% of patients reporting a willingness to be examined by students and 48% willing to spend time with students alone in clinic. Our results suggest that to improve the teaching experience in clinic we must, when possible, allow students the opportunity to talk to patients, perform clinical examinations and facilitate part of the patient consultation. The pressure of service provision and time and space within the clinic environment are potential barriers which must be overcome if we are to increase the learning opportunities that students encounter in clinic.

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It has long been understood that there are many good reasons for using virtual patient (VP) cases in medical education (Botezatu et al. 2010). This is partly because VPs engage students but it is also because VPs have been shown to improve student's knowledge, clinical reasoning and decision-making skills (Cook & Triola et al. 2009). However, although VPs have been used in a range of different contexts in medical education, they have never previously been used to facilitate the teaching of medical ethics, medical law or medical professionalism.

To rectify this omission eight ethics virtual patient (EVP) cases were created at St George's, University of London between October 2008 and April 2011. Four of these cases were then used in different large and small group teaching sessions. Feedback from the students was collected at the end of each session using a questionnaire.

Six hundred and one students (77%) completed the feedback form and the general response of the student to the EVP cases was extremely positive. For example, the vast majority (85%) strongly agreed or agreed that EVPs were an effective way of gaining knowledge about medical ethics and 85% also thought that using EVP cases made them more confident to make ethical decisions. 95.2% also agreed or strongly agreed that using the EVP cases encouraged deliberation, debate and interaction.

Our research demonstrates that EVP cases can be deployed effectively in both large and small group teaching sessions and although we do not think that EVP cases are a pedagogical panacea, we do think that they are an important new development. Further research is certainly needed to determine whether or not using EVPs actually influence knowledge retention, ethical reasoning and ethical decision-making ability, but the evidence that we have collected thus far suggests that EVPs have a promising future.

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Serious games for patient safety education

Dear Sir

Learning to communicate and collaborate effectively within an interprofessional healthcare team is key to improving patient safety. One of the barriers to this learning is a culture where team members do not feel psychologically safe to speak up or make decisions that might improve patient safety.

With serious games – or video games for educational purposes – the learner can explore and learn about patient safety issues on their own in a safe environment before encountering challenges in the real world. Serious games engage the learner through exploration and experimentation, and support learning through increased visualization and creativity (Westera et al. 2008; Mansour & El-Said 2009).This experience can be enhanced through debriefing exercises facilitated by an instructor or reflective practice.

The purpose of this study is to pilot test an inexpensive prototype of a serious game with a group of interprofessional health students to determine if the game provides opportunities to learn about patient safety. The game was constructed around a series of scenarios created in consultation with a physician, enabling the player to explore patient safety-related learning objectives within a virtual hospital setting. Players enter into conversations with characters and choose what response to provide from a given selection. At the end of the game, students review their actions, and are provided feedback about their choices.

Fourteen participants tested the prototype and filled out the questionnaire. The evaluation of the prototype demonstrated that there is potential for this tool to help students learn to overcome some of the barriers to communications and teamwork that can lead to improved patient safety. The participants enjoyed playing the game, learned something about team communications and thought this was a valid method for learning about patient safety. In addition, this game would be of great benefit to teaching through reflective practice.

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In the wake of higher education reform: The admission criterion mean baccalaureate grade revisited

Dear Sir

A Lancet editorial in 1948 (Lancet 1948) commented that school leaving grades 'may sometimes operate unfairly against the brilliant but erratic'. Nevertheless, school leaving grades still serve as the primary instrument for admission of medical students in most countries and the literature attributes to them better prognostic validity than other admission instruments. Yet, undergraduate medical curricula have undergone major reforms in recent years. Learner-centred, problem-oriented and extensive practical training have replaced the traditional chalk and talk lectures. It seems important, therefore, to reassess the prognostic value of school graduation grades for performance in modern medical education.

We therefore monitored the in-course performance of students of three consecutive cohorts during the pre-clinical 2 years and compared them to their mean baccalaureate grades (bGrades). Students with best bGrades (1.0–1.3) had been admitted directly; those with worse bGrades had been admitted by the constitutionally guaranteed latency quota after a waiting time of several years. Admission of the first two cohorts had been based almost exclusively on bGrades, that of the third cohort also on the newly integrated Test for Medical Studies (TMS).

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