



## Factors Affecting Class Attendance: Perspective of Medical Students at Mashhad University of Medical Sciences, Iran

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### Abstract

**Background:** The primary place for teaching, especially difficult scientific subjects is the classroom. Nowadays, many students do not want to attend classes. This study aimed to investigate the factors affecting student attendance in the classroom from the perspective of medical students of Mashhad University of Medical Sciences (MUMS).

**Materials and Methods:** This cross-sectional study was conducted on medical students of MUMS (nursing and midwifery, pharmacy, and health sciences students) who participated in a two-day entrepreneurship workshop using the available sampling method. Data were collected using a standard questionnaire containing demographic questions, and 28 items on factors affecting student attendance in classrooms on a five-point Likert scale were used. The questionnaire was self-administered by the students. The data were analyzed using SPSS software version 16.0.

**Results:** In the study, 101 students of three faculties of MUMS, including nursing and midwifery (39.6%), health sciences (36.6%), and pharmacy (23.8%), participated. The most important factor affecting the attendance of students in the classroom was factors related to professors ( $3.93 \pm 0.61$ ), factors related to the evaluation system ( $3.87 \pm 0.63$ ), and student-related factors ( $3.86 \pm 0.56$ ). The lowest average score was related to the physical conditions of the classroom ( $3.59 \pm 0.77$ ).

**Conclusion:** The attendance of students in classrooms is affected by factors related to the professor, students, and the evaluation system.

**Key Words:** Class attendance, Factors, Effects, Iran, Medical Students.

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## 1- INTRODUCTION

The quality of education is an essential concern of higher education systems in most countries, and much attention has been paid to it in recent years (1, 2). The absence of students from classrooms is a growing problem in universities, which can affect the quality of education (3). It is generally believed that the classroom is the primary place for teaching, especially difficult scientific subjects (4). The classroom is a suitable place to transfer the professors' experiences to the students and to better understand the course material. Students who attend the class and interact with the professor usually try to improve their behavior, decisions, and future goals by identifying with the professor and modeling their roles (3). Absence from classrooms disrupts the dynamic teaching-learning process and creates a boring and unpleasant environment (5). The findings show that lack of attendance in classrooms, which can start from the moment they enter the university, decreases the academic motivation of students (4). Since the motivation of all students is not the same, and much of the professors' attitudes and experiences are transferred in the classroom, the professor can increase the motivation of students by raising the curiosity and enthusiasm of students for the teaching subject during the lecture (6-10). A study by Gump (7) on the factors that encourage students to participate in the class showed that professors have the greatest impact on attendance and the attractiveness of a course. Sleight et al. believe that students who are present in the class hear the discussion of concepts, the professor's point of view on the course material, and the questions and suggestions of other students and can compare their information with others, improving the interaction of learners and instructors (11). The progress of every country depends on

committed and disciplined students, and the spread of absenteeism from classes among students harms their educational performance and progress in scientific fields (12). University attendance and student absenteeism have become major problems in universities. Student attendance is essential as not all institutions provide online or e-learning education, and students must attend classes regularly to benefit from the information provided by the teachers. Non-attendance of students in theoretical classes is an educational problem that has recently been on the rise in medical sciences universities (13). Medical students, who will have to deal with the health and preservation of human life in the future, are substantial and valuable assets of every country, and their effective and efficient training regarding education, research, and culture is an essential duty of universities. The absence of students from classrooms affects their capabilities, and without exchanging ideas in classrooms, educational transformation cannot occur for students. Therefore, it is necessary to understand the factors that contribute to student absenteeism and define strategies to prevent this problem. This study aimed to determine the factors affecting students' attendance in the classroom from the perspective of medical students of Mashhad University of Medical Sciences (MUMS).

## 2- MATERIALS AND METHODS

### 2-1. Study design

This descriptive-analytical study was conducted in 2022 at Mashhad University of Medical Sciences (MUMS), Iran. Sampling was done using the census method and in an accessible way. The sample included students of three faculties of pharmacy, health and nursing, and midwifery who participated in the entrepreneurial skills training workshop. Of the students participating in the

workshop, those who were willing to participate in the study completed the questionnaire.

## 2-2. Instruments

A questionnaire was used for data collection and consisted of two parts; the first part contained questions about the individual characteristics of the student, including age, gender, marital status, the field of study, and the year of University entrance. The second part contained 28 items related to factors affecting student attendance in the classroom. The items were from six areas: professor (seven items), student-related factors (seven items), content-related factors (six items), motivational factors (two items), physical factors (two items), and factors related to evaluation (two items). The items were scored based on a five-point Likert scale from "completely agree" (score 5) to "completely disagree" (score 1). The validity and reliability of the questionnaire were confirmed by Mirzazadeh et al. (14), with a content validity coefficient of 0.81, a reliability coefficient of  $r=0.79$ , and  $ICC=0.79$ .

## 2-3. Ethical considerations

After obtaining permission from the workshop and university officials, the questionnaires were distributed and collected in person. Participation in the study was not mandatory, and the participants completed the questionnaires

willingly. Confidentiality of names, publication of results in a general manner, and collection of information without mentioning names were other considerations of the study.

## 2-4. Data analysis

The data were presented using descriptive statistics such as frequencies, percentages, means, and standard deviations. A p-value less than 0.05 was statistically significant.

## 3- RESULTS

A total of 101 students from three faculties of MUMS participated in this study. The average age of students was  $(22.96 \pm 4.558 60.4)$ , 60.4% were female, and 59.4% were undergraduate students (**Table.1**). Of the total participants, 39.6% were nursing and midwifery students, 23.8% were pharmacy, and 36.6% were health students. The results showed that the primary factors related to attendance in classrooms were the professor with an average of  $3.93 \pm 0.95$ , the evaluation system with an average of  $3.87 \pm 0.63$ , and factors related to students with an average of  $3.86 \pm 0.56$ . The lowest average score was related to the physical conditions of the classroom with  $3.59 \pm 0.77$ , and motivational factors with  $3.61 \pm 0.95$ . Factors affecting the attendance of students in the classroom, regardless of the area, are shown in **Table.2**.

**Table-1:** General characteristics of participants (n=101).

Variables	Sub-group	Number	%
Gender	Male	40	39.6
	Female	61	40.4
Major	Nurse	30	29.7
	Midwife	10	9.9
	Health Sciences	27	26.7
	Health Education	4	4
	Environmental Health	6	5.9
	Pharmacy	24	23.8
	BSc (Bachelor )	60	59.4
Educational level	MSc (Master Science)	12	11.9
	PhD	5	5
	MPharm (Master of Pharmacy)	24	23.8
	Mean $\pm$ Standard deviation		
Age, year	22.96 $\pm$ 4.558		

**Table-2:** Factors Affecting Students' Class Attendance from the Medical Students' Perspective (n=101).

Professors Related Factors	Mean± SD (Ranged: 1-5)
High academic mastery and mastery of the professor in the content makes the students attend the class.	4.22± 0.83
The educational design of the class (correct and logical organization of the materials by the teacher, specifying the objectives of the class, specifying the method of presentation at the beginning of the class, presenting the whole lesson at the beginning of the class and specifying the path of the class to the end) makes students attend the class.	4.06 ± 0.94
The use of active, cooperative and other similar methods of teaching makes students attend the class.	3.75± 1.02
The professor's interest and motivation towards education makes students attend the class.	3.80± 1.06
The friendly and happy atmosphere of the class, if it is proper and appropriate, will make the students attend the class.	3.95± 1.01
Applying the principles of effective presentation (power of speech and clear expression, confidence in speaking, using hand movements and body language appropriately, changing the tone of voice, making eye contact with students) makes students attend the class.	3.93± 1.06
Clearly specifying the application of the meeting materials in the field of medicine makes students attend the class.	3.83± 0.98
Total	3.93± 0.61
Content related factors	Mean± SD
Specialized content causes students to be absent from class.	3.21 ± 1.18
Repetitive content between different courses causes students to be absent from class.	3.80± 1.01
Old information and lack of update of professor's information causes students to be absent from class.	3.79± 0.93
Content unrelated to the field of medicine causes students to be absent from class.	3.76± 1.08
If the subject is complicated and cannot be learned by individual study, it will cause students to attend the class.	3.73± 1.08
If the class content is limited to books or pamphlets or internet content, it will cause students to be absent from class.	3.69± 1.07
Total	3.66±0.62
Students Related Factors	Mean± SD
Regularity and responsibility of the student makes her/him attend the class.	3.80± 1.17
The student's personal interest in the subject makes her/him attend the class.	4.14± 0.97
Pre-reading and preparation makes the student attend the class.	3.77± 1.06
The connection between the specialized field that the student wants to choose and the content of the session will make the student attend the class.	4.12± 0.86
The positive view of the higher year students towards the course and the professor makes the student attend the class.	3.89± 0.93
Participating in extracurricular activities causes the student to be absent from class.	3.47± 1.03
Difficulty waking up causes the student to miss class.	3.88± 1.21
Total	3.86± 0.56
Motivational Factors	Mean± SD
Roll-calling makes the student attend the class.	3.84± 1.09
Conducting a class exam (Quiz) makes the student attend the class.	3.40± 1.20
Total	3.61± 0.95
Physical Conditions Related Factors	Mean± SD
The classroom facilities and its conditions such as temperature and light and the presence of suitable heating and cooling facilities, especially in very hot and very cold seasons, make students attend the class.	3.93± 0.96
The overcrowding of the class and the number of students causes students to be absent from class.	3.27±1.18
Total	3.59± 0.77
Evaluation System Related Factors	Mean± SD
Alignment of class discussions and end-of-semester exam makes students attend class.	3.82± 0.96
Approaching the days of exams causes students to be absent from class.	3.93± 0.95
Total	3.87± 0.68

SD: Standard deviation.

#### 4- DISCUSSION

The purpose of this study was to determine the factors affecting students' attendance in the classroom from the

perspective of medical students of Mashhad University of Medical Sciences. The results showed that the primary factors were related to the professor, the evaluation system, and the student.

The significant effect of the characteristics, expertise and proficiency of the professors, and their power of expression on the attendance of students in the classroom is consistent with other studies. In a study at Sabzevar University of Medical Sciences, Azmoudeh et al. indicated the factor of the professor and their ability of expression as the most important factor affecting student attendance in the classroom (15). Vakili et al. (16), Tarabi et al. (13), Nabavi et al. (17), Fashihi Harandi et al. (18), Ghorbani et al. (19), and Nazari Vanani et al. (20), achieved similar results. It can be concluded that in most studies, the primary factor affecting student attendance in the classroom is the characteristics of the professor, their mastery of the content, and their power of expression. The present study found that the friendly and cheerful atmosphere of the class, if properly managed, can have a positive effect on student attendance. The professor's interest and motivation in teaching and the energy that they spend in class can improve this atmosphere. The results of similar studies indicate that faculty members should be informed of the significant effect of the role and teaching style of the professor on attendance in the classroom. Several studies have shown that inefficient teaching, inappropriate behavior of professors with students, and insufficient training in professional ethics are among the major complaints of students about the educational system (21, 22). Identifying and understanding the factors affecting the attendance of students in the class in higher education institutions might affect the policies of the institutions, the performance of professors, and the improvement of the higher education process (23). The present study found that another essential factor affecting student attendance in the classroom is the evaluation system. It seems that when the exam season is approaching, the interference of the exam schedule in class times contributes considerably to

absenteeism from class sessions. It may be possible to plan the students' schedules so that the final exam season is separate from the educational period. When the students have sufficient time to take the exams, this cause of absenteeism is solved to some extent (14). This study also found that the regularity and responsibility of students are important factors affecting attendance in the classroom. According to Morin, learning responsibility is demonstrated through participating in classes, laboratories, and seminars and completing homework assignments on time and with quality (24). Therefore, strategies such as providing an opportunity for students to present part of the material and projects and virtual education methods can have a positive effect on the responsibility of learning and should be considered in education. The present study found that roll call and checking the attendance or holding an exam can also affect student attendance in the classroom. However, it should be noted that when students are forced to attend an ineffective lecturer's classroom via roll-calling, their learning their learning will decrease. In other words, the main purpose of the students' presence in the classroom is to experience learning opportunities that are not available outside. Therefore, it is not appropriate to use roll-calling as a controlling tool in a lecture session as it might not have a suitable result, except for filling the classes. Roll call can be used as an encouragement strategy when instead of giving negative points to absent students, an encouraging point is granted to students who are present (14). In a study by Nazari Vanani et al., students did not show interest in roll calls, and 61% of students mentioned roll call as a factor that forced them to attend the classroom (20). Although quizzes can have a positive effect on student attendance in the classroom, they should not be used only as a tool to control students' attendance as it creates negative feelings and stress in

students, lowering their learning quality. Tariq et al. showed that students welcome quizzes if they receive feedback (25, 26). Seraji believes that the learning culture in Iran is teacher-centered and emphasizes evaluating, grading, and ranking students, leaving out criticism, observing the power distance between students and teachers, and respect for professors (27). Faculty members should provide a learning environment where students become interested in attending class, identify factors that motivate students to attend classes, and use strategies to create attractiveness in their teaching methods (28-32). One study showed that the average scores of strategies to reduce absenteeism from the classroom, in order of importance, were the professor's mastery of the teaching material, attention to student learning, good manners of the teacher, respectful behavior with students, cheerfulness of the class atmosphere, practical and attractive method of teaching, emphasizing student attendance, using various methods and new content in teaching, answering students' questions correctly, and continuous evaluation (33).

Academic progress and the prevention of academic decline are closely related to the presence of students in the classroom, and many factors affect it. Therefore, it is necessary to face this challenge by informing faculty members about the essential effect of the role and teaching style of the professor on attendance in the classroom and providing incentives for students to attend the classroom. If a classroom is a place for socializing and strengthening relationships with other students, a platform for intellectual discussion and challenges, and an environment to learn reasoning and critical thinking, attendance is essential (14).

#### **4-1. Study Limitations**

This study used the available sampling method. Therefore, only the students who

participated in the educational workshop completed the questionnaire, and the results cannot be generalized to all students of health, pharmacy, and nursing and midwifery faculties.

#### **5- CONCLUSION**

The academic progress of students and the prevention of academic decline are closely related to the presence of students in the classroom. The results of this study showed that from the students' perspective, the primary factors affecting attendance in the classrooms are factors related to the professor (competence, correct and logical organization of the material, friendliness, and cheerfulness of the class atmosphere), evaluation system (approaching the exam days, and coordinating class sessions with the end-of-semester exams), and the student (the personal interest of the student in the course subject, connection of the specialized field with the content of the session, positive view of the higher year students). The lowest mean score was related to the physical conditions of the classroom (facilities and conditions, crowdedness, and the number of students). It is suggested to create incentives for students to attend classrooms by assigning parts of classroom training to the students and including students' presentations in the teaching method. Also, it is recommended to conduct similar research (quantitative and qualitative) and seek the students' opinions on how to improve the quality of classrooms in different universities.

#### **6- AUTHORS' CONTRIBUTIONS**

Study conception or design: MV and MA; Data analyzing and draft manuscript preparation: BZ, SP, and SN; Critical revision of the paper: MA; Supervision of the research: MV and MA; Final approval of the version to be published: MV, BZ, SP, SN, and MA.

**7- CONFLICT OF INTEREST:** None.

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