CLINICAL & BASIC RESEARCH

Medical Students Learning Communication Skills in a Second Language
Empathy and expectations

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تعلم مهارات التواصل بلغه ثانية عند طلاب الطب
التعاطف والتوقعات

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الملخص: الهدف: التدريب على مهارات التواصل للفحص الطبي في الأغلب يكون باللغة الإنجليزية في المؤسسات التعليمية الطبية على مستوى العالم. في هذه الدراسة سعينا لمعرفة إذا كان طلاب الطب الناطقين باللغة العربية يواجهون صعوبة في المكونات المختلفة للتدريب على مهارات التواصل باللغة الإنجليزية. الطريقة: تم تسجيل شريط فيديو لطلاب السنة الثالثة (n=45) كل على حدة أثناء فحصهم لممثلين دور المرضى. قام كل طالب بتقييم أدائه في استمارة تقييم تتضمن 13 بنداً (كل بند يحوي 5 مقاييس). كما تم التقييم من قبل الأستاذ وطلاب آخرين في المجموعة. النتائج: من واقع 13 بنداً من بنود تدريب مهارات التواصل كان أقل البنود تقييما من قبل الأساتذة هو مقدرة الطالب على إبداء التعاطف مع المرضى, السؤال عن أحاسيسهم, سلاسة تداول المعلومات و استنباط توقعات المرضى (P <0.001). الخلاصة: من الصعوبة تطوير مهارة التعبير عن التعاطف واستنباط توقعات المرضى لدى طلاب الطب الذين يدرسون بلغة ثانية.

مفتاح الكلمات: التواصل، التاريخ الطبي، لغة، طلاب الطب، عناية المريض المركزية، الإمارات العربية المتحدة.

ABSTRACt: *Objectives:* Communications skills (CS) training for medical interviewing is increasingly being conducted in English at medical schools worldwide. In this study, we sought to identify whether Arabic-speaking medical students experienced difficulty with the different components of the CS training that were conducted in English. *Methods:* Individual third-year preclinical medical students (N = 45) were videotaped while interviewing simulated patients. Each student assessed his/her performance on a 13-item (5-point scale) assessment form, which was also completed by the tutor and other students in the group. *Results:* Of the 13 components of their CS training, tutors awarded the lowest marks for students' abilities to express empathy, ask about patients' feelings, use transition statements, ask about functional impact, and elicit patients' expectations (P <0.001). *Conclusion:* The expression of empathy and the ability to elicit patients' feelings and expectations are difficult to develop in medical students learning CS in a second language.

Keywords: Communication; Medical history taking; Language; Medical students; Patient-centered care; United Arab Emirates.

Advances in Knowledge
- *Preclinical medical students learning communication skills in a second language experience difficulty in demonstrating empathy, and eliciting feelings and expectations from simulated patients.*

Application to Patient Care
- *When supervising medical students in clinical rotations, instructors should be aware of the difficulty that Arab medical students trained in English-medium programmes may have with expressing empathy, and in eliciting patients' feelings and expectations in a cross-cultural clinical context.*

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ACCUMULATING EVIDENCE SUGGESTS that a patient-centred approach to communication in the clinical consultation improves health outcomes, reduces costs, and leads to higher patient satisfaction.[1–3] Key skills in patient-centred communication skills (CS) include eliciting and prioritising patients' problems, exploring their ideas, concerns and expectations, and recognising and responding to emotions.[4–6] Based on his work in rural clinics in Nepal, Moore has, however, raised the concern that patient-centred communication may be contextually bound to culture and language.[7]

Although research into patient-physician communication in the Arab context is limited, social sciences literature does explore cross-cultural communication in such a setting.[8,9] Observational research suggests that Arab patients have certain culture-specific customs, such as restrictions based on gender, or an individual's status in the family and community. Additionally, patterns of acculturation differ from those in Western societies.[10] Within the mental health context, specific guidelines have been suggested including "an emphasis on short-term, directive treatment; communication patterns that are passive and informal; patients' understanding of external *loci* of control and their use of ethno-specific idioms of distress; and, where appropriate, the integration of modern and traditional healing systems".[10] As some of the observations of Arab patients' preferences depart from the patient-centred communication approach, the development of a workable model for teaching patient-physician communication in Arab cultures must take these into account. Arab physicians' attitudes, however, seem to vary across the spectrum from paternalistic to patient-centred. When presented with scenarios of diagnosis disclosure and decision-making, physicians and patients favoured a family-oriented over a patient-centred approach.[11] A tension thus exists between some traditions of Arabic culture and the individual-oriented, patient-centred model currently in vogue in Western settings.

While the literature reveals only a few studies relating to the difficulty of learning CS in the context of a language difference, it is even more scant for the Arab region.[12–14] To the best of our knowledge, no studies have been published relating to aspects of patient-centred communication that may be culturally incongruous or challenging during CS training. Therefore, this study set out to evaluate the ability of third-year Arabic-speaking medical students to develop patient-centred CS in an English-medium programme.

Methods

The Faculty of Medicine and Health Sciences (FMHS) at the United Arab Emirates University (UAEU) was established in 1984 and has an annual intake of 60–80 students, with females comprising at least 60% of each cohort. Training is gender-segregated. To prepare medical students for postgraduate studies abroad, the language of instruction is English in all courses, including CS training. The model of CS training is based on generally accepted theoretical frameworks for undergraduate medical education.[15–18] Extensive use is made of simulated patients (SPs).

Ethical approval for the study was obtained from the UAEU Research Affairs Ethics Committee. Students were verbally informed in class about the study and participation was voluntary, except in the case of tutor assessments of student performance, which was part of the course requirements.

This observational cohort study comprised 45 third-year medical students in the 2009–10 academic year, with females accounting for 78% (n = 35) of the learners. All students were Emirati nationals and by implication were native Arabic-speakers. As English is the university's medium of instruction, CS training was conducted in English. English language proficiency amongst students varied, often reflecting their secondary schooling experience (i.e. English-medium teaching if they had studied at private schools or Arabic at public schools).

The course of CS for medical history-taking involved six weeks of a year-long clinical skills module in the third year of a six-year undergraduate degree. After the first four weeks, students received two additional weeks of CS instruction later in the year. The weekly student contact time was about 6 hours (two hours on each of 3 days) per week. Each week was designed to provide a consistent learning structure across the three sessions, addressing different components of patient-centred medical interviewing: orientation on Day 1, a video-recording session of individual students with an SP without a faculty tutor on Day 2, and finally, on Day 3, a video review of the Day 2 session with a

Table 1: Details of the weekly communication skills training sessions

Day	Description	Outcomes
1	Interactive large-group sessions (males and females separate) with live demonstration by faculty tutors with an SP or a review of a professionally recorded video	Overview of communication skills
2	Video-recording of individual interviews with trained SPs with different scenarios each week	Verbal feedback from SP
3	Review of individual student videos in small groups facilitated by a faculty tutor	Verbal feedback: student reflection, peers and tutor
		13-item assessment form completed by student, peers, and tutor

SP = simulated patient.

faculty tutor in a small group [Table 1]. Specific skills were introduced sequentially over the first 4 weeks of the course, progressing from basic CS such as introduction and eliciting an agenda to more advanced skills, including exploring feelings and expressing empathy. In weeks 5 and 6, the complete set of CS were revised and assessed in role-plays.

Prior to the start of the CS training sessions, faculty members and SPs jointly attended a workshop to orient them to the objectives of the CS course as well as to provide guidance on providing students with feedback. In addition, SPs attended workshops in which they were coached in role-playing and providing feedback. Written patient scenarios were distributed to SPs a week in advance but were not revealed to students. On the scheduled CS training days, SPs arrived an hour earlier to discuss the week's patient scenarios with the course organisers.

Assessment was achieved based on the framework described above using a global rating as well as a CS assessment instrument comprising 13 items. The assessment form included keywords from a lexicon for medical communication.[19] Each item was scored on a 5-point Likert scale, from 5 (excellent) to 1 (not done). All items were based on positive characteristics; thus, higher scores represented a better performance. On Day 3 of each week videos from Day 2 were reviewed, and students self-assessed their performance using this assessment form. They also received a rating from the tutor and their peers in the group.

As empathy forms part of a patient-centred approach, students were asked, prior to the commencement of the CS sessions, to complete an abbreviated version of Davis' Interpersonal Reactivity Index (IRI), a self-reported empathy scale.[20] This abbreviated inventory, comprising 14-item empathic concern and perspective-taking scales only, has been validated among medical students elsewhere as a reliable measure of self-reported empathy.[21] Items have a limited-response on a 5-point scale ranging from 'Describes me very well' to 'Does not describe me well'.

We studied one complete cohort of students. *Post-hoc* analysis revealed that a mean difference of one point on the rating scale of 1 to 5 with the observed standard deviations of less than 1.0 would have been detected with a power of 96% with samples as small as 50 assessments. We analysed 207 tutor assessments.

The data collected, which included tutor, self, and peer ratings for each student on the 13 CS components and the global score, were analysed using the Statistical Package for the Social Sciences, Version 18 (IBM, SPSS Inc., Chicago, IL, USA 2009). Standard descriptive statistics were used. As tutor ratings were not normally distributed (Kolmogorov-Smirnov test, $P < 0.05$), non-parametric tests were used instead, including the Mann-Whitney U-test and the Spearman's rank-correlation coefficient. Two-sided statistical testing was applied using a cut-off of 0.05 for significance. Sub-group analyses included a comparison between male and female students with a one-way analysis of variance (ANOVA) test.

Results

Figure 1, which provides the average tutor rating of four sessions by male and female students for the different components of a patient-centred CS approach, including the global score, suggests that students were generally adept at introducing themselves but were less competent with more patient-centred aspects such as asking about functional impact and patients' expectations. Although male and female students generally scored similarly, some significant differences were measured. Specifically, tutors considered male
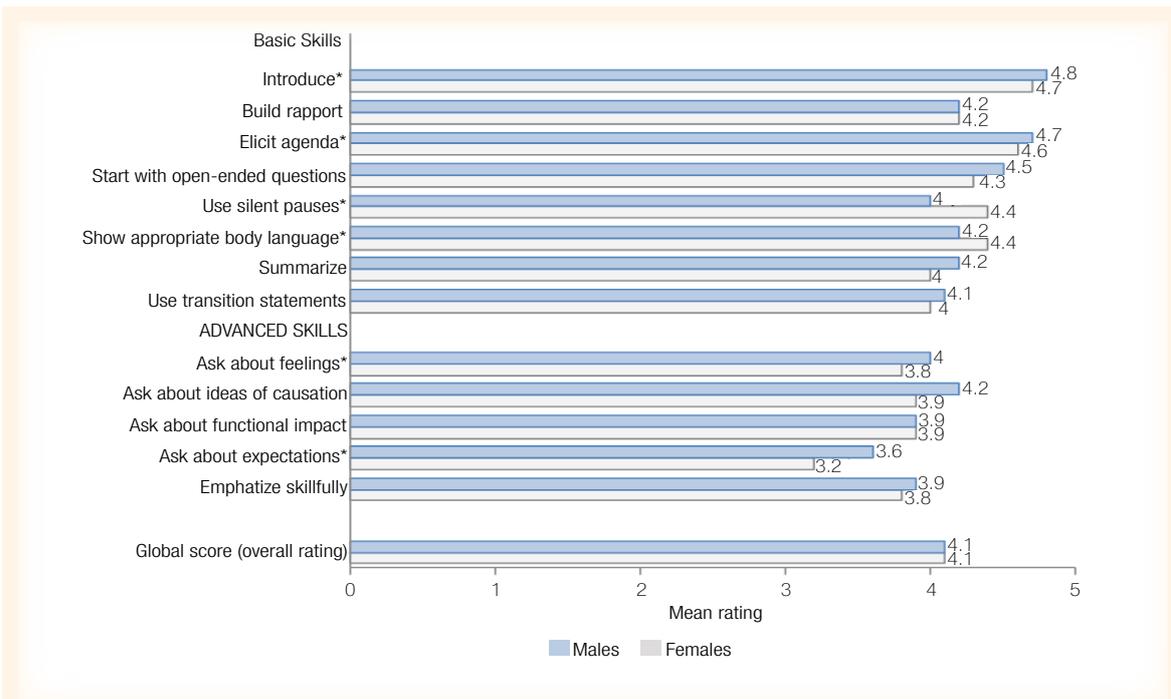
Figure 1: Mean faculty ratings of components of communication skills for male and female medical students

n = 44 students (34 females, 10 males, data missing for 1 female student). These data reflect the first four weeks of training only.

* = statistically significant difference between male and female students.

students more skilled at introducing themselves, and eliciting the patient's agenda, feelings, and expectations, while females were rated more highly at using silent pauses and showing appropriate body language ($P <0 .05$).

A comparison between self-assessment and peer and tutor ratings over the first 4 weeks of the training, indicated that except for week 2 when there was congruence between the three ratings, peer and self-evaluations were generally higher than the tutor rating [Figure 2]. The exception, however, was in week 1, when students generally underestimated their performances while their peers overestimated their abilities. Only tutors were asked to score weeks 5 and 6, which took place several weeks after the initial training.
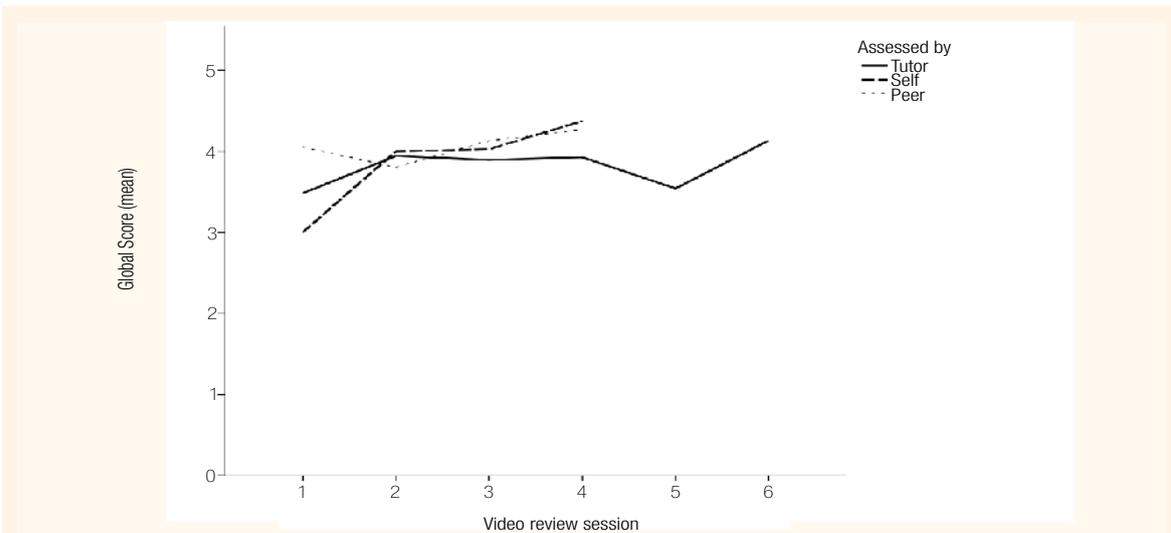

Figure 2: Tutor, Peer and Self-ratings of overall interviewing skills over the communication skills training period.
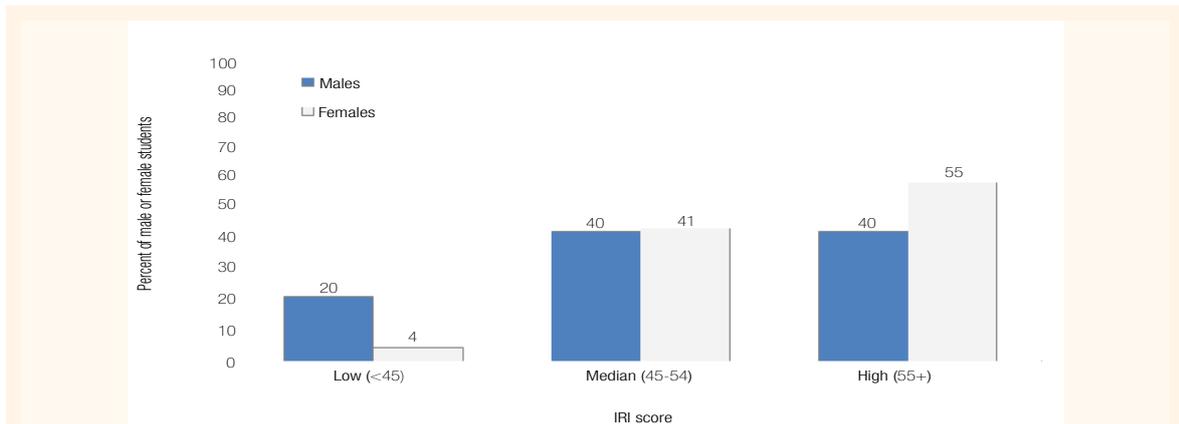
Figure 3: Self-reported empathy among male and female medical students using the abbreviated Interpersonnal Reactivity Index questionnaire.

n = 40 students (5 students did not return the questionnaire). The possible score range was 14–70 (higher scores indicate greater self-reported empathy).

Forty students (89%) completed the IRI administered at the start of the course. Although the mean self-reported empathy score was slightly higher for female students (54.9 ± 5.6) compared with their male colleagues (51.8 ± 7.1), this difference was not statistically significant (P = 0.172) [Figure 3]. Only 40% of males as compared with 60% of females considered themselves to be empathetic. Their self-reported empathy did not, however, correlate with the tutor's rating of the students' ability to empathise with SPs (R = -0.099; data for 34 students only).

Discussion

This study explored the learning of patient-centred CS in a second language. Based on tutor ratings, students appeared to be able to introduce themselves adequately, elicit an agenda, and begin with open-ended questions, with the more complex skills of expressing empathy and eliciting patients' feelings, which are key elements of a patient-centred clinical encounter, being less developed, or difficult to acquire, and/or requiring more practice. More practice in these skills is advocated. The need for practice is indicated by the increase in tutor ratings for weeks 5 and 6 after a plateau in weeks 2–4. During weeks 5 and 6, students were practising all 13 components. Although Zick *et al.* found that American medical students generally did not report any difficulty mastering the skills of eliciting a patient's agenda or building rapport, or mastering even more complex skills such as expressing concern

and empathy, it must be remembered that those students were learning CS in their native language, and in a Western context which subscribes to a patient-centred approach.[22] Language and culture are intimately linked and, in the present study, both may be influencing the acquisition of more complex patient-centred CS skills. Additionally, our course did not include student reflections on empathy and compassion in medical interviewing, which may have hampered the acquisition of these skills.

Gender differences were found in terms of tutor ratings, with males generally scoring higher on many of the CS components. This contradicts the results of the empathy inventory in which more males reported low-moderate empathy than did females. This discordance between self-reported empathy and observed skills has been reported elsewhere and appears to be a generalisable finding.[23] CS educators should therefore not assume that students with more empathetic tendencies will necessarily have the skills to express their concerns to patients. Gender differences are possibly due to culture-dependent characteristics in the way female and male students interact with SPs, and may be independent of second language effects.

The context of the present study raises two issues that have not been addressed to any great extent in the CS literature: learning to communicate in a language different from one's mother tongue, and the validity or appropriateness of a patient-centred model in a Middle Eastern/Arabic setting. Not surprisingly, just as the lack of colloquial English language fluency among medical students

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from non-English speaking backgrounds was a barrier to learning CS in Australia, teaching native Arabic-speaking medical students to communicate with patients in English poses challenges such as student anxiety and the need for remedial instruction.[12–14,24,25] Degen and Absalom have described barriers to teaching and learning across Chinese and Australian universities that are in some respects parallel our findings of Arab students being taught by international teachers.[26]

Our finding that students appeared reluctant to ask about patients' expectations may reflect the cultural context. The fact that SPs were generally middle-aged Western women and unknown to students may have inhibited the exploration of emotions. It may also be that as preclinical students, their difficulty in addressing emotional issues might reflect a lack of understanding of the relationship between psychosocial issues and medical conditions.[27] Within the Arab culture, the value attached to empathy in the doctor-patient relationship certainly warrants further investigation. Standard English expressions of empathy are not commonplace in everyday conversation in Arab society, unlike utterances of hope and prayers, which may not translate easily into English.[29] Traditional norms such as saying *inshallah*, meaning "God be willing", indicate the strong need to instill hope in patients while implicitly conveying uncertainty about, and yet acceptance of, the outcome. Others have argued that expressions of compassion have to be adapted to cultural differences.[28] Lastly, cross-cultural health care may require the rethinking of existing models of collaborative, participatory, patient-physician communication.[29] Future studies in this area should explore the benefit of making simulations in CS training more context-specific.

This study was limited by the small cohort size and potential bias of the observers, who were mostly Western expatriates. Among the seven tutors, only three were native Arabic-speakers. We did not assess tutors' abilities to recognise advanced CS in a standardised manner. As we were limited to Arab medical students from the UAE, generalisation to other Arab sub-cultures may not be valid. English language proficiency can affect medical interviewing and may explain some of our findings. Further research should compare the performance of students when they interview in Arabic to their CS

in English, while adjusting for language proficiency. Although the IRI has been validated, concerns have been raised about the reliability and validity of self-reported empathy.[30] The use of this questionnaire in English to assess empathy in Arab medical students may have further reduced its validity. Despite these limitations, to the best of our knowledge this is the first empirical study using video-recording and structured assessment of CS amongst medical students learning in a second language.

Conclusion

The results of this study suggest that medical students learning CS in an English-medium programme may encounter difficulty with complex communications skills, especially in expressing empathy and eliciting patients' expectations and feelings. While this may reflect uncertainty in terms of learning CS in a foreign language within the Middle Eastern context, this observation may also be influenced by cultural factors. CS tutors and clinicians supervising medical students may regard these findings as useful when observing Arab students who are interviewing patients in English.

References

1. Stewart M, Brown JB, Donner A, McWhinney IR, Oates J, Weston WW, et al. The impact of patient-centered care on outcomes. J Fam Pract 2000; 49:796–804.

2. Beck RS, Daughtridge R, Sloane PD. Physician-patient communication in the primary care office: a systematic review. J Am Board Fam Pract. 2002; 15:25–38.

3. Takemura YC, Atsumi R, Tsuda T. Which medical interview behaviors are associated with patient satisfaction? Fam Med 2008; 40:253–8.

4. de Haes H, Bensing J. Endpoints in medical

communication research, proposing a framework of functions and outcomes. Patient Educ Couns 2009; 74:287–94.

5. Arora NK, Street Jr RL, Epstein RM, Butow PN. Facilitating patient-centered cancer communication: A road map. Patient Educ Couns 2009; 77:319–21.

6. McCormack LA, Treiman K, Rupert D, Williams-Piehota P, Nadler E, Arora NK, et al. Measuring patient-centered communication in cancer care: A literature review and the development of a systematic approach. Soc Sci Med 2011; 72:1085–95.

7. Moore M. What does patient-centred communication mean in Nepal? Med Educ 2008; 42:18–26.

8. Dwairy MA. Counseling and psychotherapy with Arabs and Muslims: A culturally sensitive approach. New York: Teachers College Press; 2006.

9. Nasir LS, Abdul-Haq AK. Caring for Arab Patients: A Biopsychosocial Approach. Milton Keynes: Radcliffe Publishing; 2008.

10. Al-Krenawi A, Graham JR. Culturally sensitive social work practice with Arab clients in mental health settings. Health Soc Work 2000; 25:9-22.

11. Mobeireek AF, Al-Kassimi F, Al-Zahrani K, Al-Shimemeri A, al-Damegh S, Al-Amoudi O, et al. Information disclosure and decision-making: the Middle East versus the Far East and the West. J Med Ethics 2008; 34:225–9.

12. Hays RB, Pearse P, Cooper CW, Sanderson L. Language background and communication skills of medical students. Ethn Health 1996;1:383–8.

13. Mirza DM, Hashim MJ. Communication skills training in English alone can leave Arab medical students unconfident with patient communication in their native language. Educ Health (Abingdon) 2010; 23:450.

14. Ryan CA, Walshe N, Gaffney R, Shanks A, Burgoyne L, Wiskin CM. Using standardized patients to assess communication skills in medical and nursing students. BMC Med Educ 2010;10:24.

15. Makoul G, Schofield T. Communication teaching and assessment in medical education: An international consensus statement. Netherlands Institute of Primary Health Care. Patient Educ Couns 1999; 37:191–5.

16. Association of American Medical Colleges. Contemporary Issues in Medicine: Communication in Medicine - Medical School Objectives Project. 1999. From: https://members.aamc.org/eweb/upload/Contemporary%20Issues%20In%20Med%20Commun%20in%20Medicine%20Report%20III%20.pdf Accessed: May 2012.

17. Makoul G. Essential elements of communication in medical encounters: the Kalamazoo consensus statement. Acad Med 2001; 76:390–3.

18. von Fragstein M, Silverman J, Cushing A, Quilligan S, Salisbury H, Wiskin C. UK consensus statement on the content of communication curricula in undergraduate medical education. Med Educ 2008; 42:1100–7.

19. Arnold RW, Losh DP, Mauksch LB, Maresca TM, Storck MG, Wenrich MD, et al. Lexicon creation to promote faculty development in medical communication. Patient Educ Couns 2008; 74:179–83.

20. Davis MH. Measuring individual differences in empathy: Evidence for a multidimensional approach. J Personality Soc Psych 1983; 44:113–26.

21. Hojat M, Mangione S, Kane GC, Gonnella JS. Relationships between scores of the Jefferson Scale of Physician Empathy (JSPE) and the Interpersonal Reactivity Index (IRI). Med Teach 2005; 27:625–8.

22. Zick A, Granieri M, Makoul G. First-year medical students' assessment of their own communication skills: A video-based, open-ended approach. Patient Educ Couns 2007; 68:161–6.

23. Berg K, Majdan JF, Berg D, Veloski J, Hojat M. A comparison of medical students' self-reported empathy with simulated patients' assessments of the students' empathy. Med Teach 2011; 33:388–91.

24. Chur-Hansen A, Vernon-Roberts J, Clark S. Language background, English language proficiency and medical communication skills of medical students. Med Educ 1997; 31:259–63.

25. Chur-Hansen A, Barrett RJ. Teaching colloquial Australian English to medical students from non-English speaking backgrounds. Med Educ 1996; 30:412–7.

26. Degen T, Absalom D, Australia C. Teaching across cultures: Considerations for Western EFL teachers in China. Hong Kong J Applied Linguistics 1998; 3:117–32.

27. Lumma-Sellenthin A. Talking with patients and peers: Medical students' difficulties with learning communication skills. Med Teach 2009; 31:528–34.

28. Kim S, Flaskerud JH. Cultivating compassion across cultures. Issues in mental health nursing 2007; 28:931.

29. Hamilton J. The collaborative model of doctor-patient consultation--is it always culturally appropriate? What do doctors and patients need to know to make it work in intercultural contexts? Med Teach 2009 ; 31:163–5.

30. Pedersen R. Empirical research on empathy in medicine--A critical review. Patient Educ Couns 2009; 76:307–22.

31. Hofstede G. Cultural differences in teaching and learning. Int J Intercultural Relations 1986; 10:301–20.