Medical Teacher

ISSN: 0142-159X (Print) 1466-187X (Online) Journal homepage: informahealthcare.com/journals/imte20

Student reflections on learning cross-cultural skills through a 'cultural competence' OSCE

Elizabeth Miller & Alexander R. Green

To cite this article: Elizabeth Miller & Alexander R. Green (2007) Student reflections on learning cross-cultural skills through a 'cultural competence' OSCE, Medical Teacher, 29:4, e76-e84, DOI: 10.1080/01421590701266701

To link to this article: https://doi.org/10.1080/01421590701266701

2007; 29: e76–e84 MEDICAL TEACHER

WEB PAPER

Student reflections on learning cross-cultural skills through a 'cultural competence' OSCE

ELIZABETH MILLER[1] & ALEXANDER R. GREEN[2]

[1]Center for Reducing Health Disparities, UC Davis School of Medicine, USA, [2]Department of Medicine; Institute for Health Policy, Disparities Solutions Center; Massachusetts General Hospital, USA

Abstract

Background: Medical schools use OSCEs (objective structured clinical examinations) to assess students' clinical knowledge and skills, but the use of OSCEs in the teaching and assessment of cross-cultural care has not been well described.

Objectives: To examine medical students' reflections on a cultural competence OSCE station as an educational experience.

Design and Setting: Students at Harvard Medical School in Boston completed a 'cultural competence' OSCE station (about a patient with uncontrolled hypertension and medication non-adherence). Individual semi-structured interviews were conducted with a convenience sample of twenty-two second year medical students, which were recorded, transcribed, and analysed.

Measurements and Results: Students' reflections on what they learned as the essence of the case encompassed three categories: (1) eliciting the patient's perspective on their illness; (2) examining how and why patients take their medications and inquiring about alternative therapies; and (3) exploring the range of social and cultural factors associated with medication non-adherence.

Conclusions: A cultural competence OSCE station that focuses on eliciting patients' perspectives and exploring medication non-adherence can serve as a unique and valuable teaching tool. The cultural competence OSCE station may be one pedagogic method for incorporating cross-cultural care into medical school curricula.

Background

Medical schools are increasingly using OSCEs (objective structured clinical examinations) to assess students' clinical knowledge and skills, with OSCEs now part of the National Medical Board examination. In addition, medical educators have documented the utility of OSCEs as teaching tools to help students synthesize and integrate knowledge, medical interviewing, and clinical examination skills (Mavis et al. 1996; Li 1996; Stimmel 1996; Tervo et al. 1997; Brazeau et al. 2002; Hamann et al. 2002; Simon et al. 2002; Adamo 2003; Alinier 2003; Rushforth 2006). In particular, OSCEs have been incorporated in both teaching and assessing communication skills (Yedidia et al. 2003; Deveugele et al. 2005; Nuovo et al. 2006; Rider et al. 2006; Ishikawa et al. 2006; Yudkowsky et al. 2006), including for addressing challenging topics such as palliative care and substance use counseling (Matthews et al. 2002; Sloan et al. 2002; Stein et al. 2005; Parish et al. 2006).

OSCEs may be a useful assessment as well as teaching tool for cross-cultural care education (Dogra & Wass 2006). Recognizing the importance of educating health care professionals to provide culturally and linguistically responsive care, the Liaison Committee on Medical Education has added *cultural competence* as a standard for accrediting medical schools (Liaison Committee on Medical Education 2004). Multiple cross-cultural curricula have been developed across medical schools and residency programs with a growing emphasis on developing a set of skills in caring for patients from a range of diverse backgrounds rather than simply providing culture-specific (and often stereotypic) information (Tervalon and Murray-Garcia 1998; Carrillo et al. 1999; Flores et al. 2000; Nunez 2000; Green et al. 2002; Whitcomb 2002; Betancourt et al. 2003; Betancourt 2004; Champaneria and Axtell 2004; Harris et al. 2004; Beach et al. 2005; Kripalani et al. 2006). Eliciting cross-cultural factors (including literacy, use of interpreters, health beliefs, alternative/complementary medicine) have been added into existing communication skills training as well as discussions of cultural and social factors embedded into case-based learning. Most cultural competency

Practice points

- A 'Cultural Competence' OSCE can be helpful in the teaching of knowledge and skills in cross-cultural care, but should not be used as an isolated cross-cultural care teaching tool.
- Medical students note that the OSCE station helped to bring theoretical concepts from lectures on cross-cultural care into practice.
- Creating a 'cultural competence' OSCE requires careful attention to faculty development, training of standardized patients, and preparation of students.
- A 'cultural competence' OSCE station that focuses on eliciting patients' perspectives and exploring social and cultural factors for medication non-adherence can serve as a unique and valuable teaching tool.

Correspondence: Elizabeth Miller, MD, PhD, Center for Reducing Health Disparities, UC Davis School of Medicine, CRISP 2921, Stockton Blvd. Suite 1400, Sacramento, CA 95817, USA. Email: elizabeth.miller@ucdmc.ucdavis.edu

ISSN 0142–159X print/ISSN 1466–187X online/07/040076–9 © 2007 Informa UK Ltd.
DOI: 10.1080/01421590701266701

curricula have emphasized the impact of cultural and social contexts on patients' illness experiences using didactics and case-based methods. Fewer have focused on teaching and evaluating skills specific to cross-cultural care that include using interpreters, assessing health literacy and low-literacy, inquiring about complementary and alternative therapies, asking about barriers to care, and identifying patients' and families' health beliefs.

Information about medical schools utilizing 'cultural OSCEs' is limited with few published descriptions or studies (Dogra & Wass 2006; Altshuler & Kachur 2001; Robins et al. 2001; Rosen et al. 2004). Some residency programs incorporate standardized patients, video taping and role play to develop skills in caring for patients from diverse cultures (Altshuler and Kachur 2001; Harris et al. 2004; Rosen et al. 2004). One example is an intensive, $1\frac{1}{2}$-day teaching OSCE workshop for third-year medical students focused exclusively on cultural competence, with improvements in students' cross-cultural communication skills noted (Rosen et al. 2004); another article describes a six-station formative cultural OSCE for pediatric residents (Altshuler & Kachur 2001). Such extensive practice-based cross-cultural care workshops are still uncommon in medical school curricula. Given the realities of time constraints in most medical schools, we asked whether a single OSCE station focused on assessing cross-cultural care skills could have any impact on students' knowledge and attitudes toward cultural competence training. This paper reports on medical students' reflections on a 'cultural OSCE' station that was created to supplement an existing OSCE experience at the end of second year.

In their first two years, Harvard Medical School (HMS) students participate in a series of didactic and small-group sessions on cross-cultural care. They reflect on video examples of patients from diverse backgrounds, learn about health and health care disparities, and develop a patient-based framework for approaching the social and cultural contexts of all patients (Carrillo et al. 1999; Green et al. 2002; Betancourt et al. 2003). Students also receive a primer on cross-cultural care—a two-page reference sheet that outlines key concepts and questions to include in the medical interview. The primer covers strategies for eliciting patients' understanding of illness as well as their social context (language, literacy, socioeconomic status, insurance, immigration experience, etc.), rather than offering any culture-specific information that could promote stereotypic thinking. In most traditional OSCE stations, students have little opportunity to demonstrate these particular cross-cultural skills.

All second-year students engage in an intensive OSCE experience composed of six 20-minute stations focusing on history-taking and physical exam skills that culminates the required Patient-Doctor II course. In 2003, HMS faculty involved in cultural competency education adapted a patient case focusing on cross-cultural care to fit the OSCE format, adding this as a seventh station (Green et al. in press). The case of a 56 year-old Dominican woman with poorly controlled hypertension was chosen as this presented a common clinical scenario with multiple aspects related to the patient's unique sociocultural perspective relevant to general patient care. The goal of the station was for students to determine the reason for the patient's poor blood pressure control (she only takes her medication when feeling stressed or anxious) and to identify some sociocultural factors underlying this nonadherence (her different understanding of hypertension, use of herbal remedies in place of medication, inability to read pill bottles, etc.).

At the start of the station students received brief written information about the patient and the timing for the station (Appendix 1). We recruited 12 Latina, bilingual SPs who were trained to provide information about sociocultural issues and medication non-adherence when students asked appropriate, open-ended questions. The 22 faculty observers also received additional instruction on this station. The evaluation involved checklists completed by both faculty observers and SPs. The faculty checklist included whether or not students asked specific questions and elicited essential information from a medical and cross-cultural perspective (i.e., whether they asked an explanatory model question, whether they identified medication nonadherence and uncovered reasons for the nonadherence such as literacy, alternative remedies, and different health beliefs). The SP checklist assessed student performance (1 to 5 rating) on communication and rapport. The station was intended as both a teaching tool and an assessment of students' cross-cultural history taking and communication skills. Students were aware that cultural competence would be assessed in the OSCE, but were not told which station. Although the OSCE results do not impact their final grade, students perceive this as a 'high stakes' examination.

While ideally cross-cultural skills should be assessed across all stations, due to time constraints and limited resources, we were able to append this particular station to the second-year OSCE. The existing stations had established checklists for communication skills more broadly, but did not specifically assess cross-cultural care skills. We designed this separate station to address this gap in assessment and also to create another learning opportunity to highlight cross-cultural care. We performed semi-structured interviews with students who had recently completed the OSCE to explore the value of a single 'cultural competence' OSCE station as a teaching tool. Specifically we examined students' perceptions about the goals of the station, what they took home from this experience, and whether the experience assisted them in identifying learning needs.

Methods

Recruitment and sample

All second year HMS students had completed the cultural competence OSCE station as part of the broader OSCE experience (six other stations) within the previous four weeks. This evaluation is incorporated into *Patient Doctor II*, a required course for second-year students on medical interviewing and clinical examination. All students in this course take one afternoon or evening going sequentially through all seven OSCE stations. We recruited a convenience

Table 1. Comparison of demographic characteristics of study participants to the overall class and participants' self-rating on this 'cultural competence' station.

Student sample description	Total participants $n = 22$ (%)	Total in class $n = 166$ (%)
Sex		
Female	14 (64)	90 (54)
Male	8 (36)	76 (46)
Race/Ethnicity		
White/Caucasian	10 (45)	71 (43)
Black and Hispanic*	5 (23)	42 (25)
Asian-American†	7 (32)	48 (29)
Other	0 (0)	5 (3)
Students' self-rating		
Students who reported 'doing well' on the station	6 (27)	–
Students who reported feeling challenged by the station	13 (59)	–
Students who reported doing 'poorly' or 'failing' the station	3 (14)	–

*2 African-American, 2 Latino, 1 Haitian. †4 East Asian, 3 South Asian.

sample of 22 second-year medical students through email invitations to the entire class (166 students), offering a $10 gift certificate for participation. Table 1 shows sample characteristics, with more females than the class overall (54%), and balanced in terms of percent of underrepresented minority students. Students' self-reports of their performance reflected a bell-shaped curve from poor to good.

Interview process

Both authors conducted one-on-one semi-structured interviews in private rooms at the medical school. We developed an interview guide (see Appendix 2) to explore what students thought was the essence of the case, what they may have learned from the experience, the logistics of the station and the content of the case. The interviewers explained the procedures and goals of the study, including confidentiality of responses, and obtained verbal consent. Interviews lasted approximately 20 to 30 minutes. The protocol was reviewed by the Office of Educational Development at HMS, and approved by the HMS Human Subjects Research Committee.

Data analysis

All interviews were audiotaped and transcribed verbatim. The authors and a research assistant used a random subset of five transcripts to develop a list of provisional themes and subthemes related to the interview questions. Each transcript was reviewed and coded for these themes by these three investigators. Differences in coding were discussed until consensus achieved. Additional themes were added as these emerged, and the range of responses confirmed through an iterative process of multiple reviews of the transcripts, using the method of thematic analysis described by Ryan and Bernard (Patton 1990; Ryan & Bernard 2000).

Results

When asked to assess their own performance on the cultural competence station, 6 students reported doing well, 13 students reported identifying significant gaps in their knowledge and skills, and 3 students reported 'failing' the station.

To address the question of what students may have learned in this 'cultural competence' OSCE station, interviews were reviewed for students' views on the essence of the case, take home points, and what 'cultural competence' means to them. Specific attention was paid to reflections on how this OSCE experience was (or was not) useful in their learning, and whether the experience might influence how they would approach future clinical encounters. Detailed disucssion about logistics and design of the station, including faculty and SP feedback and challenges related to implementation, have been reported separately (Green et al. 2007). Here, we focus on students' reflections on learning skills in cross-cultural care and the potential impact of a 'cultural competence' OSCE as a teaching tool.

The essence of the case—Student reflections on 'take-home points'. The range of responses about what students understood to be the essence of the case (summarized in Table 2) fell into three categories: (1) the importance of eliciting the patient's perspective on their illness in a culturally sensitive way (i.e., eliciting the patient's 'explanatory model'); (2) the need to examine how and why patients take their medications and to inquire about complementary and alternative therapies; and (3) the importance of exploring the range of social and cultural factors associated with medication non-adherence (including linguistic barriers, low literacy, different health beliefs, financial barriers, insurance status, etc.).

Table 2. Student Perspectives on the Primary Purpose of this OSCE station.

Student reflections on the central 'rake home' points from this case	% of responses (total exceeds 100% due to overlapping responses)	Sample student quotes in response to ''What did you think was the essence of this case?''
Eliciting the patients' perspectives and understanding of their illness (the 'explanatory model')	41% (9)	''Just how to approach a patient who doesn't speak English as a first language, the ways of asking questions about what they understand about the disease and how they take their medications.''
		''I guess thinking about patients understanding of their disease and the medication you give them to take which was really key to think about.''
Asking patients about how they take their medications, and about whether they utilize complementary or alternative therapies	45% (10)	''Just that for all real patients, you should ask if they're taking their medications and how regularly they take them and if they're taking them at the prescribed dose. If they have any problems affording the medications, side effects that may be causing them not to take their medications and just how they feel on the meds; what they think they're taking the medication for.''
		''I think just, well one thing would be just remembering to ask about alternative types of medications, instead of just regular prescription medications, asking about any vitamins or herbal supplements, or any types cause I think our patient said something about, you know, herbal tea, that she got from some kind of cultural store. So that was one at least one concrete thing that I will remember.''
Exploring the range of reasons for medication non-adherence including literacy, language barriers, health beliefs, insurance status, financial barriers	41% (9)	''I think that the point of the case would have been to figure out everything that might be potentially leading to medication non-compliance, and therefore, out of control hypertension.''
		''I think it's good to get to the idea of why people are not compliant, and so I think, not just because there are side effects, so they don't want to take the medication, because maybe they don't have money to afford all of the medication, so try and stretch it out, and maybe it wasn't explained to them at the beginning that you need to take every single day, regardless of how you're feeling. So I think that was a take home point, to stress all the issues of non-compliance.''

Reflections on knowledge and skills acquired in this OSCE station. To explore what students may have learned through this station, we asked whether any elements of the OSCE experience might have changed their approach to the clinical encounter and the way they might practice. Students described a range of meaningful learning experiences from this station related to (1) exploring medication non-adherence in greater depth; (2) asking about the patient's perspectives and social context; and (3) inquiring about sensitive issues such as literacy and immigration status.

(1) Exploring the 'why' of medication non-adherence. Many students noted that while they were able to uncover the fact that the patient was not taking her medication regularly, they failed to explore why, assuming that she simply had not been educated adequately about the importance of taking her medication. One student noted, 'I think I did a decent job of figuring out what the problem was, as far as not actually taking medication. I don't think I did as good of a job with figuring out why'. This station helped students appreciate the utility of exploring reasons for non-adherence and not simply assuming a knowledge gap.

> "When she said she wasn't taking the medication . . . I automatically assumed that it was because she didn't understand the need for the medication, and I think that's really narrow-minded of me. I actually need to think more about the fact that she couldn't read the prescription bottle maybe, or the fact that she couldn't pay for other things. . . . Maybe there's something else in her life that's causing her not to take the medication."

(2) Eliciting and appreciating the value of the patient's perspective and social context. Expanding from this focus on medication non-adherence, many students remarked on how this station forced one to 'step back' and assess the social context, unlike the other stations that focused on a narrow history and physical diagnosis. They reflected on the need to inquire about patients' health beliefs, their understanding of the illness, and a range of sociocultural issues including literacy, alternative therapies, insurance, and immigration experiences. One student described how this realization came to her much later as she was reflecting on the OSCE.

> "Well, I made a mistake I think in retrospect, doing the station which was really educational for me, that I went too quickly to the counseling mode . . . I don't think I explored her reasons for not taking the medication, not really her understanding of the disease, and I think I went too quickly to the 'here's why you should do this' point, and I couldn't figure it out for several hours afterwards, why I left feeling like something didn't go right. And then it clicked for me, and I actually think that that will help me a lot, because I don't think I would have learned that lesson from reading it from a book."

Students also discussed the challenge of remembering to ask directly about complementary and alternative therapies.

> "I know on most interviews, I just say, 'What medications are you on?' and if they didn't say that then, I don't know if I would think to ask [about alternative therapies], and I'm sure that I'd be surprised, cause even if it wasn't obvious, like even if I didn't go in and sit down, and if they had an obvious accent, or if they immigrated you know, 2 years ago or something, I think that it's probably important to ask about supplements."

(3) Exploring literacy and other potentially sensitive issues. A number of students underlined how the OSCE station helped them develop confidence to ask directly about potentially sensitive issues; during feedback, faculty provided students with actual ways to ask about difficult topics. "For me particularly, I learned about, just ask about money, ask about immigration, and ask about insurance. Don't be worried about it." Another student reflected specifically on the challenges of asking about literacy.

> "One of the things I came away with I'm gonna definitely take with me; ask if they read. Find out how much they can comprehend of what we give; prescriptions and stuff like that. Also kind of their family dynamics and who helps them with their healthcare. I think in her case, it was her son or her brother . . . obviously there was someone telling her what to do with her meds. I had forgotten to ask her if she read and what was on the bottle."

Reflections on incorporating cross-cultural education into the OSCE. Most students found this particular station more challenging than the other stations, and in some instances humbling: "I know for a fact that some of my colleagues really saw it as a wake up call, in the sense that, 'Oh my, I'm really not very culturally competent.' Or, 'I just haven't been faced with these situations before.'" In their reflections on the overall OSCE experience, students commented on how this station was a powerful reminder of patients' social realities that impact illness and health.

> "I sort of failed on finding out why she wasn't taking her medicine, or why she was still having hypertension, and having it in the clinical evaluation, or in an evaluation setting like that, sort of just reminds you every time to then think about that in your clinical practice too. I kind of relate it to you know, the word I got wrong in the 2nd grade spelling bee. I always remember what that word was."

In addition to the role of this particular OSCE station in reminding students of the importance of a cross-cultural framework in all clinical encounters, students remarked on how this station highlighted for them particular gaps in interviewing and communication skills that they would like to continue to develop in practice.

> "It did make me realize that I hadn't had a lot of practice, putting the awareness I have of cultural competency of issues, of barriers, of different medications usage, of what not, actually into practice."
>
> "I would like to have more experience, actually. It's very good in theory, you can read as much as you want, but being able to be in the situation and ask questions and really delve deeper really takes a little bit more clinical skills that I hope to develop."

Reflections on cultural competence. A number of students spontaneously offered perspectives about what constitutes 'cultural competence.' They questioned approaches that stereotype minority and immigrant patients including criticizing this station for presenting a Latina woman that could be misinterpreted as a generalization about Latinos and medication nonadherence. Many students expressed frustration that these cross-cultural skills were not more embedded throughout the OSCE stations, demonstrating an underlying appreciation of the importance of cross-cultural skills in all clinical encounters. The challenge of choosing an illustrative case in the design of this OSCE is described elsewhere (Green et al. 2007). Here we emphasize the ways in which this OSCE station helped students solidify their thinking about cross-cultural care and their desire to move beyond stereotypic notions of race and ethnicity.

> "I found a lot of the cross-cultural . . . it's a very difficult sort of thing to teach because it's hard to be specific and then general. How do you show someone examples of culturally competent care and then say, 'Well, you have to generalize this to everything.' Whenever you give an example like, certain patient populations have trouble with this, that's very specific to a certain thing, that's also not always true. It's sort of this double-edged sword."

Some students were particularly concerned that cross-cultural education extend beyond merely acknowledging differences in race/ethnicity.

> "Every time we talk about cultural competence it has to do with race and not about gender, religion, socioeconomic status, educational status. It's always about race. I don't think we had any other minority patients. . . . I don't want to say that I was offended, but I think that we really narrow the idea of cultural competence by having the only minority patient be about cultural competence."

Discussion

In this paper we describe reflections from a cohort of students who completed this 'cultural competence' station about how they felt this experience helped them to identify and learn cross-cultural skills. It is heartening that the students interviewed all identified to some extent the major learning objectives for this station. In addition, this station clearly identified gaps in knowledge and skills in cross-cultural care for the students, and provided a critical learning opportunity before they commenced their clinical years.

A challenge in teaching cross-cultural care in the context of traditional medical school curricula is finding points within the existing curriculum to introduce the knowledge and skills necessary to provide quality care to patients of diverse backgrounds. In particular, it is difficult to ensure that cross-cultural skills are not simply subsumed within medical interviewing or communication skills. We underscore that knowledge and skills around social and cultural context, language barriers and interpreters, the role of physician as advocate, and awareness of disparities in health and health care are among the critical components of cross-cultural care education that extend beyond general patient-physician communication. As noted above, this OSCE station was one of multiple points in the medical school curriculum for incorporating educational experiences in cross-cultural care.

Students were certainly critical about this station being so distinct from the other OSCE stations and the potential unintended marginalization of 'cultural competence'. This feedback has led us to incorporate social and cultural factors more deliberately into the other OSCE stations. A specific OSCE station on cross-cultural care cannot happen in isolation, but should be framed carefully in the context of teaching these skills at multiple points in the medical school curriculum. This requires extensive preparation and discussion of didactic materials, opportunities to practice these skills in the pre-clinical years, extensive faculty development to ensure that feedback to the students is consistent and helpful, and ongoing efforts to incorporate cross-cultural care education into the clinical years.

The question we posed for this paper was whether a single cultural competence OSCE station could help to teach cross-cultural skills – is it worth doing? Previous descriptions of 'cultural OSCEs' (Altshuler & Kachur 2001; Rosen et al. 2004) have used the OSCE format to teach cross-cultural care skills exclusively, utilizing extended time set aside specifically for this task. Here, we asked whether adding a 'cultural OSCE' station into the existing second-year OSCE would offer students an opportunity to both assess and solidify cross-cultural skills that were taught during their first and second years. We were impressed by the wealth of learning that students described with this particular station. The experience of the OSCE itself, despite the limitations, can serve as a valuable method for identifying gaps in student knowledge and skills in cross-cultural care and reinforcing the breadth of issues to consider in caring for patients of diverse backgrounds. What is especially unique about the OSCE experience that helps further the goals of cross-cultural care education is its symbolic significance as an exam. The sense of being tested helped students appreciate the weight placed on this particular knowledge and skill set. Many students reflected on how this experience underscored the need for more practice in this area, translating knowledge into the 'real world' of clinical practice. The OSCE offers a structured opportunity to practice skills and receive feedback, and helps clarify these skills for those students who may still be unclear on what cultural competence involves. While the short eight-minute

interview is challenging, the students' feedback highlights that this station reminded students of the significance of sociocultural context in patient-centered clinical care and provided students with specific questions to incorporate into their medical interviewing.

Our study has several limitations. Since this was a small and self-selected sample of students, this cohort may have had more knowledge and better defined perspectives on cultural competence than less interested students. However, the sample was well balanced in terms of ethnicity, sex, and self-perceived performance, with a wide distribution of responses from those who performed well to others who felt they had failed, suggesting that we captured both positive and negative student reflections. The purpose of using qualitative methods was to elicit a range of student reflections that cannot be generalized to all student experiences, and should be interpreted as perspectives from key informants. As a qualitative study based on a small convenience sample, we were not able to look at significant differences among students by ethnicity, gender, or class. A future study with a larger, more generalizable sample, looking at the experiences of students of different backgrounds, would be of interest.

We have learned from these student reflections that a cultural competence OSCE station that focuses on eliciting patients' perspectives and exploring possible reasons for medication non-adherence can serve as a unique and valuable teaching tool. It can help solidify knowledge about the importance of social and cultural contexts on patient's illness experiences and medication adherence, and can highlight a set of cross-cultural skills in a structured context. To that end, the cultural competence OSCE station may be considered as one pedagogic method for incorporating cross-cultural care into medical school curricula.

Acknowledgements

The authors express their gratitude to the Harvard Medical School Culturally Competent Care Education Committee, in particular to Drs. Augustus White, Joseph Betancourt, Toni Peters, Edward Krupat, and Emily Rickards for their extensive input on the development of the OSCE station and feedback on this study. In addition, we wish to thank the faculty involved in developing the 2nd year OSCE experience, including Dr. William Taylor, Dr. David Hirsh, and Margaret Hinrichs. We also would like to acknowledge Rebbecca Wilson for her assistance in transcribing and coding the interviews. This project was supported by a grant from the Harvard Medical School, Culturally Competent Care Education Committee.

Notes on contributors

DR. ELIZABETH MILLER is a Med/Peds physician and medical anthropologist with research interests in cross-cultural care education, adolescent health, and community medicine. She is Assistant Professor in Pediatrics and Assistant Director of the Center for Reducing Health Disparities, UC Davis School of Medicine.

DR. ALEXANDER GREEN is Senior Scientist at Institute for Health Policy, core faculty at the Disparities Solutions Center at Massachusetts General Hospital, and Co-Chair of the Culturally Competent Care Education Committee, Harvard Medical School. His research focuses on cross-cultural education and approaches to eliminating racial/ethnic disparities in health care.

References

Adamo G. 2003. Simulated and standardized patients in OSCEs: achievements and challenges 1992–2003. Med Teach 25:262–270.

Alinier G. 2003. Nursing students' and lecturers' perspectives of objective structured clinical examination incorporating simulation. Nurse Educ Today 23:419–426.

Altshuler L, Kachur E. 2001. A culture OSCE: teaching residents to bridge different worlds. Acad Med 76:514.

Beach MC, Price EG, Gary TL, Robinson KA, Gozu A, Palacio A, Smarth C, Jenckes MW, Feuerstein C, Bass EB, Powe NR, Cooper LA. 2005. Cultural competence: a systematic review of health care provider educational interventions. Med Care 43:356–373.

Betancourt JR. 2004. Cultural competence–marginal or mainstream movement? New England J Med 351:953–955.

Betancourt JR, Green AR, Carrillo JE, Ananeh-Firempong O. 2003. Defining cultural competence: a practical framework for addressing racial/ethnic disparities in health and health care. Pub Health Rep 118:293–302.

Brazeau C, Boyd L, Crosson J. 2002. Changing an existing OSCE to a teaching tool: the making of a teaching OSCE. Acad Med 77:932.

Carrillo JE, Green AR, Betancourt JR. 1999. Cross-cultural primary care: a patient-based approach. Annals of Internal Med 30:829–34.

Champaneria MC, Axtell S. 2004. Cultural competence training in US medical schools. J Am Med Assoc 291:2142.

Deveugele M, Derese A, De Maesschalck S, Willems S, Van Diel M, De Maeseneer J. 2005. Teaching communication skills to medical students a challenge in the curriculum? Patient Education and Counseling 58:265–270.

Dogra N, Wass V. 2006. Can we assess students' awareness of cultural diversity? A qualitative study of stakeholders' views. Med Educ 40:682–690.

Flores G, Gee D, Kastner B. 2000. The teaching of cultural issues in U.S. and Canadian medical schools. Acad Med 75:451–455.

Green AR, Betancourt JR, Carrillo JE. 2002. Integrating social factors into cross-cultural medical education. Acad Med 77:193–197.

Green AR, Miller E, Krupat E, Hirsh D, Taylor W, White A, Wilson R, Betancourt JR. (In Press). Designing a Cultural Competence OSCE Experience: lessons Learned from Interviews with Medical Students. Ethnicity and Disease.

Hamann C, Volkan K, Fishman MB, Silvestri RC, Simon SR, Fletcher SW. 2002. How well do second-year students learn physical diagnosis? Observational study of an Objective Structured Clinical Examination (OSCE). BMC Med Educ 2:1.

Harris HW, Felder D, Clark MO. 2004. A psychiatric residency curriculum on the care of African American patients. Acad Psychiatry 28:226–239.

Ishikawa H, Hashimoto H, Kinoshita M, Fujimori S, Shimizu T, Yano E. 2006. Evaluating medical students' non-verbal communication during the objective structured clinical examination. Med Educ 40:1180–1187.

Kripalani S, Bussey-Jones J, Katz M.G, Genao I. 2006. A Prescription for Cultural Competence in Medical Education. J Gen Internal Med 21:1116–20.

Liaison Committee On Medical Education: accreditation Standards. (2004). Available at: http://www.lcme.org/standard.htm. (Accessed Jan 2, 2007).

Li JT. 1996. Reassessing the OSCE. Acad Med 71:1137, author reply, p. 1138.

Matthews J, Kadish W, Barrett SV, Mazor K, Field D, Jonassen J. 2002. The impact of a brief interclerkship about substance abuse on medical students' skills. Acad Med 77:419–426.

Mavis BE, Henry RC, Ogle KS, Hoppe RB. 1996. The emperor's new clothes: the OSCE reassessed. Acad Med 71:447–453.

Nunez AE. 2000. Transforming cultural competence into cross-cultural efficacy in women's health education. Acad Med 75:1071–1080.

Nuovo J, Bertakis KD, Azari R. 2006. Assessing resident's knowledge and communication skills using four different evaluation tools. Med Educ 40:630–663.

Parish SJ, Ramaswamy M, Stein MR, Kachur EK, Arnsten JH. 2006. Teaching about substance abuse with Objective Structured Clinical Exams. J Gen Internal Med 21:453–459.

Patton M. 1990. *Qualitative Evaluation and Research Methods* (Newbury Park, CA, Sage Publications).

Rider EA, Hinrichs MM, Lown BA. 2006. A model for communication skills assessment across the undergraduate curriculum. Med Teach 28:127–134.

Robins LS, White CB, Alexander GL, Gruppen LD, Grum CM. 2001. Assessing medical students' awareness of and sensitivity to diverse health beliefs using a standardized patient station. Acad Med 76:76–780.

Rosen J, Spatz E, Gaaserud A, Abramovitch H, Weinreb B, Wenger NS, Margolis CZ. 2004. A new approach to developing cross-cultural communication skills. Med Teach 26:126–132.

Rushforth HE. 2006. Objective stuctured clinical examination (OSCE): review of the literature and implications for nursing education. Nurse Educ Today Oct. 26, 2006, e pub.

Ryan G, Bernard H. 2000. Data management and analysis methods, in: N. Denzin & Y. Lincoln (Eds), *Handbook of Qualitative Research*, pp. 769–802 (Thousand Oaks, CA, Sage Publications).

Simon SR, Volkan K, Hamann C, Duffey C, Fletcher SW. 2002. The relationship between second-year medical students' OSCE scores and USMLE Step 1 scores. Med Teach 24:535–539.

Sloan PA, Plymale MA, Johnson M, Vanderveer B, LaFountain P, Sloan DA. 2001. Cancer pain management skills among medical students: the development of a Cancer Pain Objective Structured Clinical Examination. J Pain Symp Manage 21:298–306.

Stein MR, Parish SJ, Arnsten JH. 2005. The OSCE as a formative evaluation tool for substance abuse teaching. Med Educ 39:529–530.

Stimmel B. 1996. Reassessing the OSCE. Acad Med 71:1137–1138.

Tervalon M, Murray-Garcia J. 1998. Cultural humility versus cultural competence: a critical distinction in defining physician training outcomes in multicultural education. J Health Care for the Poor and Underserved 9:117–125.

Tervo RC, Dimitrievich E, Trujillo AL, Whittle K, Redinius P, Wellman L. 1997. The Objective Structured Clinical Examination (OSCE) in the clinical clerkship: an overview. South Dakota J Med 50:153–156.

Whitcomb ME. 2002. Assisting medical educators to foster cultural competence. Acad Med 77:191–192.

Yedidia MJ, Gillespie C, Kachur E, Schwartz MD, Ockene J, Chepaitis AE, Snyder CW, Lazare A, Lipkin M. 2003. Effect of communications training on medical student performance. J Am Med Assoc 290:1210–1212.

Yudkowsky R, Downing SM, Ommert D. 2006. Prior experiences associated with residents' scores on a communication and interpersonal skill OSCE. Patient Educ Counse 62:368–373.

Appendix 1

Description of the OSCE station focusing on cross-cultural interviewing skills*

Case summary (this paragraph is not *provided to students).* Mrs. Bonilla is a 56 year-old Latina woman from the Dominican Republic with poorly controlled hypertension. She had been on various medications but her blood pressure had remained high. She has not been adherent to her antihypertensive medication for a number of reasons—the most important is that she has a different understanding (or explanatory model) of hypertension. She believes that hypertension is something that she can feel and that comes on with stress and anxiety. Accordingly, she takes the hypertension medication only when she feels she needs it. Another issue is her use of a medicinal herb tea from the local botanica, which she sometimes uses in place of the medication. She also has difficulty reading medication bottles and instructions, due to a low literacy level particularly in English, but also in Spanish.

Student instructions. Setting: You are a second year student working in a primary care clinic with your preceptor.

Patient: A 58 year-old woman who comes into her primary care clinic for a routine follow-up.

You learn from a quick review of the record that the patient's blood pressure has been difficult to control despite multiple medications. She's had a full medical work-up for secondary causes of hypertension and all tests were completely negative. Today she presents without major complaints, and has a blood pressure of 154/96 on right and 150/94 on left with a heart rate of/84.

You will:

- Take a concise but relevant history of all the details important to understanding why the patient's blood pressure is not controlled (8 minutes)
- Prepare oral presentation (2 minutes)
- Perform an oral presentation based on your findings from the history (4 minutes). The presentation is as if you were informing your preceptor of a patient you just saw in the clinic
- Answer a written question on the case (1 minute)
- Receive feedback (5 minutes)

*Note: SPs complete communication skills evaluation sheet and faculty observers complete a checklist of students' performance. Students receive a report on their performance but this does not count toward their grade.

Appendix 2

Interview schedule for study participants

Thanks very much for taking the time to give us some feedback on one of the OSCE stations. We are specifically interested in the case of Sra. Bonilla and her difficult to control hypertension.

(1) Please tell me what you thought was the essence of the case? or some of the take home points for this case?
(2) More specifically, what would you say you personally 'took away' from this case? Perhaps, some aspect of the case that might change the way you practice? That you found useful? What were the greatest challenges to do well on this particular case? What did you need to understand in order to do well on this case?
(3) What do you think you did well in the station?
(4) What were some of the difficulties you had with the station?
(5) What did you think about the standardized patients?
    How realistic was the standardized patient?
    How useful was the SP feedback?
    How did the fact that the patient was bilingual affect your approach to the case?
(6) What about the faculty feedback?
    How useful was the faculty feedback?
    Can you recall any specifics of this feedback?
    How was it delivered?
(7) What did you think about the actual case?
    Did the case assess skills and knowledge you have learned prior to the OSCE?
    If so, specifically, what? Which skills? What kinds of knowledge?
    Do you remember what your impressions were of this patient and what was going on with her, prior to getting the feedback from the SP and faculty?
(8) Any additional thoughts? Suggestions for improving the case and/or the station itself?