

# FACTORS CONTRIBUTING TO ABSENTEEISM AMONG UNDERGRADUATE MEDICAL AND DENTAL STUDENTS AT A PUBLIC SECTOR UNIVERSITY IN KARACHI, PAKISTAN

Hina Shah, Syed Mohsin Ahmed Rizvi, Marium Irshad, Izma Arif Muqri, Aqsa Mubasher, Dua Ayoub

Department of Community Dentistry, Sindh Institute of Oral Health Sciences, Jinnah Sindh Medical University, Karachi - Pakistan

## ABSTRACT

**Objectives:** To determine the demographic characteristics of undergraduate medical and dental students with absenteeism and to explore the factors contributing to absenteeism among undergraduate medical and dental students at JSMU, specifically within SMC and SIOHS.

**Material and Methods:** A cross-sectional study was conducted at Jinnah Sindh Medical University (JSMU), Karachi, from September to October 2024. The sample size of 322 participants was calculated using a 50% prevalence rate, 5% margin of error, and 95% confidence level. The study included medical and dental students from Sindh Medical College (SMC) and Sindh Institute of Oral Health Sciences (SIOHS) who missed at least five lectures. A structured, closed-ended questionnaire assessed demographic data and factors related to absenteeism. A pilot study validated the questionnaire with a Cronbach's alpha of 0.761. Data was analyzed using SPSS (version 26).

**Results:** Of the 322 participants, 113 were male, and 209 were female. Absenteeism was most common in the 5-day range (76.4%), with class schedule inconvenience and lack of assignment checks being statistically significant reasons for absenteeism ( $p < 0.05$ ). Lack of motivation and long lecture durations were also reported as key factors.

**Conclusion:** Absenteeism is rising among health science students, with long lecture durations being the most significant factor. Improving lecture quality, reducing duration, and teaching more student-centered could help improve attendance.

**Keywords:** Absenteeism, Motivation, Socialization

**This article may be cited as:** Shah H, Rizvi SMA, Irshad M, Muqri IA, Mubasher A, Ayoub D. Factors Contributing To Absenteeism Among Undergraduate Medical And Dental Students At A Public Sector University In Karachi, Pakistan . J Med Sci 2025 January - March;33(1):43-47

## INTRODUCTION

Absenteeism refers to the frequent missing of classes without any valid reason related to education. The absenteeism of students may negatively affect their education and their achievements because the classroom environment provides better interaction of students with teachers. Also, during the lecture, teachers share their personal professional experience with students that cannot be achieved by only reading the textbook.<sup>1</sup>

Students who attend classes properly have better academic and clinical performances as compared to students who miss classes and wards. It affects their moral values. Moreover, students who skip classes continuously

experience psychological problems such as depression or Behavioral disorders and may also be indulging in violent activities and bad habits.<sup>2</sup> Students' achievements and clinical performances are particularly important for medical and healthcare providers because they are concerned with urgent decision-making in life-and-death matters.<sup>3</sup>

According to Massingham and Herrington, students skip classes more as they progress to seniors in college. This behavior may be due to familiarity with the curriculum, past experiences, or lifestyle modifications.<sup>4</sup> Undergraduate medical education aims to produce physicians who have sufficient knowledge about health and disease, better clinical skills, and a professional attitude towards patients and their health. Therefore, students who repeatedly miss classes and wards on examination perform poorly because they remain absent when the topic is being covered.<sup>5</sup>

The reasons for student absenteeism are different from university to university, although the most common reason originates from the institute itself. Various studies evaluate the reasons for absenteeism. One of the problems mentioned by students was to prepare for tests or tutorials, and mostly, the short attendance is found in the

Correspondence

**Dr. Hina Shah**

Associate Professor

Department of Community Dentistry, Sindh Institute of Oral Health Sciences, Jinnah Sindh Medical University, Karachi - Pakistan

**Cell:** +92-315-8750511

**Email:** hina.shah@jsmu.edu.pk

**Date Received:** 30/09/2024

**Date Revised:** 30/12/2024

**Date Accepted:** 01/01/2025

pre-examination period.<sup>6</sup>

Students claim that their interest in their field of study has decreased as compared to the time of admission.<sup>6</sup> The tendency of students to be absent from classes is a major problem for universities because it affects the quality of education.<sup>8</sup> Faculty members and their boring or traditional teaching methods are also an important factor in student absenteeism.<sup>9, 10</sup> The relationship between gender and absenteeism is also different from university to university. The study conducted in a nursing college shows no relationship between gender and absenteeism, but in most of the studies, males are more frequently absent than females.<sup>10-14</sup>

Sleep Deprivation, the burden of study and academic assignments, lack of interest in the subject, excessive socialization, lower course grades, and social and family issues are the other factors related to absenteeism.<sup>12, 13, 15</sup> The feedback session from students should be managed at regular intervals to know the possible causes of absenteeism.<sup>16</sup> The students of this era don't like traditional textbooks because they've more resources to gain education.<sup>17</sup> For example, online self-learning resources and the availability of recorded lectures have markedly decreased classroom response during the past decade.<sup>18</sup> New teaching styles and motivations cause students to attend the lectures. By changing the students' perspective towards attendance, academic performance can be improved.<sup>19, 20</sup>

The absence of students from classes is a major problem in higher education, particularly in the healthcare profession, due to its damaging effect on academic and clinical performance. Therefore, it is necessary to gain insight into the reasons and contributing factors that lead to absenteeism. Despite knowing this, there lies a notable gap between the reason and factors that contribute to absenteeism in literature, especially within the local context. This research will help bridge that knowledge gap within the literature, which will prove beneficial in the long run to help provide such interventions that aim to decrease absenteeism among medical and dental students. Ultimately, this will help medical and dental students enhance their performances by modifying their behavior regarding attendance and regulating a modified learning environment.

## MATERIAL AND METHODS

A Cross-sectional study was conducted at Jinnah Sindh Medical University (JSMU), Sindh Medical College (SMC), and Sindh Institute of Oral Health Sciences (SIOHS) Karachi, Pakistan, from September 2024 till October 2024 after taking permission from the IRB of JSMU.

A sample size of 322 participants was calculated by using the reputable online calculator provided by Open Epi.<sup>21</sup> Criteria for inclusion was undergraduate medical students (1-5 years) and dental students (1-4 years) of JSMU (SMC and SIOHS) who were absent for five lectures

overall were included in the questionnaire. Both males and females willing to participate belonging to any cast, religion, creed, and socioeconomic status were included. Students who were not willing to participate were excluded. Incomplete questionnaires were to be removed as part of the protocol.

A structured, designed questionnaire composed of closed-ended questions and consisting of two parts was used to collect data. The first part deals with demographic questions, for example, age, gender, institute, academic year, etc., along with personal factors and aspects of the learning environment related to absenteeism.<sup>4</sup> In the second part, a 5-point Likert scale containing nine items was used to measure students' satisfaction level towards the university's medical and dental program.

Additionally, a pilot study was conducted on 10 study participants to check the validity of the questionnaire and minimize the misinterpretation of questions.<sup>12</sup> Data from the pilot study were included in the final analysis. Face validity was found to be excellent, and reliability was calculated to be 0.761 Cronbach Alpha, which is interpreted as good. The non-probability convenience sampling technique was utilized to collect data. The questionnaire was distributed among the students of JSMU (SMC and SIOHS) after informing them about the study purpose and criteria and obtaining consent from them. Researchers distributed a hard copy of the questionnaire among participants before a lecture. Students were asked to spare 10 minutes for this activity in advance. Those who consented to participate were given a hard copy of the questionnaire. After filling in the questionnaires, they were returned to the principal investigator.

Collected data was entered and analyzed through Statistical Package for Social Sciences (SPSS version 26.0) to get a descriptive analysis of the participant's gender, number of absences in particular sessions, reasons for absences, and satisfaction level in the university's medical and dental program.<sup>1, 12</sup>

## RESULTS

A total of 322 students from both institutes participated in the study of whom 113 are male and 209 are female with male to female ratio of 1:1.8. The number of participants from SIOHS was 56 while from SMC were 266 and the distribution of participants from 1<sup>st</sup> year was 67, from second year was 66, third-year 69, fourth year 67, and fifth year was 53.

Table 1 shows that most students (76.4%) were absent for 5 days, occurring 1-2 times during the academic year. A smaller group (14.3%) experienced less frequent absences of 5-10 days, with absences occurring 3-4 times, while 9.3% of students had more severe absenteeism, missing 10-15 days and being absent 5 or more times. This suggests that absenteeism is more common in moderate durations and frequencies, with a small but notable group experiencing extended absences.

Table 2: The data was checked for normalcy and

found that it does not follow a normal distribution. We applied for a chi-square test to find out the most common reasons for absenteeism. The results show a non-significant association for several factors, such as the duration of lectures, the ventilation of lecture halls, lack of interest in the subject, and motivation to study. However, factors like an inconvenient class schedule and the absence of assignment checks show a statistically significant relationship with student absenteeism ( $p < 0.05$ ). Students from both institutes report the inconvenience of class schedules as a notable reason for their absences, with SMC students particularly affected. Additionally, lack of self-discipline also emerges as a significant factor influencing absenteeism. These findings suggest that institutional factors related to academic management and personal discipline are key contributors to students missing classes, while other variables, such as peer pressure and time spent in the canteen, show less impact.

## DISCUSSION

Absenteeism is a widespread issue among students globally, across various fields of study. Multiple studies have examined absenteeism among medical students, seeking to identify factors contributing to chronic absence, to address manageable causes to improve attendance. However, there is a lack of relevant literature on this topic in dentistry.<sup>18,22-23</sup> Most authors have defined absenteeism as missing five or more lectures per semester. In recent years, absenteeism has gained significant attention, affecting health science students equally. Universities are increasingly concerned about the quality of graduates, as this can impact the overall standard of healthcare across the country.<sup>2</sup>

**Table No 1: Shows the distribution of absentees according to duration and frequency in the current academic year**

Duration of Absence	Frequency of Absence	Frequency	Percent
5 days	1-2 times	246	76.4%
5-10 days	3-4 times	46	14.3%
10-15 days	5> times	30	9.3%

Studies from Pakistan on absenteeism in medical colleges/universities found that the most common reason for absenteeism was "preparing for tests/exams," while others cited "inappropriate educational environment" and "self-studying".<sup>2,5,6</sup> This contrasts with our findings, where the most frequently reported reason among our population was a "lack of motivation to study" (SIOHS = 38, SMC = 196). Studies from India and Jammu and Kashmir have reported similar findings, with the highest number of absences occurring during exam preparation periods. Other reports pointed to "poor teaching skills of the instructors" as a key factor.<sup>13</sup> Additionally, one study highlighted a gender difference in absenteeism, noting that male students often missed lectures due to their lengthy lectures, while female students most frequently cited health issues as the primary reason for absence.<sup>4</sup> These findings differ from our results.

In Middle Eastern countries, reasons for absenteeism vary significantly from those identified in our participants. The most common reason cited was "lack of sleep," while students from Iran reported the professor's mastery of the subject as the primary motivation for attending lectures.<sup>7,8,12</sup> A study from Tunisia found that students often skipped lectures because they found them boring. Further, certain characteristics were associated with chronic absenteeism: gender ( $p = 0.015$ , males), year of study ( $p = 0.0001$ , second-year students), and whether a student was repeating a year ( $p = 0.002$ , repeater students).<sup>10</sup> In Cyprus, researchers investigating early burnout in medical students found that unhappiness and low motivation were key causes of absenteeism.<sup>23</sup>

The medical profession, particularly the academic phase, is demanding and requires significant dedication and time. Students must absorb and retain a vast amount of information to diagnose and treat diseases, which can make the system feel monotonous. Additionally, courses are often taught in a linear and highly structured manner, further contributing to this issue.<sup>24</sup> As a result, absenteeism is becoming more prevalent among health science students. Identifying the reasons for low attendance in lectures can help in finding solutions and supporting struggling students. In our study, we found that the high-

**Table No 2: The common reasons according to institute for absentees**

Factors	Institute	Pearson Chi Square	Asymptotic Significance (2-sided)	Fisher's Exact Test (2-sided)
The duration of lectures is quite long	SIOHS: 34 SMC: 157	0.05*	0.815	0.882
There is a lack of motivation to study	SIOHS: 38, SMC: 196	0.791	0.374	0.410
The lecture halls are ill ventilated	SIOHS: 35, SMC: 189	1.598	0.206	0.206
The schedule of classes is inconvenient	SIOHS: 29, SMC: 200	12.335	0.000	0.001
The teachers have poor presentation skill	SIOHS: 26, SMC: 146	1.330	0.249	0.302
There is no checking of assignments	SIOHS: 18, SMC: 158	13.867	0.000	0.000
You lack interest in the subject	SIOHS: 26, SMC: 93	2.610	0.106	0.128
You lack self-discipline	SIOHS: 29, SMC: 97	4.558	0.033	0.036
You like to spend more time in the canteen	SIOHS: 14, SMC: 49	1.272	0.259	0.269
You get up late in the mornings	SIOHS: 22, SMC: 85	1.120	0.290	0.349

\*Value is significant up to p-value of 0.05, \*\* Value is significant up to p-value of 0.001

est number of absences reported was five days, with 246 participants reporting this frequency, while 46 participants took 5-10 days off multiple times throughout the semester. The most significant factor affecting lecture attendance in our sample was the "long duration of lectures" ( $p = 0.05$ ).

To improve attendance, several measures can be adopted, including shortening lecture durations and limiting content coverage to avoid cognitive overload and loss of interest. Additionally, training lecturers to make their lectures more engaging and student-centered could help keep students in class.<sup>25</sup> Discussing clinical applications and integrating subjects to cover topics more holistically may further enhance student engagement. Our study found no significant difference in the reasons for absenteeism between medical and dental students. This comparison between the two student communities makes this study the first of its kind. Collaboration with policymakers and students to enhance the overall quality of education and the learning environment may help address this pervasive issue.

This study has several limitations. The cross-sectional design of the study can only capture one point in time. This precludes the ability to establish causal relationships between identified factors and absenteeism. Due to its nature, convenience sampling may have introduced selection bias, limiting the generalizability of the findings as the sample may not entirely represent the broader student population. The use of self-reported data predisposes to both recall and social desirability biases. Participants may report or fail to report absenteeism or the reasons for such, and the sample was targeted at students who had missed five or more lectures, thus excluding participants with less frequent absenteeism. Although a pilot study was conducted to find out the validity of the questionnaire, a small size for the pilot and its inclusion in the final analysis could compromise the reliability of the findings altogether.

The study is conducted at a single institution, Jinah Sindh Medical University (JSMU). The findings might not be generalizable to other medical or dental schools or different geographic regions. Future studies with larger, more diverse samples and longitudinal designs would help better understand the factors influencing absenteeism.

## CONCLUSION

Absenteeism is the new emerging trend in the health sector; students need to be curtailed at this early stage. The commonest reason for this was the long duration of lectures, which could be further worked on by training the faculty members to improve the quality of the lecture delivered and decreasing the duration of the lecture.

## REFERENCES

- Rashid S, Ul Hassan A, Bhat IH, Bhat GM. Analyzing the attitude of medical students toward class absenteeism. *Natl J Clin Anat.* 2021;10:226-31.
- Sial NA, Humayun R, Humayun F. Evaluation of factors causing absenteeism from lectures in a medical college. *Khyber Med Univ J.* 2018;10(3):135-9.
- Sharma SK, Vagha SJ, Ukey UU, et al. Dwindling attendance of undergraduate medical students, reasons and possible solutions. *J Evolution Med Dent Sci.* 2021;10(03):148-152.
- Garg P. Exploring Factors Responsible for Absenteeism among Undergraduate Medical Students. *J Pharm Bioallied Sci.* 2023;15(Suppl 1):S303-S305. doi: 10.4103/jpbs.jpbs\_406\_22. Epub 2023 Jul 5. PMID: 37654357; PMCID: PMC10466599.
- Qureshi MI, Ahmad A. Medical students perspective on absenteeism and its remedies. *Pakistan Armed Forces Medical Journal.* 2019;69 (2), 332-39.
- Din MU, Fatima N, Awan S, Mariyam M, Naseer U, Tarar KA. Medical Students' Perspectives Towards Absenteeism in Class. *Esculapio – JSIMS.* 2023;19(03):365-370.
- Bahadori MH, Salari A, Alizadeh I, Moaddab F, Balasi LR, Soodmand M. The Root Causes of Absenteeism in Medical Students: Challenges and Strategies Ahead. *Educational Research in Medical Sciences.* 2020;9(2).
- Shahrabad HD, Shahroodi MV, Parnian S, Nateghi S, Anbarani MA. Factors affecting class attendance: perspective of medical students at Mashhad University of Medical Sciences Iran. *Med Edu Bull.* 2022;3 (4): 577-584.
- Mirzazadeh A, Aminian M, Alizadeh M, Sahebozamani E, Sabzi Aliabadi S. Factors Affecting Class Absenteeism: Perspective of Medical Students and Faculty Members at Tehran University of Medical Sciences. *Iranian Journal of Medical Education.* 2018; 18:243-56.
- Ben Fredj M, Sahli J, Ezzaairi F, Ezzine A, Saad S, Ajmi T. Influencing factors of absenteeism among first cycle of medical students in the Faculty of Medicine of Sousse. *Tunis Med.* 2019;97(4):519-524. PMID: 31729701.
- Magobolo GN, Dube BM. Factors influencing the high absenteeism rate of student nurses in clinical areas at a nursing college in the Lejweleputswa District. *Curatoinis.* 2019;42 (1):1-6.
- Qutub, Mahmoud Fareed et al. "Absenteeism among Saudi Medical Students." *The Egyptian Journal of Hospital Medicine.* 2018;70:1248-1253.
- Joshi H, Monga S, Raina S. Exploring Factors of Absenteeism Among Students Attending Community Medicine Department. *Indian J Comm Health.* 2022;34(1):123-129.
- Mitra S, Sarkar P, Bhattacharyya S, Basu R. Absenteeism among undergraduate medical students and its impact on academic performance: A record-based study. *J Educ Health Promot.* 2022 ;11:414. doi: 10.4103/jehp.jehp\_638\_21. PMID: 36824099; PMCID: PMC9942141.
- Beheshti Fard, S., Vahedian-Shahroodi, M., Khashi, Z. The Effect of Class Attendance on Students' Academic Achievement, Professors' Motivation, and Student Professionalism: Perspective of Medical Sciences Students. *Medical Education Bulletin,* 2023; 4(1): 647-658.
- Khilnani A. K., Thaddanee R. Perception of faculty members regarding attendance of undergraduate medical students. *GAIMS Journal of Medical Sciences.* 2022; 2(2):4-8.
- Mokhtari S, Nikzad S, Mokhtari S, Sabour S, Hosseini S. Investigating the reasons for students' attendance in and absenteeism from lecture classes and educational planning to improve the situation. *J Educ Health Promot.* 2021 Jun 30;10:221. doi: 10.4103/jehp.jehp\_1112\_20. PMID: 34395658; PMCID: PMC8318137.



18. Latif Khan Y, Khurshed Lodhi S, Bhatti S, Ali W. Does Absenteeism Affect Academic Performance Among Undergraduate Medical Students? Evidence From "Rashid Latif Medical College (RLMC)". *Adv Med Educ Pract*. 2019;10:999-1008. doi: 10.2147/AMEPS226255. PMID: 31819699; PMCID: PMC6897060.
19. Hakami AR. Effect of absenteeism on the performance of medical sciences students: gender differences. *Med Educ Online*. 2021;26(1):1875531. doi: 10.1080/10872981.2021.1875531. PMID: 33468038; PMCID: PMC7833043.
20. Castillo, C. A. ., Dayauon, J. A. ., Lapore, J. ., Pulanco, J. Y. ., Lopez, J. ., May-As, A. J. ., & Catibag, R. P. The Causes of Absenteeism and its Effects on the Academic Performance of ABM Grade 12 students in Bestlink College of the Philippines SY 2018-2019. *Ascendens Asia Singapore – Bestlink College of the Philippines Journal of Multidisciplinary Research*.2019;1(1).
21. Dean AG, Sullivan KM, Soe MM. OpenEpi: Open Source Epidemiologic Statistics for Public Health, Version. [www.OpenEpi.com](http://www.OpenEpi.com), updated 2013/04/06, accessed 2024/04/30
22. Castillo, C. A. ., Dayauon, J. A. ., Lapore, J. ., Pulanco, J. Y. ., Lopez, J. ., May-As, A. J. ., & Catibag, R. P. . (2019). The Causes of Absenteeism and its Effects on the Academic Performance of ABM Grade 12 students in Bestlink College of the Philippines SY 2018-2019. *Ascendens Asia Singapore – Bestlink College of the Philippines Journal of Multidisciplinary Research*, 1(1). Retrieved from <https://ojs.aaresearchindex.com/index.php/aasgbcjpmra/article/view/2526>
23. Nteveros A, Kyprianou M, Artemiadis A, Charalampous A, Christoforaki K, Cheilidis S, Germanos O, Bargiotas P, Chatzittofis A, Zis P. Burnout among medical students in Cyprus: A cross-sectional study. *PLoS One*. 2020;15(11):e0241335. doi: 10.1371/journal.pone.0241335. PMID: 33206654; PMCID: PMC7673498.
24. Gautam N, Dhungana R, Gyawali S, et al. . Perception of medical students regarding TU-IOM MBBS curriculum and teaching learning methods in Nepal. *Kathmandu Univ Med J KUMJ*. 2022;20:219–224.
25. Arnold M, Goldschmitt M, Rigotti T. Dealing with information overload: a comprehensive review. *Front Psychol*. 2023 ;14:1122200. doi: 10.3389/fpsyg.2023.1122200. PMID: 37416535; PMCID: PMC10322198.
26. Tuomainen, S. Student-Centred Teaching to Support Learning. In: *Supporting Students through High-Quality Teaching*. 2023. Springer Texts in Education. Springer, Cham. [https://doi.org/10.1007/978-3-031-39844-5\\_5](https://doi.org/10.1007/978-3-031-39844-5_5)

**CONFLICT OF INTEREST:** Authors declare no conflict of interest

**GRANT SUPPORT AND FINANCIAL DISCLOSURE:** NIL

#### Authors Contribution:

Following authors have made substantial contributions to the manuscript as under

Authors	Conceived & designed the analysis	Collected the data	Contributed data or analysis tools	Performed the analysis	Wrote the paper	Other contribution
Shah H	✓	✗	✓	✗	✓	✗
Rizvi SMA	✓	✓	✗	✓	✓	✗
Irshad M	✗	✓	✗	✗	✓	✗
Muqri IA	✓	✓	✓	✗	✓	✓
Mubasher A	✓	✓	✗	✓	✓	✗
Ayoub D	✗	✓	✗	✗	✓	✗

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

#### Ethical Approval:

**This Manuscript was approved by the Ethical Review  
Board of Jinnah Sindh Medical University, Vide No. JSMU/  
IRB/2024/894. Dated: 04 09 2024**



This work is Licensed under a Creative Commons Attribution-(CC BY 4.0)