

Perceptions of Saudi medical students on the qualities of effective teachers

A cross-sectional study

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ABSTRACT

الأهداف: التعرف على سمات المعلم الطبي المؤثر التي تهتم الطلاب غالباً.

الطريقة: أجري مسح كمي في كلية الطب، جامعة القصيم، بريدة، المملكة العربية السعودية خلال لفترة من أبريل حتى مايو 2012م باستخدام استبيان معد على جميع الطلبة وذلك لأخذ آرائهم عن صفات وسمات المعلم الجيد. تم قياس كل بند باستخدام مقياس ليكرت الخماسي. تم إدخال البيانات وتحليلها باستخدام برنامج إحصائي، نسخة 17.

النتائج: أجاب 356 طالب من جميع السنوات. كانت أكثر الصفات أهمية من وجهة نظر الطلاب هي «محترم للطلاب»، «متقن للمادة العلمية»، «معد للمادة العلمية»، «متفهم للطلبة»، «مهارات تواصل جيدة». ومن ناحية أخرى، «لديه روح الدعابة»، «يشارك التجارب الشخصية»، و«التضحية بالذات»، و«يعطي درجات جيدة لجميع الطلاب»، و«هندامه مرتب» كانت أقل الصفات أهمية لديهم. أن الصفات التي لها علاقة بالأداء كانت مهم للطلبة بالمقارنة مع الصفات الشخصية.

خاتمة: يجب على أساتذة الطب والإداريين التركيز على تطوير الصفات الأكثر أهمية للطلبة. قد تعرف الدراسات المستقبلية أكثر الصفات أهمية بشكل صريح.

Objectives: To identify the attributes of an effective medical teacher that students value the most.

Methods: A quantitative survey was performed in the College of Medicine, Qassim University, Buraidah, Kingdom of Saudi Arabia, between April and May 2012, using a pretested self-administered questionnaire distributed to all students. It captured their opinions on the qualities and attributes of good teachers. Each item was measured on a 5-point Likert scale. Data were entered and analyzed using the Statistical Package for Social Sciences Version 17.

Results: Three hundred and fifty-six students from all years responded. The most important attributes from the students' perspectives were "respectful to students", "expert on the subject", "organizes good lectures", "understands/relates to students", and "good communication skills". On the other hand, "good sense of humor", "explains and shares personal experiences", "self-sacrificing", "gives good marks to all students", and "dresses up appropriately" were least valued by students. Attributes related to performance were valued more by students compared to personality attributes.

Conclusion: Medical teachers and administrators should focus on improving the attributes identified most important to the students. Future studies could define the important attributes more explicitly.

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Medical education has seen some major shifts over the past few decades. Integrated teaching, problem-based learning (PBL), community-based learning, team based learning (TBL), core curricula with electives and a more systematic curriculum planning are currently being advocated and practiced. Introduction of PBL, innovations in assessment methods and bilateral feedback coupled with the use of information technology (IT) have revolutionized the concepts of medical education and have necessitated special training for teachers and subsequent monitoring

of their performance.¹ It is now well recognized that the medical education should be more student centered, however, teachers still have an important role in the overall educational process. In addition to their mastery of the particular subject or discipline, they are expected to be good role models, facilitators, mentors and most importantly excellent communicators. A teacher is like an expert in the emergency room, someone who constantly reacts to emergent events, despite having a plan of action. Generally, teaching is a very complex activity influenced by a myriad of factors. In a nutshell, a good teacher is the one who helps students learn effectively. Thus, the objective of education should be to hone students' quest for learning, which should be maximized by inspiring and motivating them.²⁻⁴ Research shows that the 2 important factors that students and professionals highly value are subject expertise and speaking style.⁵ A combination of the 2 ensures effective imparting of the appropriate knowledge to students, which is further supported by the evidence that 'interest in teaching', followed by 'knowledge' and 'clinical competency' were the most important attributes recognized by the students.⁶ Role modeling is the primary method by which good clinical teachers try to teach humanistic aspects of medical care.⁷ Conversely, asking questions in an intimidating manner, snubbing students, being judgmental, not recognizing extra effort, after-hour unavailability and not setting time limits for teaching activities are considered impediments to effective learning.⁸ This amply highlights the desire of students to have a relationship of mutual respect with teachers. A variety of guidelines have been developed to identify attributes and qualities of a good undergraduate medical teacher. However, many of them are not student-centered.⁹⁻¹³ Such interventions are not likely to give the expected dividends. Against this background, our study aimed to explore students' perceptions of qualities of good medical teachers, which could be used to develop a set of student centered criteria for incentives such as 'the Best Medical Teacher of the Year nomination that is both socio-culturally suitable and effective, in particular at Qassim University, College of Medicine (QUCOM), Buraidah, Saudi Arabia and generally in the Gulf region.

Methods. During April-May 2012 a quantitative survey was performed in QUCOM, which has adopted problem-based and student-centered medical

curriculum featuring the hybrid PBL approach that is both vertically and horizontally integrated and community oriented, and utilizes the spiral approach. Its 6-year course combines basic and clinical sciences. The first 3 years are devoted to an integrated basic medical sciences program; the next 2 years are for clinical rotations and the sixth year for internship. The program is a mixture of student- and teacher- centered activities. The current annual intake of students is approximately 120.

This study was conducted using a self-administered questionnaire which students received with a covering letter explaining the project. Anonymity was maintained throughout the study. The questionnaire had 2 sections. The first section included only 2 questions about gender and class levels. The second section contained detailed questions seeking the students' opinions about qualities and attributes of good teachers. There were 43 items, which were derived from the previously conducted studies designed to identify the attributes of good medical teachers and the international guidelines on the same.^{3,13}

Each item was measured on a 5-point Likert scale with following response options: strongly agree, agree, not sure, disagree, and strongly disagree.

All items were verified and subjected to content validation by 3 experts in medical education. They were given copies of the questionnaire, purpose, and objectives of the study to evaluate the questionnaire on an individual basis. Comparisons were made between these evaluations and the questionnaire was modified based on these evaluations. The questionnaire was pretested on a small sample of students and modifications were made accordingly.

A typical test item in this scale was a statement. Respondents were asked to indicate their degree of agreement with the statement on a 5-point scale.

The study proposal was scrutinized and approved by the Medical Research Committee of QUCOM. Raw data were treated with strict confidentiality, and used only for research purposes.

Data analysis. All questionnaires were coded and entered into an electronic database. We collected data on a total of 43 attributes related to students' perception of quality of a good medical teacher. Many studies categorized those attributes in a variety of ways;¹⁴ in this study, we simply grouped them under 2 broad categories: 'performance' and 'personality'. Twenty-five attributes belonged to performance and the remaining 18 attributes belonged to personality.

In the first step, individual frequencies (proportion who either 'strongly agreed' or 'agreed' for any given

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item) of all items belonging to performance and personality categories were calculated separately. In each category, item frequencies were sorted in the descending order (from the highest to the lowest). Top 5 frequencies from each category were selected and graphed. Finally, each of the top 5 items of performance and personality were compared between male and female students and between junior (year 1-3 in the medical program) and senior students (year 4-5).

In the next step, a global score on 'performance' was calculated for each participant by taking the average of all item-wise responses (n=25). In the same way, a global score on 'personality' was calculated by taking the average of all item-wise responses (n=18). Therefore, these 2 variables summarize the responses of all 43 items for each participant. Since, the nature of these 2 summary variables was continuous (can take any value between 0 and 1), t-test was appropriate to compare the difference between them. However, a paired t-test was chosen, since the responses of performance and personality items were expected to be correlated at the individual level. The rating of performance and personality items were expected to be correlated at the individual level, thus, paired t-test was used to compare between the global performance and personality frequency. Finally, global performance and personality were compared between male and female and between junior and senior students.

All tests were 2 sided with an alpha of 0.05 and analysis was carried out in SPSS version 17.

Results. Out of a total of 467 students enrolled at QUCOM, 356 students participated in the study with an overall response rate of 76%. Of the participating students, 60% were male and the remaining 40% were female. Fifty-six percent belonged to the junior classes (year 1-3) and the rest (44%) belonged to the senior classes (year 4-5).

Table 1 lists the proportion of students who either 'strongly agreed' or 'agreed' to each item on the performance and personality scales. Overall, the proportion that endorsed the attributes was high for all items in the performance (range: 65-91%) and personality (range: 65-93%). Among the performance items, the least endorsed ones were telling jokes and sharing personal experiences. Among the personality items, the least endorsed ones were self-sacrificing, sense of humor, and leniency in giving marks in the exam.

Figures 1A & 1B show the top 5 items in performance and personality. The top 5 items in performance were expert on subject, organizes good lectures, understands/relates to students, desire to promote student's learning

and understands role of teacher, while the top 5 items in the personality are: respectful to students, helpful, good communication skills, honest, and punctual. Of the top 5 performances and top 5 personality attributes, none varied either by gender or by class.

Table 1 - Itemized list of attributes on performance and personality attributes along with the percentage of students who endorsed each item (responded either 'strongly agreed' or 'agreed').

List of attributes	Agreed (%)
<i>Performance (items = 25)</i>	
Expert on the subject /knowledgeable	91.3
Organizes good lectures / use of audiovisual aids e.g. power point	89.6
Understands / relates to students	89.0
Desires to promote student's learning	88.7
Understands role of teacher	87.9
Good command on clinical skills / teaches the practical useful points	87.0
Good planner and organizer of the course/ curriculum	86.7
Helps in facilitation of students' learning	86.7
Teaching at the student level	86.5
Interact with students	86.5
Maintain his decorum as a teacher	85.9
Motivates students	85.5
Good guidance provider	85.4
Offers good mentoring	85.2
Makes students feel comfortable	85.0
Develops good learning resource materials for students including study guides (internet based or printed)	85.0
Available for consultation / advice	84.7
Good examiner / makes/ask good questions relevant to the students' learning needs in exam	84.1
Good role model	83.8
Good skills as PBL facilitator	80.9
Sensitive to student's problems/needs	79.9
Ask for feedback from students / try to improve according to their needs	79.0
Monitors students' progress /interested	75.8
Tell jokes / funny stories during lectures / session to amuse students to maintain their interest	72.3
Explains and shares personal experiences	64.7
<i>Personality (items = 18)</i>	
Respectful to students	93.2
Helpful	92.0
Good communication skills	91.3
Honest	87.8
Punctual	86.7
Accessible	86.2
Tolerant / patient	86.1
Friendly	83.9
Good listener	83.7
Enthusiastic	81.5
Emotionally controlled / doesn't get angry easily	81.4
Non judgmental	78.8
Open minded	76.5
Not strict / Shows leniency	75.8
Dresses appropriately	70.0
Self-sacrificing	69.8
Good sense of humor	65.8
Gives good marks to all students	64.6
PBL - problem-based learning	

Overall, the students put more emphasis on performance than on personality (Figure 2A, significant p-value). Although male students put more emphasis on performance and on personality compared to female students they were not statistically significant (Figure 2B). In the same way, performance and personality did not vary between the juniors and the seniors (Figure 2C)

Discussion. A good teacher has been described as the one who consciously wants to excel in teaching and earnestly strives to realize his/her wishes. He/she possesses good communication skills, is an expert on the subject, is easily accessible and relates well with the students while helping them, identifying their learning needs and being respectful to them.^{1,4} Many studies meant to identify the qualities and attributes of a good medical teacher have found some common factors, although, there are some disparities that can be explained on the basis of socio-cultural contexts and undergraduate or graduate levels of students. Our results are in line with previous studies that identified desirable attributes and qualities of a good medical teacher from the standpoint of students. “Communication skills”, for example, were always regarded as one of the highly rated attributes of a good teacher and so were the teacher’s expertise in his/

her subject and the quality to be a “role model”.^{5,6} Being helpful to students, easily accessible, being respectful and understanding/relating well to students were also highly valued by students in different cultures.^{6,8,15-17} Curiously enough our respondents identified many attributes as highly desirable that had not been regarded so high in studies carried out in other socio-cultural contexts. Similarly, some attributes were not well regarded though they were rated high in other studies. These include “sharing of personal experiences”, “having good sense of humor”, and “dressing up appropriately”, “self-sacrificing” and surprisingly, “giving good marks”. Previous studies have shown that the students focus mostly on what teachers are: such as their personality attributes, and not what they do in the classroom;

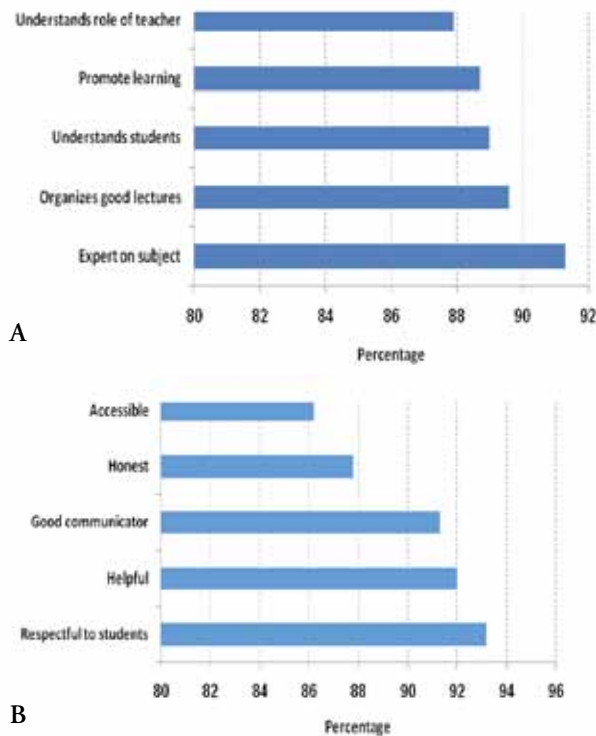


Figure 1 - Frequency of top 5 attributes in A) performance and B) personality categories. Percentage who either agreed or strongly agreed with any given attribute.

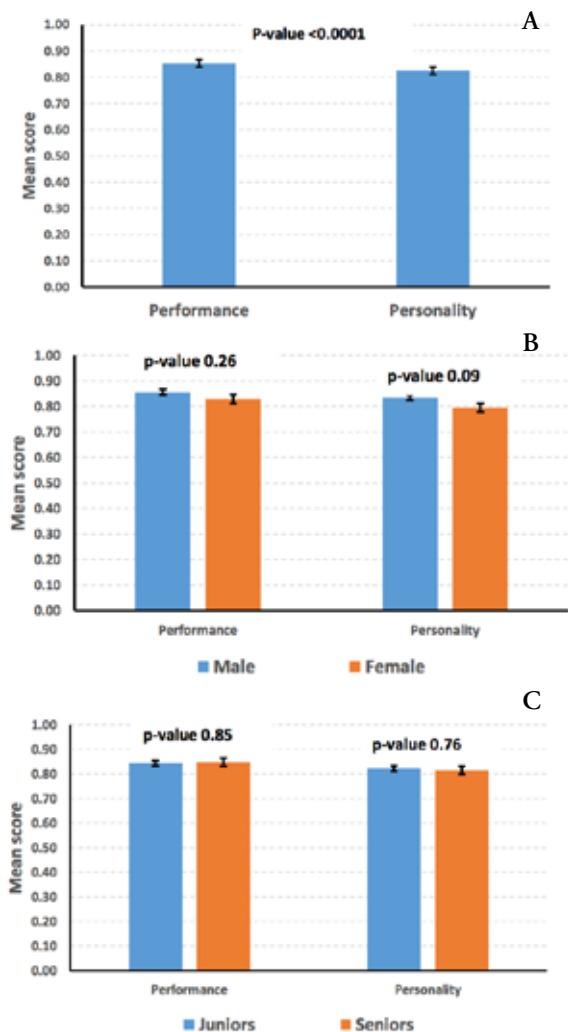


Figure 2 - Comparison of performance and personality attributes, in the A) whole sample, B) by gender, and C) by class.

however, in our study their focus was more on performance-related attributes. This raises some interesting questions; aren't actions an expression of personality traits? Can we separate the 2? Why did students not see the teacher in totality? Although a simple hypothetical answer could be that no matter what the personality of teachers, they are required and expected to act in a certain standardized way, which is also influenced by the socio-cultural context in a student-centered learning environment. However, further research is needed to explore these issues.¹⁸ Overall, the gender difference was not significant as found in other studies.¹⁹⁻²¹ Students' class level did not show any specificity of impact on their perception of qualities of a good teacher, which other studies also confirm.²¹ Placing medical students at the center of the learning process, medical educators should groom medical students to become active recipients of information that they "need to know" as health professionals.³ Although this study was carried out in a student-centered school, students still felt that good lecturers were good teachers as well. Our study also resonates with this aspect though indirectly. Content expertise delivered through good communication skills epitomizes good didactical practices. Improved understanding of the content on part of students is an expected outcome of good instructional input. A natural reaction of QUCOM students was placing these attributes high on their list. To maximize the learning experience medical teachers need to acquire the qualities and attributes that students need to see in their teachers. This can only be achieved by the faculty development activities that emphasize and focus on teacher's acquiring these attributes, especially communication skills, updated knowledge, and expertise in their own subject and specialty. These should be blended with the knowledge, skills and competencies based on what the students "should and need to know" as safe practicing physicians in the future, than simply imparting the knowledge teachers are expert in without considering students' needs. In addition, it is advisable to differentiate between the students' "needs" and "demands". A discerning professionalism is therefore required of teachers in order to strike a balance between what students 'need to know' and what they 'demand or want to know'. As both are important aspects, teachers have to be trained in establishing the equilibrium, which ensures student motivation alongside achieving appropriate learning outcomes. Frameworks such as 'Can MEDS',²² 'Tomorrow's Doctors',²³ and 'Saudi Meds'²⁴ provide a foundation for designing curricula, which in turn provide medical teachers with guidance on how to establish needs of students as future

physicians. Demands of students, of course, will vary from one situation to another. The important aspect is to find out what are these demands and uses them in teaching strategies.

The increasing complexity of governance mechanisms regulating medical profession have placed huge amount of emphasis on accountability and service standards. Physicians, both current and future, have professional obligations towards individual patients as well as the communities they serve. A medical teacher has the extremely important role of shaping and transforming students into safe practicing physicians and health workers who would excel in their profession whilst abiding by the regulatory mechanisms. Knowledge on 'attributes of a good teacher as perceived by students' allows medical teachers to peep into students' minds. Acquiring this ability would help teachers to devise educational strategies that improve the receptivity level of students, ultimately, ensuring the achievement of learning outcomes.

The principal limitation of this study is related to the nature of the questions. The students may have responded according to what they perceived was expected of them (namely, desirability bias). It is evident in the high percentage of students who either strongly agreed or agreed for any given attribute (for most items the agreement percent was in the eighties and nineties). Another limitation was the absence of items totally unrelated to performance and personality. Those unrelated items would have made possible to crosscheck whether the students responded to each item according to the value they really ascribed to it or just gave blanket response to all items. A final limitation is that we did not collect gender and the class information for those who did not participate (approximately 24%). We do not feel that our results are biased for 2 reasons: a 24% non-response rate is within the acceptable range for a survey. The responses for performance and personality related items were very similar between the gender and between the classes. Hence even if there were gender or class differences in non-response, it would not have made a difference in the overall findings

In conclusion, although students valued performance-related attributes more, some personality-related attributes are highly valued by them. It clearly indicates that students hold their honor very high. Teachers who are courteous and demonstrate this trait through their behavior and actions are deemed 'good'. Since we are living in the era of student centered education, the qualities and attributes that students need to see in an ideal medical teacher should be acquired by

all those involved in medical education. As a natural consequence, the faculty development programs, both pre- and in-service, will have to be tailored to meet these new realities. Going a step further, the performance monitoring and evaluation of medical teachers will have to be synchronized with the training programs as well. The future research should focus on defining the top attributes of performance and personality identified by the students. For example, one of the top performance attributes was 'understand the role of teacher'. It is important to know what students actually understand by that construct. Knowledge of that information would help teachers understand the areas where their roles are adequate and the areas where improvement is necessary. Conducting a qualitative research can elicit information in this regard.

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References

- Steinert Y. Staff development. In: Dent JA, Harden RM, editors. A practical guide for medical teachers. 2nd ed. Edinburgh: Churchill Livingstone; 2005.
- Duncan PW. One grip a little stronger. *Phys Ther* 2003; 83: 114-1122.
- Sutkin G, Wagner E, Harris I, and Schiffer R. What makes a good clinical teacher in medicine? A review of the literature. *Acad Med* 2008; 83: 452-466.
- Azer SA. The qualities of a good teacher: how can they be acquired and sustained? *J R Soc Med* 2005; 98: 67-69.
- Jahangiri L, Mucciolo TW. Characteristics of effective classroom teachers as identified by students and professionals: a qualitative study. *J Dent Educ* 2008; 72: 484-493.
- Jahan F, Sadaf S, Kalia S, Khan A, Hamza HB. Attributes of an effective clinical teacher: a survey on students' and teachers' perceptions. *J Coll Physicians Surg Pak* 2008; 18: 357-361.
- Weissmann PF, Branch WT, Gracey CF, Haidet P, Frankel RM. Role modeling humanistic behavior: learning bedside manner from the experts. *Acad Med* 2006; 81: 661-667.
- Oyeyemi AY, Oyeyemi AL, Rufai AA, Maduagwu SM, Aliyu HN. Physiotherapy students & perception of their teachers & clinical teaching attributes. *African Journal of Health Professions Education* 2012; 4: 4-9.
- Hobgood C, Sawning S, Bowen J, Savage K. Teaching culturally appropriate care: a review of educational models and methods. *Acad Emerg Med* 2006; 13: 1288-1295.
- Betancourt JR. Cultural competency and medical education: many names, many perspectives, one goal. *Acad Med* 2006; 81: 499-501.
- Gregg J, Saha S. Losing culture on the way to competency: the use and misuse of culture in medical education. *Acad Med* 2006; 81: 542-547.
- Berk RA. Survey of 12 Strategies to Measure Teaching Effectiveness. *International Journal of Teaching and Learning in Higher Education* 2005; 17: 48-62.
- Hasan T, Bani I, Ageely H, Fauzi M. An ideal medical teacher. *Education in Medicine Journal* 2011; 3: e54-e59.
- Onwuegbuzie AJ, Witcher AE, Collins KM, Filer JD, Wiedmaier CD, Moore CW. Students' perceptions of characteristics of effective college teachers: A validity study of a teaching evaluation form using a mixed-methods analysis. *American Educational Research Journal* 2007; 44: 113-160.
- Schaeffer G, Epting K, Zinn T, Buskist W. Student and faculty perceptions of effective teaching: a successful replication. *Teaching of Psychology* 2003; 30: 133.
- Scarboro A. Student perception of good teaching. *International Journal of New Trends in Arts, Sports & Science Education* 2012; 1: 49-66.
- Sutkin G. Characteristics of good Clinical Educators from Medical Students' Perspectives: A Qualitative inquiry using a Web-Based Survey System. *Int J Healthcare Information Systems and Informatics* 2008; 3: 69-86.
- Krauss S, Sears S. Teaching for the Millennial Generation: Student and Teacher Perceptions of Community Building and Individual Pedagogical Techniques. *The Journal of Effective Teaching* 2008; 8: 32-39.
- Thompson BM, Haidet P, Casanova R, Vivo RP, Gomez AG, Brown AF, et al. Medical Students' Perceptions of Their Teachers' and Their Own Cultural Competency: Implications for Education. *Journal of General Internal Medicine* 2010; 25: 91-94.
- Abraham R, Ramnarayan K, Vinod P, Torke S. Students' perceptions of learning environment in an Indian medical school. *BMC Med Educ* 2008; 8: 20.
- Pierre RB, Branday JM, Pottinger A, Wierenga A. Students' perception of the 'educational climate' at the Faculty of Medical Sciences, The University of the West Indies, Jamaica. *West Indian Med J* 2010; 59: 45-49.
- Frank JR, editor. The CanMEDS 2005 physician competency framework. Better standards. Better physicians. Better care. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2005.
- General Medical Council. Tomorrow's doctors. UK: General Medical Council. [Updated 2009; Accessed 2013 Apr 22]. Available from URL: http://www.gmc-uk.org/Tomorrow_s_Doctors_1011.pdf_48905759.pdf
- Zaini RG, Abdulrahman K, AL-Khotani AA, AL-Hayani AA, Al-Alwan IA, Jastaniah SD. Saudi Meds: A competence specification for Saudi medical graduates. *Medical Teacher* 2011; 33: 582-584.