

FACTORS INFLUENCING DENTAL STUDENTS ATTENDANCE IN LECTURES IN PRIVATE DENTAL COLLEGES OF KARACHI

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ABSTRACT

This descriptive study assessed the factors affecting the attendance levels of dental students in lectures in five private dental colleges of Karachi. The study was conducted from March to September 2018 after approval from the ethical review committee of Bahria University Medical & Dental College. Third and final year B.D.S students participated and were asked to fill out a survey perform at the end of their lectures. The perform consisted of student's demographic details and close-ended questions based on, attendance levels and their views on attending lectures. Total 384 students (155 third years and 229 final years) which comprised of 288 females and 96 males with a mean age of 22 years \pm 0.954 participated in this study. Based on attendance rates of last semester, 280 students had attendance level of 75 percent and higher while 104 students had attendance rates below 75 percent. The high attendance rates of students in lectures was due to the presence of a strict attendance policy by Pakistan Medical Dental Council as mentioned by 86.5% students from all private dental colleges. The results stated majority of students 74.5% were satisfied with the content and 62.2% presentation of lectures delivered at their institutions but 52.2% students preferred self-studying over attending lectures and 42.2 % students preferred studying from online course material. Students also believed lectures play a significant role in their examination results (64%) and in comprehending the courses (68.4%) offered in their undergraduate dental education.

The results of the study concluded that factors affecting student's attendance in lectures in private dental colleges of Karachi were timing of the lectures and preference for self-study. These need to be rectified in order to reinforce the learning process in dental undergraduates.

Key Words: Absenteeism, dental students, dental institutions, Lectures, Low Attendance, teachers.

INTRODUCTION

Undergraduate dental education focuses to produce a competent dental professional with sufficient knowledge of oral health and diseases, satisfactory dental skills and a compassionate attitude towards their patients.¹ Thorough understanding of the subject matter which is mostly achieved through attending lectures.² Even today regardless of adaptation to newer teaching methods and curriculum, lectures still remain as one of the most fundamental components of teaching in many universities worldwide.³ It is easy to deliver knowledge through lecture to a large number of students and logistically saving resources.⁴ It helps students in understanding the complexities of the subject matter.² In lectures, faculty members can place emphasis on essential topics and have the opportunity for bidirectional

discussion and immediate feedback with questions.⁴ With the revolution in the electronic equipment there are varieties of computer based soft wares to assist in making the lectures more presentable, interesting and interactive, thus making the traditional teaching effective.⁵

In the 21st century, as individuals are exposed to the growing advances in technology, many students believe that apart from lectures there are other alternatives of providing information to them, this not just affects the education system in many universities but also their discipline.^{3,6} In a recent project conducted by University of Pittsburgh School of Dental Medicine, it was concluded that 62% dental schools currently participated in video lecture recordings for students than attending lectures.¹ Studies conducted in various universities of South Africa, Saudi Arabia and United States revealed the great impact of student's absenteeism to their academic performance and the education system of the institutions.^{5,6} For instance a recent study conducted among 3rd year B.D.S students to assess the impact of lecture attendance on the academic performance, 43% of faculty members and 20.8% students believed that

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attendance and academic performances are directly correlated.⁷

With the increasing accessibility of web-based resources i.e. availability of lectures in the form of online slides, and videos, students nowadays feel a lack of need to regularly attend class lectures thus choosing self-directed learning over classroom attendance.^{8,9} A survey conducted at Baylor College of Dentistry where two-thirds of the students found college e-resources and e-lectures (59%), and clinical videos (54 %) effective for learning.¹⁰ This has led to a sudden rise in growing absenteeism in many dental institutions. A number of factors such as preference of self-study, lack of interest in subject, poor lecture content and teaching styles of the professors, lectures timings, transport issues, ill health, sleepiness and uncomfortable rapport with the teachers are other factors that have contributed to low class attendance.¹¹ In the past studies, it was observed that those students who had high class attendance achieve higher academic performance in coursework and examinations then poor attendance.^{7,9,11} In some studies it was noted that a strict attendance policy plays a tremendous impact in reducing absenteeism.^{5,12} In Pakistan, this is a first study which evaluate the frequency of factors that affect lectures attendance of Dental undergraduates at private dental colleges in Karachi.

Purpose of this study was to assess factors such as timing, content, presentation of lectures, self-study, transport, health of Dental students potentially affect their attendance in lectures in private dental colleges of Karachi.

METHODOLOGY

A Descriptive study was conducted among dental students from five private dental colleges of Karachi, (i.e Bahria University Medical and Dental College, Altamash Institute of Dental Medicine, Ziauddin University, Fatima Jinnah Dental College and Jinnah Medical and Dental College) from March to September 2018 with convenience sampling technique. The survey performa was designed with closed-ended questions with all questions based on tick box responses. A pilot study was done with 22 dental students to check content validity and these performas were not included in the study. Sample size was calculated from the software OpenEpi, Version 3. Statistical conditions were 5% margin of error, 95% confidence interval, and prevalence of 50% considered to draw a large sample size. The required sample size was found to be 384.

Students of third and final years who were willing to participate will be included in the study with attendance levels 50 percent or more in lectures. Survey Performa filled by students having less than 50 percent

attendance levels will be excluded in the study. Four hundred performs were distributed to the students of third and final years B.D.S. They were briefed about the study and a survey performa was circulated at the end of lectures at their institutions. Written permission was taken from the head of the institution before distribution of the survey performa. We discarded 16 forms that were not filled properly by students, total responded were 384. The first part of the questionnaire comprised of student's demographics details and attendance in the last semester, while the second part consisted of two portions, (a) questions related to various factors (timing, the content and quality of lectures delivered at their institution, transport, health & psychological problems)) affecting the attendance in classes, and (b) the student's views on why they prefer to attend lectures. The ethical approval was obtained by the ethical review board of Bahria University Medical and Dental College BUMDC, ERC reference no. 17/2018 dated 12-06-18.

The data was studied by using SPSS (IBM statistics) version 20. Student's demographics and attendance were recorded, frequencies and percentages was computed for variables.

RESULTS

A total of 384 students, 155 were third year and 245 were final year. There were a total of 288 females and 96 males with a mean age of 22 years \pm 0.954 as shown in table 1. Out of 384 students, 280 had attendance rates of 75 percent and higher while 104 had attendance rates below 75 percent in the last semester. The results showed that most of the students(n=286) were satisfied by the content of the lectures, and the

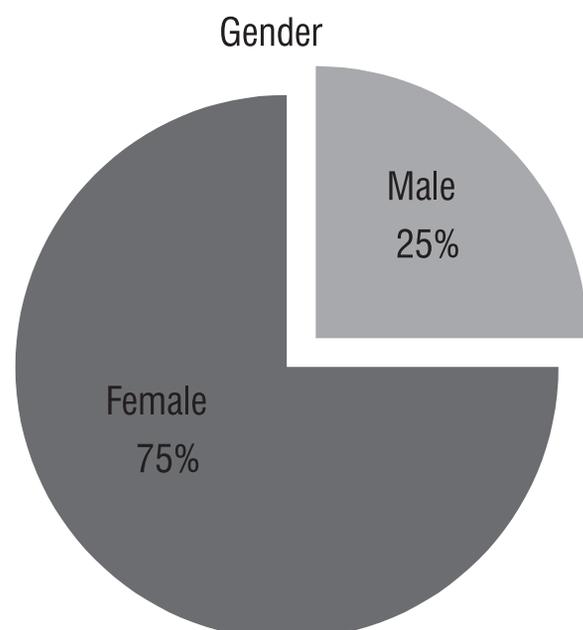


Fig 1: Frequency of Gender

TABLE 1: FREQUENCY OF AGE, GENDER, CLINICAL YEAR, ATTENDANCE LEVELS OF STUDENTS

N=384		Number of Students
Year (Total =384)	3RD Year	155
	4th Year	229
Attendance In Last Semester (Total =384)	Above 75 percent	280
	Below 75 percent	104
	BUMDC	92
Institute Name (Total =384)	Altamash Institute	109
	FJDC	46
	JMDC	54
	Ziauddin University	83

TABLE 2A: REASONS WHY STUDENTS DO NOT PREFER TO ATTEND LECTURES (N=384)

Questions	Responses		
	Yes n	No n	Not Sure n
Do you feel the content of the lecture is poor?	73	286	25
Do you feel the lectures at your institute are not efficiently presented?	104	239	41
Do you feel websites provide better academic content to you than lectures offered at your institute?	162	183	39
Do you prefer self-study / group study over attending lectures?	199	170	15
Do you feel attending lectures is affecting you from completing your other dental school assignments (clinical posting, dental assignments, journal making)?	162	208	14
Do you feel the lectures offered at your institute are not covering the subject course in complete detail?	138	225	21
Are lecture timings not suited according to your schedule?	116	254	14
Do you have transport problems thereby you are unable to attend lectures?	140	236	08
Are you unable to attend lectures at your institute due to the greater distance between the OPD and lecture halls at your institute?	72	282	30
Are health related issues preventing you from attending lectures at your institute?	111	257	16
Are psychological problems and family issues preventing you from attending lectures at your institute	99	270	15
Do you feel you can easily pass exams without attending lectures?	97	254	33

TABLE 2B: REASONS WHY STUDENTS PREFER TO ATTEND LECTURES N=384

Do you enjoy attending lectures?	200	115	69
Do you feel lectures are helping you in achieving good grades?	246	90	48
Is it compulsory for you to attend lectures at your institute for your exam attendance?	332	41	11
Are lectures enhancing your learning skills thereby helping you in answering complex exam questions at your institute?	243	106	35
Are lectures helping you in developing a close interaction with the professors at your institute?	256	99	29
Do you feel lectures/tutorials help you in developing a good interaction with classmates in discussions thereby providing you with greater understanding of the subject?	247	100	37
Does Parents/Family encourage you to attend lectures?	309	58	17
Do you feel attending lectures is essential as its easier learning the subject material than on your own?	263	92	29

presentation skills of their teachers (n=239), however a large number students (n=183) felt that websites provided better academic content to them than the lectures delivered at their colleges, and (n=199) preferred self studying over class room learning.

A majority of students (n=208) mentioned that lectures do not prevent them from completing their other dental school assignments, and were satisfied with the scheduled timings of the lectures (n=254), also a high number of students (n=225) agreed that all the course material is properly covered in their lectures. The greater distance between the lecture halls and OPD did not prevent the students (n=282) from attending lectures, similarly health issues (n=257), psychological/family problems (n=270), and transport to and from the institutions (n=225) were not major factors that prevented students from attending lectures. (Table 2)

The results also showed that maximum number of students (n=200) enjoyed attending lectures while (n=332) students stated that it is compulsory to attend lectures at their respective institutions. A high number of students (n= 246) mentioned that lectures helped them to achieve good grades and (n=254) students believed lectures are necessary in order to pass exams. It was stated by (n=256) students that through lectures they were able to develop a communication with their teachers, also (n=247) students mentioned lectures helped them to develop a close interaction with their classmates. (Table 2) Most of the students (n=263) were content with attending lectures as it made learning easier for them than studying on their own, thereby it was stated by most of the students (n=243) that lectures helped them to answer complex exam questions. It was mentioned by (n=263) students that their parents fully supported and encouraged them to attend class lectures.

DISCUSSION

Nowadays even with so many advanced teaching methods and styles being adopted in academic curriculum, still lectures are considered as foremost modes of teaching in many dental institutions all over the worldwide. But currently decreased lecture attendance at undergraduate education level has been shown to be a growing trend in many universities throughout the world.¹³

In our study, 280 students had attendance levels of more than 75 % and 104 students had attendance levels below 75%. This high attendance rate was found in the presence of a strict attendance policy as stated by the Pakistan Medical and Dental Council (PMDC) where the eligibility criterion for a student to sit in exam is minimum 75 percent. Literature suggests that attendance policy plays a significant impact in

reduced absenteeism.^{8,14} The eligibility criterion set by the Bangladesh Dental Council where attendance policy states that students must have an attendance rate of 80% of all timetabled sessions to sit for final course examinations.¹⁵ In another study the findings demonstrated that implementation of an attendance policy from 75 % to 90% had improved the exam performance of students.¹⁶

Our results showed that most of the students were satisfied with the lecture content and the presentation skills of their teachers. Billings-Gagliardi et al studied the student decisions regarding lecture attendance and they reported that presence of electronic learning materials would not affect the lecture attendance if the students think that the lecture content would contribute in their learning.¹⁷

The two major factors that affected the attendance levels of students in dental colleges of Karachi were; the preference of self studying over classroom learning and the use of online course material by the students. In our study 51.8% students reported that they thoroughly enjoyed learning the text on their own rather than benefiting from class environment this corroborates with the study conducted by Hafeez et al⁸ in which 70.1% dental students had preferred self-directed learning. In another study Shumway et al concluded that some students believed they can gain more knowledge by not attending classes.¹⁸ Our study results concluded that 42.2% chose web-based learning materials as they firmly believed that lectures through online slides and videos were more recent and explanatory than the ones delivered in classroom, this is in positive correlation to a number of studies conducted worldwide^{2,19,20} as was seen in line to a recent study where in their survey a decrease in lecture attendance was seen when podcasts were introduced.²¹ Our results were also in accordance to a study conducted at Tufts School of Dental Medicine that evaluated the relationship of online lecture materials on dental students class attendance in which 35% students used online course material as study guides, stating it was more beneficial than class lectures.²² Another study concluded by Daud *et al* revealed that video recorded lectures were the most popular source of learning by the majority of both dental (84%) and medical (88%) students at University of Bristol.²³

Among the five dental institutions of Karachi, one fourth of students stated health issues (25.9%) and psychological/family problems (28.9%) as their reasons which prevented them from attending lectures. These results were contrary to the ones listed by dental students in India where sickness and health problems (64.58%) were recognized as the main reasons for missing lectures in institutions.²⁴ Our findings stated travel from and to the university was not found to be

stressful by a majority of students (36.5%) this was seen in accordance to the study done by Gul *et al* in Peshawar, which concluded certain social reasons that lead to low attendance were peer pressure (23.03%) and traffic/transportation problems (20.69%).²⁵

It was observed that more than half of students (64.1%) unanimously agreed that lectures have helped them to achieve better examination results.^{21,25} Literature suggests that attendance and academic performance are directly correlated.^{14,26} Khan *et al* in his study compared the results of end term tests among students of two subgroups. Students having low attendance had more failures in exams.²⁷ A recent study conducted at U.S Dental School showed a significant relationship between lecture attendance and final grades of dental students.²⁸ Our findings showed 64.3% students stated that regular attendance in classrooms provided an opportunity for students to develop a communication with their teachers through their various teaching styles and methods. A study conducted in University of Malaya reported that 75% of the year five, followed by 62.3% of year three, 56.7% year four B.D.S students agreed that it is through the profound teaching skills of the teachers that students felt stimulated to ask questions to increase their knowledge and understanding of the subject.²⁹

Our study is the first of its kind that evaluated the factors influencing attendance of lectures among dental students when compared to past studies where medical students are considered. There are certain limitations, particularly the limited number of dental institutions and the attendance was collected primarily based on recall information provided by the students, which might not be accurate, as students typically have overestimated their attendance and it can be a subject to recall bias. However the results of this study highlighted the major reasons as to why students do not prefer to attend lectures as stated compulsory in major dental institutions of Karachi and what measures should be taken to further improve the attendance in lectures delivered in classrooms. Teachers should adopt new innovative ways; videos, case based learning, problem based learning in contrast to the conventional lecture so that students can realize the importance of attending class lectures and opportunity to ask questions, making their own lecture notes and learning the emphasized points during lectures instead of studying on their own.³⁰

CONCLUSION

This study highlighted the attitude of dental students towards a range of factors that potentially affect attendance in lectures. The attendance levels are satisfactory in these dental colleges, as 75 percent attendance is stated mandatory by dental institutions

in Pakistan. Most of the dental students are satisfied from the content and presentation of lectures in their institutes. The faculty members should bring more innovative and newer teaching strategies like case based learning, problem based learning that will keep students engaged and will not force them to look for other teaching opportunities.

RECOMMENDATIONS

As educators, we strive to help our students become lifelong learners. There is a constant surge of new information and technologies, and it has become obvious that it is more important to teach students how to learn through active learning than to merely memorize facts. In order to achieve this goal, there is a need to transform dental education from a teacher-centered model to a student-oriented model.

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Helped in designing and manuscript writing, Both authors contributed significantly to the final manuscript

2 Shama Asghar:

Conceived the idea and planned the study, helped in data analysis and interpretation.