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Original Article

Others Section

Understanding the Estranged Attitude of Medical Students while Attending Lectures at a Medical College in Eastern India: A Cross-sectional Study

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ABSTRACT

Introduction: Absenteeism among medical undergraduate students during lecture classes is a worldwide problem in medical education. Their disengaged attitude towards attending lectures is associated with poor grades in examinations and contributes to poor professional socialisation.

Aim: To identify the different factors responsible for absenteeism among medical undergraduate students during lecture classes and gather feedback that may help improve the content and delivery of these classes.

Materials and Methods: This cross-sectional survey was conducted at the Department of Biochemistry, Bankura Sammilani Medical College, West Bengal, India. The study duration was six months, from October 2022 to March 2023. A total of 199 undergraduate medical students from phase-I voluntarily participated in the study out of a total of 200 students. A prevalidated questionnaire using the Likert scale was used as the study tool to determine the students' perspectives on poor attendance. Additionally, a focused group discussion was held to obtain the students' opinions on improving the presentation of lectures. The responses were recorded, and the Tastle and Wierman tests were conducted to derive a consensus opinion.

Results: Among the participants, 169 (84.9%) strongly agreed and 125 (62.8%) agreed that access to multiple websites and a preference for self-study were factors leading to skipping lectures, respectively. There was a strong agreement, with a consensus score of 0.52, that factors such as the inability of the mental capacity to match the chosen course, poor content, and monotonous presentation were important contributors to absenteeism. A significant correlation was observed between internal assessment scores and lecture attendance (p-value <0.01, r-value=0.4). Approximately 44% of participants believed that a chalk and talk approach followed by small group discussions was the best teaching method.

Conclusion: This cross-sectional survey identified multiple factors, such as access to various e-learning platforms, a preference for self/group study, and technical difficulties, as reasons for poor attendance in lecture classes. However, improvements in content, mode of presentation, and clinical relevance of topics may enhance students' attitudes towards attending regular lectures and improve their performance.

Keywords: Absenteeism, Performance, Professional, Undergraduates

INTRODUCTION

Lecture classes have been regarded as the most convenient teaching method with the rational use of resources and addressing a large number of learners in a specified time in medical institutions too. With the advent of newer technology, there are various software programs that have made lectures more attractive and interactive through animations, videos, etc., [1]. Attendance in lecture classes is not only to enhance scores in assessments but also improves professional socialisation [2,3]. The literature review defines "absenteeism" as "frequent absence from classes without any good reason" [4]. Low attendance in lectures is also common in medical education. Previous surveys indicate that issues such as sickness, aversion to teaching methods, lack of motivation, conducive environment, and access to e-learning platforms are major factors contributing to absenteeism from routine lecture classes in institutions [5-7]. In recent years, it has been observed that students are more focused on postgraduate entrance exams from the very beginning of their studies. As a result, they enroll themselves in various e-learning programs for entrance exam preparation and consider those online modules as a substitute for regular lecture classes. Medical education learners are well exposed to and have adapted to virtual teaching-learning platforms due to the technological revolution. Additionally, the unprecedented COVID-19 epoch and lockdown have significantly increased students' inclination towards online learning platforms [8]. Considering the above facts, it is important to recognise that poor attendance in lecture classes not only results in lower grades but also hinders professional socialisation and development. Therefore, absenteeism may be considered a serious issue in medical education. However, there is a lack of studies addressing factors such as content, mode of presentation, and clinical correlation of topics and their impact on improving attendance in lecture classes. The present study aimed to assess the perception of first-year medical undergraduates regarding the causes of absenteeism among medical students in a medical college in West Bengal, India.

MATERIALS AND METHODS

This cross-sectional study was conducted in the Department of Biochemistry at Bankura Sammilani Medical College, West Bengal, India. The study duration was six months, from October 2022 to March 2023. The study was conducted after receiving permission from the Institutional Ethical Committee (IEC) (Memo no: BSMC/IEC/3439 Dated 12/10/2022). The participants were students from the phase I MBBS students of the 2021-2022 batch.

Inclusion criteria: Students who were selected through convenient sampling and who voluntarily participated were included in the study.

Exclusion criteria: Students who were unwilling to participate in the study were excluded from the study.

Sample size calculation: Since this was a qualitative study involving categorical variables, the sample size was determined using a table adapted from a study by Adam AM, with a 95% confidence interval and a margin of error of 0.05 [9].

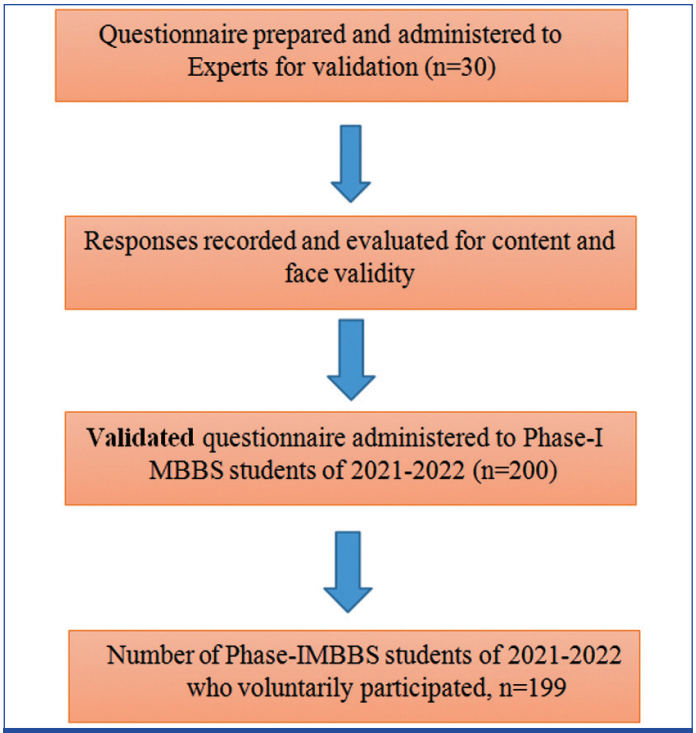
Study Procedure

A pretested and validated questionnaire in Google Forms (https://forms.gle/sLvmASWZmxqnP9qD9) was given to the students after explaining the details about its various contents related to students' opinions regarding their absenteeism from regular theory classes. All participants were briefed about the importance, background, and objectives of the study. They were assured of confidentiality during the collection of individual data, and anonymity would be maintained while collecting the data.

The questionnaire used in this study consisted of various aspects pertaining to different perspectives related to poor attendance in theory classes. Participants were asked to fill out the questionnaire on their own without revealing their answers to other students. The students' own perceptions and views about improvement and feedback regarding the Biochemistry theory class were also recorded after having a focused group discussion.

The 11-item questionnaire was adopted from previous studies, modified, and validated by the principal investigator and co-investigator [10,11]. All the items were assessed using a Likert-type scale, with responses ranging from 'Strongly disagree', 'Disagree', 'Neutral', 'Agree', to 'Strongly agree', and with values ranging from 1 to 5 points. The questionnaire was validated through face validity, content validity (using CVR by Lawshe test, value=0.771), and reliability measurement by Cronbach's alpha (0.812) after giving the questionnaire to a panel of 30 experts [12,13]. These 30 experts were faculties from different subjects.

The validated questionnaire was administered to 200 Phase-1 students, and 199 students voluntarily participated in the study. The methodology has been detailed in [Table/Fig-1]. A closed questionnaire has been used to exclude bias. The outcome of the study was to identify factors related to absenteeism in lecture classes and to identify factors that may improve attendance in lecture classes according to the student's perspective.



[Table/Fig-1]: Flow diagram of methodology.

STATISTICAL ANALYSIS

The responses received from the participants were recorded and tabulated using Microsoft Excel, and appropriate statistical analysis was conducted. The consensus score among the Likert scale items of the 11-item questionnaire was derived using the calculation method defined by Tastle WJ and Wierman MJ [14].

The cumulative scores of formative assessments were also compiled and tabulated. Pearson's correlation tests were performed to assess whether any association existed between poor attendance and performance in assessments. The chi-square test was conducted on the responses of the study questionnaire, and correlations were calculated using MedCalc version 20.0.

RESULTS

The present study enrolled approximately 199 students out of 200 as participants. Among the 199 student participants, 127 (63.8%) were male, and 72 (36.2%) were female. The students' perceptions regarding poor attendance are detailed in [Table/Fig-2]. Approximately 49.2% of the students opined that the way lectures are presented is not beneficial. Out of the 199 students who voluntarily participated in the study, 169 (85%) agreed that access to the internet provides lecture videos with better presentation or animation, and 125 (62.8%) preferred self/group studying over attending lectures. However, 81 (40.7%) student participants denied the fact that they can clear exams without attending theory classes. The Chi-square test was performed on the responses of the study questionnaire. The responses were grouped on an agree/disagree scale, excluding the neutral opinion in the statistical analysis, as various studies indicate that participants may falsely report via the neutral option due to cognitive effort, ambivalence, and social desirability [15].

Among the 199 responders, 95 students strongly agreed that the content of lectures was beneficial. A focused group discussion was conducted to evaluate the factors that may help facilitators improve the content and delivery of lecture classes. Among the 199 responders, 155 had a strong opinion that classes should be conducted using a chalk and talk method. The factors that may be helpful for the development of lecture classes, according to the students' opinions, are detailed in [Table/Fig-2].

The consensus among the Likert scale items was calculated using the formula described by Tasle and Wierman, and [Table/Fig-3] describes the students' consensus opinion about aversion factors to attending routine lecture classes. The students' opinions on how class content can be improved were recorded during the focused group discussion, and the results are tabulated in [Table/Fig-4]. There was a significant correlation between internal assessment scores and theory attendance percentage (p-value <0.01, r-value=0.4) [Table/Fig-5].

DISCUSSION

Regular attendance is not only a prerequisite for medical students to appear for university examinations, but poor attendance can also disrupt the learning process, educational achievement, and professional socialisation [5]. In the present study, 49.2% of the students agreed that the content of the lectures was poorly presented. A cross-sectional survey by Bati AH et al., on 663 students from medical, nursing, dental, and pharmacy programs reported sleeplessness as a reason for skipping classes. In present study, 56.7% of the participants strongly agreed that they could not attend early morning classes due to being late risers.

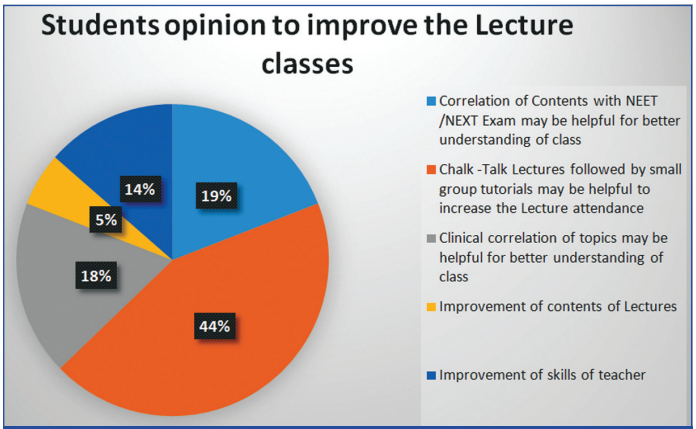
S. No.	Items tested	Strongly agree n (%)	Agree n (%)	Neutral n (%)	Disagree n (%)	Strongly disagree n (%)	p-value
1.	Do you feel that the way of lectures presentation is not beneficial?	50 (25.1)	48 (24.1)	51 (25.6)	37 (18.6)	13 (6.5)	<0.0001*
2.	Do you feel that the content of the lecture is not beneficial?	29 (14.6)	26 (13.1)	49 (24.6)	67 (33.7)	28 (14.1)	<0.0001*

3.	Do you feel access to various websites/YouTube provide lectures with better presentation and animation?	93 (46.1)	76 (38.2)	23 (11.6)	4 (2.0)	3 (1.5)	<0.0001*
4.	Do you feel that linguistic barrier (as you have studied in Vernacular language till XII) is a hindrance for understanding the class?	38 (19.1)	27 (13.6)	38 (19.1)	56 (28.1)	40 (20.1)	<0.0001*
5.	Do you prefer self/group studying over attending lectures?	61 (30.7)	64 (32.2)	54 (27.1)	12 (6)	8 (4)	<0.0001*
6.	Do you feel inability of the mental capacity to match the course opted for is a hindrance to attend lecture class?	43 (21.7)	52 (26.1)	54 (27.1)	32 (16.1)	18 (9.0)	<0.0001*
7.	Do you feel you can pass without attending lectures?	28 (14.1)	36 (18.1)	54 (27.1)	54 (27.1)	27 (13.6)	<0.0001*
8.	Do you have trouble in attending lectures due to transportation problem?	17 (8.5)	20 (10.1)	30 (15.1)	66 (33.2)	66 (33.2)	<0.0001*
9.	Do you have problem in waking up early, as always go to bed late?	53 (26.6)	60 (30.5)	28 (14.1)	34 (17.1)	24 (12.1)	<0.0001*
10.	Do you feel lack of motivation to regular attendance due to absence of guidance from the institute/department?	44 (22.1)	64 (32.2)	49 (24.6)	23 (11.6)	19 (9.5)	<0.0001*
11.	Do the factors like visibility of board, difficulty to hear voice due to poor set-up of lecture class is hindrance to attend theory class?	36 (18.1)	47 (23.6)	39 (19.5)	55 (27.6)	22 (11.1)	<0.0001*

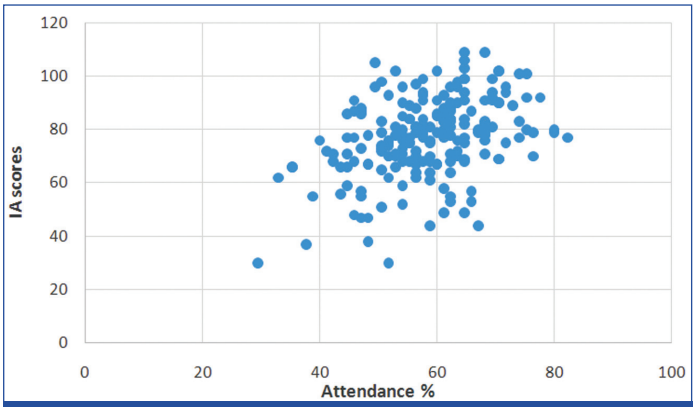
[Table/Fig-2]: Students perception about absenteeism from lecture classes (n=199). Figure in parenthesis suggest percent distribution.
*Statistically significant

Indicator	Statement	Strongly agree and agree	Consensus score
Students' opinion	Access to multiple websites/internets with better presentation or animation	169 (84.9%)	0.70
	Preference for self/group studying	125 (62.8%)	0.61
	Inability of the mental capacity to match the course opted for is a hindrance to attend lecture class	5 (47.7%)	0.52
	The way of lectures presentation is not beneficial and monotonous	98 (49.2%)	0.52

[Table/Fig-3]: Perception of learners regarding factors that causes aversion to attend regular lecture classes.



[Table/Fig-4]: Students' opinion to improve attendance from FGD.
#NEET: National eligibility cum entrance test; NEXT: National exit exam for MBBS



[Table/Fig-5]: Scatter diagram showing correlation between attendance% and internal assessment scores (p<0.01, r=0.4).

In a study by Tripura K et al., 25.5% agreed that the poor skills of the teachers were associated with students' poor attendance in lecture classes [11]. Previous studies on medical student absenteeism suggested that poor skills of lecturers, ineffective content presentation techniques, and a lack of adaptability to match the medical curriculum are reasons why students skip their regular classes [16]. Present study also clearly indicated that 27.7% and 85% of the participants found the content of the lectures to be poor, and having access to multiple websites and the internet provided them with opportunities to download videos of better quality. A similar finding was noted by Bariya B et al., study, they suggested that 34% agreed that the content was delivered poorly [17]. Approximately 32.7% of the study participants found a linguistic barrier to be a hindrance in understanding the class. A report by Gupta S et al., also suggested that linguistic barriers may induce academic-related stress [18]. Students might avoid attending classes to avoid further stress.

The factors that the students identified as strong reasons for being absent from routine lecture classes include having access to multiple websites/internet with better presentation or animation, a preference for self/group studying, the inability of their mental capacity to match the chosen course, and monotonous lecture presentations. The consensus scores calculated by Tastle and Wierman for all these factors were above 0.5 [Table/Fig-3]. Similarly, monotonous teaching, poor teacher skills, and ineffective content presentation have also been established as aversion factors for attending lecture classes in a survey conducted by Sharma SK et al., [19].

A significant correlation was observed between the internal assessment scores and theory attendance percentage of the learners (p-value <0.05, Pearson's correlation coefficient 'r'=0.4). These findings are in line with a study by Dhaliwal U, which suggested an association between higher attendance percentages and better grades [20].

A focused group discussion was conducted with the participants to gather feedback and suggestions for improving the content and presentation of the classes. Approximately 155 participants expressed a preference for chalk-talk over PowerPoint as the mode of presentation. This finding aligns with the report by Hamid DS, where medical students suggested that chalk-talks offer more opportunities for teacher-student interaction compared to PowerPoint lectures [21]. Furthermore, approximately 5% and 15% of the participants suggested improvements in the content of the lectures and the skills of the teachers, respectively. Approximately 18% of the students suggested that clinical correlations of topics would be helpful for better understanding of the lecture classes.

Indian medical education has undergone a transformation from a subject-centred curriculum to Competency-Based Medical Education (CBME). The CBME curriculum in India emphasises the importance of Early Clinical Exposure (ECE) in medical education. However, interdisciplinary coordination and faculty training pose major challenges for implementing ECE [22].

Additionally, 19.1% of the participants suggested that correlating lecture topics with multiple-choice questions for postgraduate entrance examinations would aid in better understanding of the

topics. The number and distribution of postgraduate courses in medical colleges are often lower than the number of undergraduates qualifying each year. This creates pressure on students, leading them to enroll in online platforms for postgraduate entrance exam coaching from their early years and thereby skipping regular classes.

Limitation(s)

The present study had several limitations. Firstly, it was a cross-sectional single-centred study that only included first-year students, which may limit the generalisability of the findings. Additionally, factors such as stress related to being away from home and peer pressure may also be associated with skipping classes. However, the study did not assess stress using any specific scale.

CONCLUSION(S)

Absenteeism was also observed in present study, and multiple reasons were attributed to poor attendance in lecture classes. However, this study is the first of its kind to evaluate the factors that could improve lecture class attendance from the students' point of view. Furthermore, this study also highlighted that lecture classes with a chalk-talk mode of presentation and clinical correlation may attract students to attend. The significant statistical correlation of attendance percentage clearly indicates that regular attendance in lecture classes will undoubtedly improve grades in future exams and have a positive impact on the professional growth of medical undergraduates.

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