

BRIEF REPORT

How undergraduate medical students reflect on instructional practices and class attendance: a case study from the Shifa College of Medicine, Pakistan

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Abstract

The goal of this study was to assess student perceptions of a variety of instructional practices and attitudes toward class attendance. Data were obtained and analyzed by administering a questionnaire to students of the Shifa College of Medicine, Pakistan in 2011 and 2012. The subjects positively assessed most instructional practices, and in particular felt that teaching sessions conducted in small groups were more valuable than formal lectures in large groups. Students did not like having to give presentations, quizzes, panel discussions, and journal club. A positive correlation was found between the perceived importance of attendance and levels of academic motivation. Of the students surveyed, 11.8% were against mandatory attendance, saying that it reduced motivation and that attendance should be optional. In conclusion, the students had a positive perception of a range of instructional practices, and felt especially positively about practices that involve student activity in small groups. Programmatic improvement in instructional practices might increase class attendance.

Key Words: *Choice behavior; Curriculum, Learning; Medical students; Learning; Perception*

Various types of small-group and large-group sessions have been used for instruction at the Shifa College of Medicine, Islamabad, Pakistan, including case-based techniques such as case scenarios or multiple vignettes about a particular theme. Small group sessions include small group discussions, problem-based learning, objective structured clinical examinations, and practical labs. Large group sessions include interactive sessions, lectures, reviews, quizzes, panel discussions, student presentations, and journal club. Instructors encourage students to acquire evidence-based knowledge. It is desirable that students attend these sessions of their own free will and out of genuine interest. The goal of this study was to assess how students responded to these instructional practices and how stu-

dents perceived class attendance.

A questionnaire was administered in English to two consecutive groups of third-year medical students in the Shifa College of Medicine. The survey contained 21 closed questions, of which two were related to income group and gender, and three open-ended questions. This survey was conducted during the cardiovascular module of the third-year class in 2011 and 2012. Ninety-eight students in the 2011 group were surveyed three times each, at the beginning, midpoint, and end of the cardiovascular module, whereas 99 students in the 2012 group were surveyed at the beginning of the cardiovascular module. Quantitative data was analyzed with SPSS version 17 (SPSS Inc., Chicago, IL, USA). Homogeneity test for questions dealing with the importance of attendance were performed. Goodness of fit test for students' responses to questions dealing with teaching strategies and for students' perception of instructional practices were done. P-values less than 0.05 were considered to indicate statistical significance. Quali-

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tative data were analyzed in terms of the percentage of the students who gave the same response.

The total number of participants was 314, including three sets of responses from the 2011 group and one set of responses from the 2012 group. Of the participants, 55% were female and 45% were male. Their parents belonged to the middle class, with average monthly incomes of PIKR 100,000-500,000 (USD 1,000-5,000). A total of 188 students (69.1%) said that class attendance is important, whereas 32 students (11.8%) said that class attendance is not important since it reduces motivation and that attendance should be optional; uncertain, 52 students (19.1%) (Table 1). The students who were aware that attendance was important for learning believed that it lead to improved learning, improved performance, and higher grades; while, the students who thought that attendance was not important believes that it did not lead to improved learning, improved performance, and higher grades (Table 1). The attitudes of students towards attendance did not depend on instructor, topic, or type of delivery. Moreover, the students indicated that they are willing to attend class even if the teaching

material is available online (Table 2). A majority of students said that small group discussions are the most informative (63.7%, $P=0.000$) and that they found this method of teaching to be the most interesting (56.5%, $P=0.000$), as compared to reviews, lectures, and large-group interactive sessions. All knowledge delivery techniques were assessed positively, including large-group interactive sessions, problem-based learning, reviews, lectures, objective structured clinical examinations, skill-based lab sessions, outpatient department learning, and inpatient observation. Students had a negative opinion about student presentations in class and journal club. They indicated that they would like to utilize most of their time for self-directed study, study in the classroom, studying online, studying from textbooks, evidence-based study, lab work, operational theater observation, inpatient department learning, and outpatient department learning (Table 3).

Corresponding to the results of previous studies, students perceived active learning through case-based group activities more positively than traditional lectures [1]. Most students in this study also preferred case-based learning and stated that it

Table 1. Homogeneity test for questions dealing with the importance of attendance, according to the responses of students of the Shifa College of Medicine, Islamabad, Pakistan in 2011 and 2012

Q1. Is class attendance important?	Q3. Does attendance affect student performance?				Pearson chi-squared asymptotic significance (two-sided)
	Yes	Uncertain	No	Total	
Yes	157	14	17	188	0.000
Uncertain	25	9	18	52	
No	9	5	18	32	
Total	191	28	53	272	
Q4. Does attendance improve learning?					
Yes	142	21	24	187	0.000
Uncertain	24	9	19	52	
No	7	4	20	31	
Total	173	34	63	270	
Q16. Does daily attendance help students improve their grades?					
Yes	119	43	24	186	0.000
Uncertain	14	22	15	51	
No	5	9	18	32	
Total	138	74	57	269	

Table 2. Goodness of fit test for students' responses to questions dealing with teaching strategies from a questionnaire administered to students of the Shifa College of Medicine, Islamabad, Pakistan in 2011 and 2012

Question asked		Total responses (n)	Yes	Uncertain	No	P-value
Q13	Does your attendance depend on the instructor?	307	85	64	158	0.000
Q14	Does your attendance depend on the topic?	310	85	50	175	0.000
Q15	Does your attendance depend on the style of delivery?	303	95	71	137	0.000
Q17	Is the performance of instructors affected by the daily attendance of students or not?	302	127	92	83	0.005
Q18	Will you attend your sessions if your course material is made available online?	302	218	49	35	0.000

Table 3. Goodness of fit test for Students' perception of instructional practices in a survey administered to students of the Shifa College of Medicine, Islamabad, Pakistan in 2011 and 2012

	Question asked	Number of responses	Yes	Uncertain	No	P-value
Q8	Which method do you consider most informative?	300				0.000
	Small group discussion		191			
	Review		41			
	Lecture		18			
	Large group interactive session		47			
	None		3			
Q9	Which method(s) of teaching do you find interesting?	306				0.000
	Small group discussion		173			
	Review		40			
	Lecture		23			
	Large-group interactive sessions		52			
	None		18			
Q11	Which type of session(s) would you especially like to attend?					
	Large-group interactive sessions	277	179	64	34	0.000
	Small-group discussions	291	234	36	21	0.000
	Problem-based learning	282	187	48	47	0.000
	Review	280	206	49	25	0.000
	Lecture	271	187	54	3	0.000
	Objective structured clinical examination	275	200	53	22	0.000
	Practice	277	217	45	15	0.000
	Skill lab	288	250	27	11	0.000
	Outpatient department	294	258	30	6	0.000
	Inpatient department	286	247	29	10	0.000
	Student presentations	273	69	77	127	0.000
	Panel discussion	270	100	88	82	0.393
	Journal club	273	71	76	126	0.000
	Quiz sessions	277	109	78	90	0.071
Q12	You would like to utilize most of your time for:					
	Self-directed study	289	236	31	22	0.000
	Classroom study	261	126	78	57	0.000
	Internet study	267	141	77	49	0.000
	Textbook study	271	229	26	16	0.000
	Evidence-based study	270	157	83	30	0.000
	Lab work study	262	150	72	40	0.000
	Operational theater observation	272	224	37	11	0.000
	Inpatient department learning	275	239	31	5	0.000
	Outpatient department learning	283	244	30	9	0.000

enhances their learning. A high rate of regular attendance and consistently good test results indicated that the team-based learning concept was widely accepted among this group. Large-group interactive sessions were also perceived as very useful by the surveyed students, as shown in Table 3. Therefore, a correct mixture of instructional practices and tools is essential for the optimal achievement of learning objectives. The answers to the open-ended questions in our study expressed positive attitudes, and there were no inappropriate or particularly negative remarks. Students also suggested that appropriate leave policies should be developed for students who have genuine

problems in order to compensate for possible missed attendance. In conclusion, the students had a positive perception of a variety of instructional practices, and small-group activities received a particularly positive assessment. Programmatic improvement in the implementation of instructional practices might incentivize better attendance.

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CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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SUPPLEMENTARY MATERIAL

Audio recording of abstract.

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