

## Feedback of final year medical students lectures by paediatrician at a Government Medical College of Karachi

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### Abstract

**Objective:** To assess the feedback of final year medical students on paediatric lectures delivered over a year.

**Methods:** The descriptive, cross-sectional study was conducted at Karachi Medical Dental College, Abbassi Shaheed Hospital, Karachi, and comprised final year medical students who were exposed to the scheduled lectures in paediatrics from April 2016 to May 2017. After the completion of the designated lectures, an evaluation of the lectures was done by the students who rated the lecture(s) on whether the lectures were clear, interesting, easy to take notes from, thought-provoking and relevant to the course. The evaluation was done anonymously on pre-designed evaluation forms which were collected by volunteer third year medical students. Data was analysed and expressed as frequencies and percentages.

**Results:** Of the 212 students, 112(52.8%) agreed strongly that the lectures were clear, 50(33%) found them interesting, 56(26.4%) said the lectures were easy to take notes from, for 58(27.3%) the lectures were thought-provoking, and 118(55.6%) found them relevant to the course.

**Conclusion:** Majority of the students agreed that the lecture was clear and relevant to the course, but the lectures were generally not found to be easy to take notes from.

**Keywords:** Feedback, Faculty, Lectures, Paediatrics, Students, Government. (JPMA 70: 872; 2020).

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### Introduction

Lectures are part of curriculum and are a common form of teaching and learning at most government medical colleges of Pakistan. The key to a good lecture is clarity of thought while at the same time the speaker should be able to generate an interest in the students. The process of lecturing and learning from lectures may be derived from the cognitive theory.<sup>1</sup>

Lectures are used universally in all teaching institutions worldwide in the field of medicine and allied subjects, as they are economical. At Karachi Medical and Dental college,<sup>2</sup> lectures are given to both the students on the clinical and basic sciences. There is speculation regarding the benefit of lectures, especially in terms of the stakeholders such as the students.<sup>3</sup> Some students in the top part of their university may not attend lectures and still do extremely well in their grades.<sup>4</sup>

Some teachers give lectures after a lot of hard work in preparing them, while some are given casually without thought or preparation in the use of the educational media being used. Whether or not students benefit by lectures or by alternative problem-based learning (PBL) scenarios<sup>5</sup> is something that remains to be seen. Some students indicate that lectures are more beneficial, while others find that 'med talk' where students give lectures monitored by faculty and senior medical students is more beneficial.<sup>6</sup>

Whether a lecture delivered was clear, interesting, easy to take notes from, thought-provoking and relevant to the course for the students is not always ascertained. The current study was planned to address the scarcity of data related to an important issue by assessing the feedback of final year medical students in response to paediatric lectures delivered over a year.

### Subjects and Methods

The descriptive, cross-sectional study was conducted at Karachi Medical Dental College (KMDC), Abbassi Shaheed Hospital (ASH), Karachi, and comprised final year medical

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students who were exposed to the scheduled lectures in paediatrics from April 2016 to May 2017.

KMDC is a government-run institution established 26 years ago and was chosen for the current study due to the convenience of the faculty concerned who was employed there. The medical college uses lectures to impart knowledge to medical students in addition to the clinical rotation of 4th and final year students in the wards of ASH, its affiliated facility. Initially there were only 50 students enrolled in the college, but by 2017, the number of admissions in the first year had increased to 250.<sup>2</sup>

Lectures are generally attended at the college by not more than 75% of the students and only occasionally does the attendance increase to 90-95%. Recently biometric system has been introduced in the college and its impact on class attendance is yet to be quantified. The number of students being given a lecture at any session is approximately 250 in all specialties. Many students do a proxy for other students and it is difficult to address this issue. On an average, attendance was around 60-90%. However, when on days when an evaluation by means of a written multiple choice question (MCQ) test was taken, which was about once in six months, there was at least 98% attendance. However, for the purpose of the study, the faculty concerned took a random attendance at the end of the class to confirm the number of students attending the lectures. Based on the available attendance, an evaluation was done using universal sampling of students by convenience sampling. After obtaining approval from the institutional ethics committee and verbal consent from the students, the subjects (i.e students of final year MBBS), rated the lectures on five parameters: whether the lectures were clear, interesting, easy to take notes from, thought-provoking and relevant to the course. All the students present at the time of the evaluation were included, while those absent or not willing to volunteer were excluded. The evaluation was done anonymously on a pre-designed questionnaire.<sup>8</sup> Prior to filling the form, the students were informed that they should not write their name on the form. They were also explained that the objective was to highlight the weakness of the lectures delivered by the faculty member concerned and to improve them eventually.

As for the lectures, they were in line with pre-assigned topics as part of the paediatric curriculum of the Pakistan Medical and Dental Council (PMDC)<sup>7</sup> for undergraduate medical education. This curriculum is applied to all the

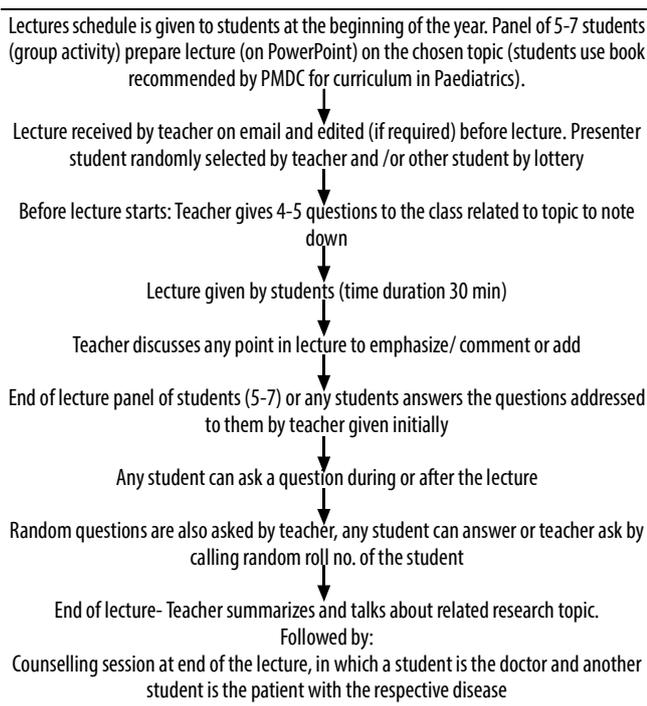
recognised medical colleges of Pakistan. The methodology of teaching the curriculum may be different in various institutions, but the content is essentially the same. In the context of the study, there were 16 lectures delivered one every week.

The methodology used for the lectures given was a combination of iterative classical (signs, symptoms, diagnosis, management and prognosis applied to the disease), problem-centred in which a problem was outlined and solution given at the end of the lecture. And an MCQ test was given at the end of the lecture to keep the students alert and active even though studies indicate that such approaches may not always be helpful.<sup>9</sup>

The lecture was an interactive session to keep the audience alert which, though difficult, was still possible, by way of active use of the marker and board and power point slides. In each lecture, the students were informed well before hand the topic, and 3-5 students prepared the same lecture as a group activity with salient features of the topic under the guidance of the teacher. The lecture prepared on power point slides was also sent to the teacher concerned on email and reviewed by the teacher. On the day of the lecture, the teacher concerned randomly selected a student from the designated panel of students who then gave the presentation on power point. After the topic was presented, the panel of students, other than the one making the presentation, answered related questions. The rest of the class was directly involved in interactive discussion on the topic with the teacher. The variation in student activity (Figure 1) was to keep the students focussed in order to improve their learning and to heighten their interest in the topic being taught.

In the beginning of the lecture, 3-4 questions were given by the teacher and a clinical case scenario related to the topic was also given. The answers to the questions could also be found in the lecture itself. After the lecture the students answered the questions. At any point in the lecture, students were free to ask questions. Also, the teacher asked random questions related to the topic during the change of slides, which any student was allowed to answer or the teacher selected a random roll number without mentioning any particular name, and, hence, the students did not feel threatened or targeted during the process.

Towards the end of the lecture, the teacher summarised the key points,. The questions given at the start of the lecture were answered by students regarding the topic



PMDC: Pakistan Medical and Dental Council.

**Figure-1:** Methodology of a paediatric lecture (total duration 50 min) given to medical students at a government medical college in Karachi.

and were then discussed. A few words about the recent research on the topic under discussion was also part of the session. Once the evaluation forms were completed by the students on a four-point scale from 'strongly agree' 'to strongly disagree', the teacher requested 3rd year medical students to collect them. These volunteers had not been taught by the teacher concerned and, being in the third year of their studies, they did not have any clinical rotation with the faculty. This was done to ensure there was no bias or perceived threat at any stage of the data collection process.

**Results**

Of the 250 students present in the evaluation session, 212(84.8%) volunteered and they represented the study sample. Of them, 112(52.8%) agreed strongly that the lectures were clear, 50(33%) found them interesting, 56(26.4%) said the lectures were easy to take notes from, for 58(27.3%) the lectures were

thought-provoking, and 118(55.6%) found them relevant to the course (Figure 2).

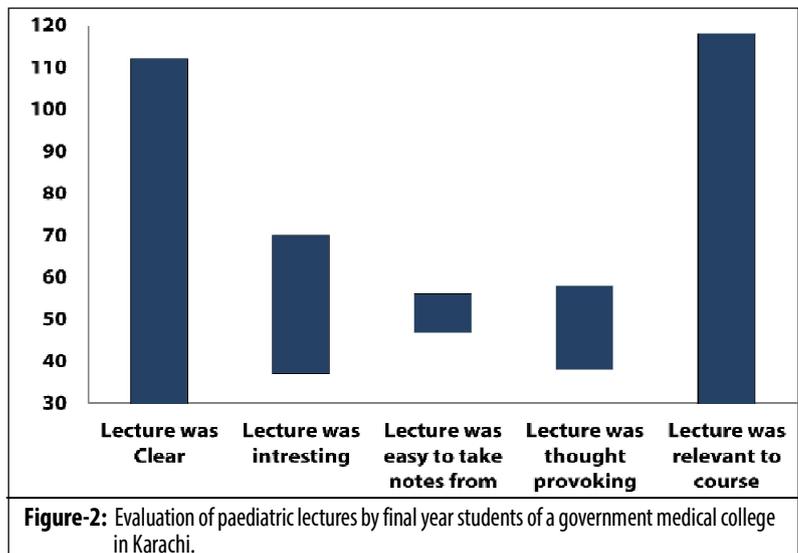
Those who strongly disagreed on the five parameters were 28(13.2), 37(17.4), 47(22.1), 38(17.9) and 24(11.3%) respectively (Table).

Evaluation was based on the students' opinions. However, achievement of the students was assessed by the teacher on the answers given by the students, at the end of the lecture by interactive approach, which, although satisfactory, has not been documented and included in this study.

**Discussion**

The feedback of final year medical students was done as the faculty concerned wanted to know if the lectures given were clear, interesting, easy to take notes from, thought-provoking and relevant to the course. These concerns were based on the cognitive theory of education.<sup>1,10</sup> The feedback was taken in the hope of improving the lectures.

More than 50% of the students agreed strongly that the lecture was clear and relevant to the course of paediatrics, 33% said it was interesting, 26.4% found lecture easy to



**Figure-2:** Evaluation of paediatric lectures by final year students of a government medical college in Karachi.

**Table:** Evaluation on a four-point scale (n=212).

	Lecture was Clear n (%)	Lecture was Interesting n (%)	Lecture was easy to take notes from n (%)	Lecture was thought provoking n (%)	Lecture was relevant to course n (%)
Strongly Agree	112 (52.8)	70 (33)	56 (26.4)	58 (27.3)	118 (55.6)
Agree	41 (19.3)	69 (32.5)	68 (32)	82 (38.6)	45 (21.2)
Disagree	31 (14.6)	36 (16.9)	41 (19.3)	34 (16)	25 (11.7)
Strongly Disagree	28 (13.2)	37 (17.4)	47 (22.1)	38 (17.9)	24 (11.3)

take notes from, 27% said lecture was thought-provoking and 55.6% found them relevant to the course.

It may be said that the topic of evaluation of lectures by way of feedback from medical students is a common one, but similar studies from government-run medical colleges are insufficient. Government medical colleges are comparatively less expensive; charging roughly less than one-tenth of the fees of a private medical college. Also, it is not easy to get admission into the respective medical colleges due to the high merit required with tough competition in the form of multiple entry exams.

Similarly, the faculty, though experienced, finds working in such colleges stressful due to disproportionate student-teacher ratio and limited resources, which has also been seen in other countries.<sup>11</sup> As such, it is extremely difficult to have a completely positive feedback from students under such dire circumstances compared to a well-established private medical college, with limited student-teacher ratio. A study from Bangladesh also suggested that the number of qualified teachers should be increased and the environment in terms of classroom, teaching facilities etc needed to be improved. However, the current study did not particularly look at the environment factor, which could further influence feedback of the students. Even then, it is pertinent to mention that there was no air conditioning (fans were working with a relatively cool atmosphere), some broken seats were present at the back of the hall. The hall was not always clean. The sound system, however, was generally functional.

Also, the subjects reviewed in the Bangladesh study<sup>11</sup> were of pharmacology, forensic medicine, microbiology, pathology and community medicine i.e. basic sciences, while the present study was related to paediatrics.

A study<sup>12</sup> evaluated students' lack of interest in attending lectures, and did so by means of a questionnaire. The lecture attendance was affected one way or the other in majority (70%) of students due to distance of residence from the college, strictness of teacher in marking attendance, interest in the subject and being part of the examination, personality of the teacher and the university requirement.

In our study, around 67% did not find the lecture interesting; more or less a similar finding.

The same study<sup>12</sup> reported that 30-66% attended the lecture due to teacher's command on subject, students' interaction in class, friendly attitude, good control on

class, punctuality, sense of humour and humane behaviour. These aspects were not considered in the present study.

Studies done indicate that students were more interested or preferred an interactive approach such as PBL, and the lectures were the least favourite method of teaching. The students also preferred the black board for teaching purposes.<sup>13</sup> These findings are somewhat similar to our study, considering the similarity of the large number of students in a single class, with some disturbance which can prevent students from grasping the subject material sufficiently. However, the current study did not compare teaching method.

The method used by the paediatrician was an approach comprising best choice questions, 'med talk'<sup>6</sup> interactive sessions and counselling sessions involving the students, followed by summary of the lecture. The students were allowed to ask questions any time they thought it was necessary. A similar combined approach has not been seen in published literature locally. PBL has been used widely both globally and locally. The paediatrician concerned, keeping in mind the teaching experience of considerable years, and with the hope to impart knowledge in an interesting and friendly manner, used this approach.

A local study suggested that PBL was more effective than lecture-based learning (LBL) in terms of academic performance of the students.<sup>14</sup> Case-based learning (CBL) in small group formats is being used at KMDC as part of the integrated modular medical curriculum similar to the case of Dow University of Health Sciences (DUHS).<sup>15</sup> However, as it has been started at KMDC only recently, therefore only the first three years of the five-year course of study are following this methodology with gradual absorption into all the undergraduate years of medical education. In the present study, faculty/paediatrician summarised the lecture; it would have been better from the students' point of view if it was by the students and not the faculty.

Interactive lecture used by the faculty was difficult, especially in such a large group. However, at least it kept the students interested; though only 33% found the lectures interesting. Other studies<sup>16</sup> have indicated that lectures may be made more interesting if teaching is interactive rather than didactic.

Additional use of the marker and board and power point

slides for the LBL curriculum helped the teacher to keep the students interested in the current study. Studies suggest that an integrated LBL curriculum may be as effective as a PBL curriculum as it can promote a student's deep learning approach.<sup>17,18</sup>

Board and marker for teaching medical students have been used more so in PBL and rightly so as it is difficult to have an interactive session for a group of 250 students in a hall. The lecturer has to be alert and vigilant so that students at the back or in middle of the hall are paying attention instead of chatting, and at the same time has to read their faces recognising whether they are understanding the subject, and seem interested in answering the questions addressed by the teacher at random. The teacher at the same time must not be unduly harsh or corner the student to make him or her uncomfortable or scared keeping in mind principles of adult learning.<sup>1</sup> The faculty conducting the present study kept all these points in mind, as the idea was to have a happy interested learner rather than a sad disoriented one.

In each lecture, students were informed well before hand of the topic. Since 3-5 students were involved in each lecture preparation, this created a group activity for sharing a single topic for presentation, resulting in a uniform interest, a collaboration and conversation with the peers, and the feedback was constructive. In a government setup, the introduction of small group discussions (SGDs)<sup>19</sup> would perhaps be more beneficial rather than lectures of 250 students and perhaps in future studies comparison between the small groups maybe done.

The current study has certain limitations. Curriculum outcome was not considered. Evaluation was done of lectures delivered by a single faculty member at a single government-run centre without doing comparison between government and private medical colleges. Having said that, a comparison between government and private medical colleges would not be justified due to serious imbalance in terms of available resources in the two entities. Another limitation of the study may be that it was conducted in the same institution where the faculty member was teaching, and the students knew which teacher's feedback form was being filled. A personal bias - both positive and negative - on the part of the students may have been present for the teacher and, hence, the feedback form may not have been filled rationally. Another factor affecting the results might have been the

fact that the faculty gave the lecture in English language, which is medium of instruction at KMDC, and not all the students were completely at ease with the language. Though every attempt was made to put in some humour and interest with anecdotes in Urdu, the local language, this may not have been enough for the students. Further multicentre studies are recommended with feedback on multiple teachers from all specialties and from both government and private institutions. Also, since the achievement of students was not evaluated by the current study, this aspect can also be part of future studies.

### Conclusion

Majority of the students strongly agreed that the lecture was clear and relevant to the course. Less than 50% of the students thought that the lecture was easy to take notes from or thought-provoking. Student feedback is essential for the teacher, the curriculum and eventually the system which may lead to focussed students and professional medical practitioners.

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**Conflict of interest:** None.

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