INTRODUCTION

Most of the medical schools in Asia have traditional, teacher-centered and hospital-based training.¹

Using the graduates’ point of view in the evaluation of undergraduate medical programmes for improving the standard of medical education has been documented in several studies.²,³ In the United States, Graduate Exit Questionnaire (GEQ) is part of the routine educational process and medical graduates’ evaluation of the educational programme is utilized for quality assurance and curriculum revision. The satisfaction of medical students with their medical education in these surveys was noted to vary from 28.4% in Iran⁴ to 90.2% in USA.⁵

Among the concerns raised by students in a Graduate Exit Questionnaire (GEQ) survey were lack of integration and coordination in basic science courses, dissociation and lack of relevance of the curriculum.⁴ Medical students also have complained of being significantly more dissatisfied with their pre-clinical teaching than with their clinical teaching and training. A majority felt inadequately trained in dealing with specific issues relating to patient care and communication.⁶ In a study done at the University of Saskatchewan, Canada, a majority of senior undergraduate students indicated that they did not remember much from their first year courses and the pre-clinical teaching content was not relevant to later clinical work or studies, with the statistically significant effect of knowledge loss.⁷ Anger or anxiety also affects learning ability and the use of fear or anxiety provoking tactics in teaching practices in medical colleges was condemned by most students.⁸

The stark fact is that, despite enormous changes in the environment, only relatively minor changes and improvements have been made in the local medical, educational and training programs.⁹ In developed countries, a variety of new medical teaching strategies, including more emphasis on communications skills, ethics, and the history of medicine are being tested.⁹ Medical students want their pre-clinical years training to be more clinically oriented. They also want more hands-on training/practical field work to improve current medical teaching.¹⁰

There is dearth of literature on this subject in Pakistan. A survey of medical students in Karachi, however, showed that students supported problem-based learning

ABSTRACT

Objective: To obtain the views and recommendations of final year MBBS medical students of Lahore Medical and Dental College, Lahore about various aspects of the current medical education.

Study Design: Cross-sectional survey.

Place and Duration of Study: Lahore Medical and Dental College, Lahore in October and November 2007.

Methodology: Preformed close ended structured questionnaire regarding medical teaching and evaluation methods and recommendations was used to collect the data from students of final year MBBS (n=120) at Lahore Medical and Dental College. SPSS 15 program was used for analysis. Data was presented as frequency percentages.

Results: A majority of the students (79%) thought that multimedia was the most effective teaching tool, (54%) students viewed 45 minutes as ideal lecture duration. Measures suggested to improve the examination results were regular tests (54%), improved lecture content (32%) and regular tutorials (10%). MCQ's were the mode of examination questions preferred by 62% of students. Recommendations given by students for improving the current medical education were better teaching (26%) followed by increased motivation in students 54 (16%) and more hands-on training/practical field work (12%).

Conclusion: Medical students in this study preferred multimedia, lecture duration less than 45 minutes and MCQ's as their preferred mode of evaluation. Students recommended increased emphasis on better lectures, increasing learning motivation in students and more hands on training/practical field work to improve current medical teaching.

Key words: Medical students. Curriculum. Teachers. Lectures.

ORIGINAL ARTICLE

Medical Education: Views and Recommendations by Final Year MBBS Students of a Private Medical College in Lahore

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PBL) as an effective method of learning and were convinced that problem-based learning helped them in building up communication skills, interpersonal relationship and problem solving capacity. In another study done at Shifa Medical College, Islamabad, 67% of the students wanted a mix of both the lectures along with small group learning (problem based learning).

The objective of this study was to obtain the views of the medical students about their current medical education and their recommendations in improving the current medical education system.

METHODOLOGY

A cross-sectional survey was conducted on all the students of final year MBBS (n=120) at Lahore Medical and Dental College between October and November 2007. A preformed close ended structured questionnaire was used to obtain the views and recommendations of the respondents. The final questionnaire was developed after a review of pertinent literature and pre-testing on the students. The survey was voluntary and confidential. Any student who refused to participate in the study was excluded. Demographic characteristics of the study population (age, gender) were also noted. Data was later analyzed by Statistical Package for Social Sciences (SPSS) 15 program (SPSS Inc., Chicago, IL, USA). Results were presented as frequency percentages. Respondent's confidentiality was assured so students could answer the various questions without any bias.

RESULTS

Medical students in this survey consisted of 120 students of final year MBBS at Lahore Medical and Dental College. There were 56 (47%) male medical students and 64 (53%) female students in the study. When we asked students about what they thought of the current medical curriculum they gave us multiple responses. Out of a total of 124 multiple responses, the majority 53 (43%) were that the curriculum was very lengthy, 49 (39%) difficult, 14 (11%) found it easy, 7 (6%) thought the curriculum was not relevant and other 0.8 (1%). Majority of students 91 (76 %) in this study thought multimedia to be the most effective teaching aid, followed by blackboard 26 (22%) and only 3 students (2%) opted for transparencies.

As can be seen from Table I, most of the students 65 (54%) viewed 45 minutes as an ideal lecture duration. In this survey, 81 students (67%) felt that lecture attendance was important for better results in the examination, but when we asked them regarding reasons for non-attendance in lectures they gave us multiple responses. The most frequent responses quoted were long duration of lecture (n=41, 22%), self study being more effective 38 (21%), lecture is boring 36 (20%), teacher's lack of proper communication 35 (19%), lecture schedule tiring with no breaks 42 (19%) and lack of student interest and motivation 30 (16%). A majority of students 98 (82%) wanted a break after every lecture. We asked the students what in their opinion was the most important factor for better understanding and retention of a lecture. Among the multiple responses we received from the students, the most common responses were students interest and motivation 52 (20%), followed by easy language of communication 43 (17%), easy to understand material 39 (15%), short duration of lecture 38 (14%), dynamic personality of the teacher 43 (13%) and better audio visual support during lectures 24 (9%).

On inquiry about the most important factor for improving the final examination results the students gave us multiple responses and it can be seen from Table II that the majority of students 70 (54%) felt that regular tests helped them prepare better for the final examination, when we asked the students if revision classes also help them in their preparation for their final examination, a majority of students 92 (77%) thought that revision classes do help in preparing for the final examination. On inquiring about the most appropriate mode for the examination, we received multiple responses. Seventy six (62%) of responses were for MCQ’s as the preferred mode of examination questions, followed by 45 (37%) responses for SEQs and only 1 (0.8%) responses were for long essay questions. An overwhelming majority of the students, 104 (87%) thought that examiner bias does an impact the viva results. Finally, when we asked the students what they thought were the most important factors to be implemented in order to improve our medical education, they again gave us multiple responses as noted in the Table III. As can be seen from the table, among the multiple responses received to improve our medical education, the most common responses were for better teachers 88 (26%) and an increase in motivation in students for learning 54 (16%).

<table>
<thead>
<tr>
<th>Duration of lecture time</th>
<th>Number of respondents (n)</th>
<th>Percentages</th>
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<tbody>
<tr>
<td>30 minutes</td>
<td>65</td>
<td>54%</td>
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<tr>
<td>45 minutes</td>
<td>52</td>
<td>43%</td>
</tr>
<tr>
<td>1 hour</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responses</th>
<th>Numbers multiple responses</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular tests</td>
<td>70</td>
<td>54%</td>
</tr>
<tr>
<td>Better lectures</td>
<td>41</td>
<td>32%</td>
</tr>
<tr>
<td>Regular tutorials</td>
<td>13</td>
<td>10%</td>
</tr>
<tr>
<td>More practicals</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>1%</td>
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<tr>
<td>Total</td>
<td>128</td>
<td>100%</td>
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</tbody>
</table>
As the educational climate strongly affects students’ achievement, satisfaction and success, it is important to get regular feedback from students if we want to change and improve the quality of health care education in our country. Medical students bring fresh ideas, knowledge, and perspective which can be very important in improving the current medical education system. Although it is not mandatory to incorporate the opinions of the students in formulating the medical education curriculum, it is obvious that one of the most important sources of information in any evaluation of the education process is the learners’ opinions. In fact, the graduates are unique in their understanding about the quality of the medical education and their feedback is an invaluable source for improving current medical education.

With this background in mind, we decided to conduct this survey to obtain fourth year medical students’ opinion in our college about the current medical education. When we asked students about their views regarding the current medical curriculum they gave us multiple responses. Fifty three (43%) felt that the curriculum was very lengthy and 49 (39%) felt that it was difficult. Dolmans DH, et al. in his survey also found similar results and students in his study also complained that the medical curriculum was difficult and lengthy. In a recent study by Nandi, et al., they found that students of the newer problem-based learning curriculum found multimedia was the best teaching tool. Rees, A majority of students, 91 (76%) in this study thought multimedia was the best teaching tool. Rees, et al. in a survey of medical students found that students seemed to prefer experiential methods of learning such as using simulated patients. Fischer, et al. in their study found that most students preferred small-group discussions over traditional lectures (p < 0.001). In another similar survey by Costa, et al., interactive teaching styles were more popular than didactic lectures among undergraduate medical students. They also found that knowledge retention was better following an interactive teaching style as evidenced by the fact that students in the interactive discussion group rated that method of teaching higher than those in the lecture group (p=0.003). The students in the discussion group also performed better on their end-of-placement written test (p=0.025).

Most of the students, 81 (67%), in this survey, felt that lecture attendance was important for better results in an examination. Similar results were also seen by Dhalwal in his study in India and it was also noted that higher attendance was associated with better marks in medical examinations (p < 0.0001). This was, however, different from another study done by Hammen, et al. where they found a weak correlation between lecture attendance and course grades.

On inquiring as to the reasons why medical students miss lectures, multiple responses were given by students. The most common responses quoted were long duration of lectures 41 (22%), self study being more effective 38 (21%) and that the lectures are boring 36 (20%). Similar results were seen by Trevena in his survey who noted that students felt that self-directed learning in basic and clinical sciences was more effective than traditional lectures. In another study by Duggan et al., they found that the most important reason for students not attending classes was due to a lack of interest in the topics. In India in a similar survey on medical students by Dhalwal, illness, family commitment, teacher/topic, or lecture period spent in an extended clinical posting were cited as most important causes for missing lectures in 62.6% of instances.

In this study, a majority of the students 92 (77%) thought that revision classes help the students in preparing for the final medical examination. This is similar to a study done by Sawyer et al. in which medical students felt that supplemental lectures in a small-group format in addition to their regular lectures can significantly improve their performance in examinations. They noted in this particular study that statistically significant increases in mean test scores were achieved on most examinations by the class exposed to the supplemental lectures. Failure rates for at-risk students decreased by 46% during the year the supplemental lectures were offered. The authors concluded that supplemental instructions can significantly improve student performance and lecture retention, particularly among at-risk students.

When we asked students about the current examination evaluation system the majority of our students felt that MCQ’s was their preferred mode of assessment in the examination 76 (62%), followed by SEQs 45 (37%) and
long essay questions 1 (0.8%). This finding is similar to another study by Oyebola, et al., where students rated multiple choice questions (MCQ’s) as their preferred mode of assessment.25 This is, however, different from another study conducted by Abraham, et al. which revealed that medical students felt that a single assessment modality was not very useful, as they felt that a single assessment cannot fulfill all aspects of assessment of student knowledge effectively and they suggested a need for an evaluating system using multiple modes of assessment in examinations.26

In this study, we asked respondents what they considered to be the most important factors to be implemented in improving our medical education. We received multiple responses. The most common responses were availability of better quality teachers 88 (26%), followed by an increase in the motivation in students for learning 54 (16%), more hands on training/practical field work 41 (12%). Our students rated the availability of better teachers as the most important factor to improve our medical system 88 (26%). Similar findings were noted by Trevena in his study and it was noted that most of the students wanted a teacher who had the required content expertise, with good facilitation skills and an enthusiasm for teaching. Creating a supportive group climate was the tutor attribute most positively evaluated by students (OR=9.62, 95% CI 4.46-20.83). Perceived interest in teaching (OR=8.93, 95% CI 3.83-20.83) and the ability to give useful feedback (OR=8.40, 95% CI 4.07-17.54) were also highly rated by students as valuable qualities in their tutors.22 In studies by Bokken, et al. however, it was found that real patient interactions and simulated patient interactions were considered indispensable by medical students in addition to regular lectures.27 Martens, et al. noted in their study that medical students wanted enthusiastic teachers, an integration of skills training with basic science teaching, linking of skills training to clinical practice, the presence of clear goals and well structured sessions, good time management and consistency of teaching for improving the current medical system.28

**CONCLUSION**

Medical students in this study preferred multimedia, lecture durations less than 45 minutes and MCQ’s as their preferred mode of evaluation. A long duration of lecture and increased effectiveness of self study were cited as reasons for poor lecture attendance. Students recommended increased emphasis on better lectures, increasing learning motivation in students and more hands on training/practical field work to improve the current medical education. This is a preliminary study done in a private medical college limiting generalization of the results. However, it is an original baseline study for understanding students’ views and their recommendations about current medical education. It is a snap shot survey and does not represent the changing trends in medical education. The study should be repeated in both private and public medical institutions. Longitudinal Cohort studies of the same medical students and teachers will indicate the trends of changing views of the medical students regarding medical education. Focus groups of medical students and teachers could be used for further detailed qualitative analysis of this issue.

**REFERENCES**


