portraying common cases of shoulder and knee pain. We assigned a group of 8 medical students (n = 141) to each PTSP. Students were given specific roles: taking a brief history; performing a symptom-focused physical examination, or observing and providing feedback.

The session began with 2 concurrent shoulder cases in which a PTSP guided a group of medical students in interviewing and physical examination skills. After 45 minutes of data-gathering and peer-topeer feedback, 2 groups with different cases combined to present their findings for 2 faculty cofacilitators representing anatomy and clinical medicine. Specific students were assigned to present the case history in front of the group; others demonstrated physical examination findings. Anatomy faculty members then highlighted the underlying anatomical principles and surface anatomy for each case. Finally, doctor-facilitators offered feedback on the students' oral presentations and physical examination demonstrations, elicited a differential diagnosis from the group, and gave therapeutic suggestions. The process was then repeated with 2 cases of knee pain.

Evaluation of results and impact We elicited feedback from all levels of workshop participants in several domains using a Likert scale of 1-5 (1 = strongly disagree, 5 = strongly agree). Medical students (n = 137; 97%) appreciated the expertise of the PTSP (4.8), enjoyed learning from the PTSP (4.7), improved their approach to musculoskeletal problems (4.5), and felt able to apply knowledge of underlying anatomy (4.4). The PTSPs (n = 16; 100%) felt that their expertise helped medical students (4.4) and felt that the exercise improved their teaching about shoulder and knee problems (4.3). Faculty members (n = 13; 81%) found that it was valuable for PTSPs to teach medical students (4.8) and that the exercise helped medical students apply anatomy to clinical cases (4.6). Students would have liked more time for practice. Some groups spontaneously held brief sessions that allowed the PTSPs to describe their training and to discover ways in which all could work best as a team.

Overall, this multidisciplinary workshop transparently showed medical students the bridge between basic anatomy content and physical examination skills. The process of the workshop emphasised learner-centred learning and simulated data gathering and case presentation to supervising faculty in a clinical situation. Finally, the exercise fostered mutual respect and a collaborative spirit among members of 3 separate disciplines – anatomy, physical therapy and medicine. *Correspondence*: Dr Calvin L Chou, Department of Medicine, Veterans Affairs Medical Center, 4150 Clement Street (111), San Francisco, California 94121, USA. Tel: 00 1 415 221 4810 ext. 2740; Fax: 00 1 415 750 6982; E-mail: calvin.chou@ucsf.edu

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Peer-level multiple source feedback for fitness to practice

Kevin M Tyler

Context and setting The attitude of tomorrow's doctors is considered vital, as ineffective and inappropriate communication between patients and clinical staff remains the greatest source of patient dissatisfaction. It is therefore important to integrate evaluation of medical student attitudes into the modern medical curriculum alongside problemorientated and evidence-based group learning approaches. The use of multiple-source feedback by peers is an attractive potential tool.

Why the idea was necessary The use of 360-degree evaluation utilises multiple, independent perspectives to assess teamwork, communication skills, management skills and clinical decision making. This type of multiple source feedback can be a powerful driver for attitude development, particularly when incorporating the views of peers from a shared working environment. Its increasing and widespread use in medical practice means that it is desirable to familiarise students to this process early in their training. What was done Fitness-to-practice evaluation forms, normally completed for each student by 3 tutors with close student contact, were distributed to members of a problem-based learning (PBL) group. Students completed forms for each of the other group members and results were compared to those prepared by the tutors. Results for each group member were presented to them in individual interviews. Evaluation of the results and impact Sets of 3 tutor reports were compared for each student; 8 criteria were examined. Of 240 scores obtained only 42 varied from the modal value – a very close (82.5%)correlation; 44 scores were exceptional (18%) and no unsatisfactory scores were given in the semester chosen.

A total of 8 peer reports were compared for each student. From 584 scores only 155 varied from the modal value of each criterion, indicating good (74%) correlation – only marginally less than the degree of correlation observed between tutors. In 245 out of 584, scores were in the exceptional category (42%), far higher that those obtained from tutors. Scores in 10 out of 584 (2%) were unsatisfactory: still low, but significantly higher than the tutors' scores, indicating more polarity in the students' marking of each other. Peer reports were sharply critical in places, although these criticisms had not surfaced previously during PBL tutorials. Students felt liberated by the exercise to voice criticisms in areas inaccessible to academic and clinical tutors.

Tutor scores did not correlate well with student scores, with 99 of the 240 scores diverging from the student modal value (59% correlation), reflecting the increased general scoring of the students compared with tutors.

Self-evaluations also correlated poorly, with scores diverging from peers (65% correlation) and tutors (55% correlation). Students appeared to find it difficult to be honest and objective about their own performance. The use of self-assessment, however, was perceived as a useful tool formatively, as it emphasised to the student how their self-perception conflicted with how others perceived them, prompting reconciliation.

Students' peer evaluations gauged and compensated accurately for extenuating circumstances, which tutors could not. Students reacted strongly to behaviour which affected them directly, making their evaluations more polar, and found difficulty in evaluating close colleagues objectively, suggesting that moderation might be necessary for utility in summative evaluation.

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Using residents as standardised patients in objective structured clinical examinations

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Context and setting The China Medical University Departments of Medicine and Chinese Medicine run a 7-year medical curriculum with approximately 210 students per graduating class. The 5th year of medical student training in Taiwan is equal to year 3 in the United States and the 7th year is internship. The integrated curriculum for 4th- and 5th-year medical students (M4 and M5) was introduced in 2001 and is divided into 12 organ-system-formatted blocks. Each block included a 4-hour clinical skills and communication course. The students from both departments were taught the same clinical skills curriculum. Why the idea was necessary Taiwan lags behind other developed countries in introducing the objective structured clinical examination (OSCE). The first OSCE in our school was initiated in June 2004, at the end of M5. Establishing and maintaining an active standardised patient (SP) programme requires a tremendous amount of manpower and financial support. We considered that if we could design a programme of training residents to function as SPs (resident-SPs), many of these problems in medical schools with limited resources may be alleviated. What was done The modified OSCE was first performed in January 2005, at the end of the first semester of M5. Senior residents from the clinical departments attached to the 3 curriculum blocks attended a 10-hour workshop. This workshop included guidelines for scenario development, SP training and the use of checklists to evaluate students. Resident-SPs were evaluated after the workshop on their understanding of the OSCE, ability to develop scenarios and competency as a SP. A total of 216 M5 students participated in an OSCE consisting of 4 problems. Each problem was divided into two 5minute stations: a performance station with a resident-SP and an answer station where students completed the written test. Two tracks of the examination were run simultaneously. Sixteen students were examined in a single circuit. The student and resident-SP encounter were videotaped and reviewed. Evaluation of the results and impact According to the questionnaires, although 87.5% of resident-SPs thought their performance achieved a high-level of accuracy and consistency, all resident-SPs were considered competent when the videotapes were reviewed. Resident-SPs considered that students treated them as real patients in 75% of encounters. All resident-SPs reported the experience would be helpful in improving their teaching skills.

Most students (92.9%) felt that the OSCE experience was helpful to their professional development, 90.1% considered the resident-SPs' performances were like real patients and 74.1% felt that they treated resident-SPs as real patients. Up to 85.6% felt that there was no or only a small difference in their performance when clinical teachers were used as resident-SPs in the OSCE, and that they performed to at least 70% of their usual level. Encounter time in the performance stations was considered adequate by 71.9% of students, inadequate by 20.2% and too long by 7.9%, and for the written test the results were 65.8%, 5.7% and 28.5%, respectively.

Our resident-SPs programme OSCE is effective, economic and feasible. However, the possible psychological influence of resident-SPs on students' performance warrants further investigation. We are