



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3582006>Available online at: <http://www.iajps.com>

Research Article

CORRELATION OF CLASS ATTENDANCE AND ACADEMIC GRADES¹Nubair Sarwar, ²Zainab Rasheed, ³Mahnoor Rafique Butt¹ Ayub Teaching Hospital, Abbottabad, ² Rawalpindi Medical University, ³ Nawaz Sharif Medical College, Gujrat.**Article Received:** October 2019 **Accepted:** November 2019 **Published:** December 2019**Abstract:**

Objectives: To assess the importance of class attendance of pre-clinical medical students by comparing it with their results in annual university examination.

Methodology: This cross sectional study was conducted at Ayub Medical College, Pakistan during December 2018 to June 2019. Undergraduate Medical students were enrolled in the study and asked to fill out a questionnaire to assess the different reasons why medical students tend to be absent from lectures, their views regarding content and quality of lectures. Stratified random technique was applied for sampling. Data was analyzed by SPSS version 16.0, Chi-square test and Pearson's r test were applied.

Results: Correlation between class attendance and grades was analyzed and found to be significant but weak positive ($r=0.284$, $p=0.000$).

Conclusion: There are various reasons for absenteeism from lectures including timing of the lectures and preference for self-study. These need to be rectified in order to strengthen the learning process in medical undergraduates.

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Please cite this article in press Nubair Sarwar et al., *Correlation Of Class Attendance And Academic Grades.*, Indo Am. J. P. Sci, 2019; 06(12).

INTRODUCTION:

Aim of the undergraduate medical education is to produce competent and decorous professional doctors with adequate medical knowledge, affective attitude for the patients and befitting clinical skills for practice. In order to educate the undergraduate students systematized lecture, tutorial, practical and clinical classes are arranged by the different government and nongovernment medical colleges for a specified duration following the undergraduate medical curriculum which is prepared and recommended by Pakistan Medical and Dental Council. So, to attend the classes regularly is mandatory and also very much facilitative for medical student to get a proper and clear idea about the subjects of discussion as per course curriculum, which is essential for the appreciable academic performance in the examination. [1]

Students' attendance in lectures is one of the most discussed topics in all educational institution. A study by (Alghamdi et al., 2016) and his team have explored some of the causes for absenteeism and they highlighted that unfavorable teaching strategies, preparation for examinations, early-morning classes are the main reasons why empty chairs are seen in classroom. [2]

It is assumed that a student should be present mentally and physically in classroom in order to learn and understand the lesson being taught. However, with advances in technology, students have come up with new and versatile ideas of learning which relieves them from the compulsion of being present in classroom, visiting a library, or even being in the presence of the friends they are communicating with. This give rise to a question that, is classroom attendance is optional for today's student, who is used to accessing information electronically. [3]

Another aspect of this topic was studied by Cortright R who highlighted this issue among female-female and female-male students and their interest for seeking knowledge. It was found that impact of regular attendance on final performance is more important for female students than male students. Female students scoring more than average grades had attended more classes than female students with grades below average. Male students were far behind their fellow female student in attendance as well as in exam grades. [4]

Medical Students' absenteeism in class is related to many factors including student and faculty attitudes about learning, class & examination schedule, quality of teaching materials, assessment methods, online

medical learning resources, educational environment of the class, health & lifestyle-related pressures, and the overall health of the learner-facilitator relationship. [1]

A study suggested that there exists some relation between student attendance and enforced policies by universities and colleges. And these policies were termed as contributable factors effecting students attendance. [5]

So to accomplish the goal this study is being conducted and data will be collected from First and Second Year MBBS (Pre-Clinical) undergraduate students of Ayub Medical College (AMC) Abbottabad, Pakistan with the objective to determine the relationship between academic performance and class attendance and also to find out the possible reasons of absenteeism in the class.

METHODS AND MATERIALS:

Study Design: This is a Cross Sectional study, which measure the strength of the relationship between student class attendance and examination achievement.

Setting: Ayub Medical College, Abbottabad.

Participants: Undergraduate students of Ayub Medical College.

Sample: The sample included 296 undergraduate students.

Sampling Technique: Stratified Random technique was applied to select the participants. Random sampling technique is a technique that is used to select sample without bias from the target accessible population. This technique ensures that each member of the target population has an equal and independent chance of being included in the sample that might increase the reliability of the findings.

Data Collection Procedure: A self- administered, structured questionnaire was used to collect data.

Data analysis: Data was entered and cleaned in SPSS 16 statistical package and presented in the form of tables and graphs. Descriptive statistics was used in the forms of numbers and percentages. Data was further analyzed using Pearson Correlation and chi-square tests, with p value ≤ 0.05 was used as the cut off point for statistical significance.

RESULTS:

This study was carried out at Ayub Medical College Abbottabad from December 2018 to June 2019 and a total of 296 undergraduate students were enrolled. The participants were from Second year to Fourth year MBBS, which included 189 (63.9%) males and females 107 (36.1 %). Recorded Mean average sleep (hours) was 6.593 ± 1.5781 with range from 2-12, Mean marks in percentage were 66.65 ± 5.754 with range 52-84, annual attendance percentage mean is 81.09 ± 12.224 with range 0-98. Out of 296 participants there are 78 (26.4%) from second year, 61 (20.6%) from third year, 88 (29.7%) from fourth year and 69 (23.3%) from final year. The residence of students enrolled in the research study. Out of 296, 50 students (16.9%) were day scholars and 246 (83.1%) were hostelites. Out of the total 296 students on which the study was conducted 65 (22%) daily miss their first lecture, 58 (19.6%) once a week, 54 (18.2%) twice a week, 42 (14.2%) three times a week, 22 (7.4%) four times a week and 55 (18.6%) never miss their first lecture. Out of the 296 students 215 (72.6%) agreed that mandatory attendance is the main motivation factor for them to go to the college whereas 38 (12.8%) suggested that the teaching method of the instructor affects their attendance in class, while 31 (10.5) voted that their interest in a particular subject is responsible for their presence in the lecture. Out of total 296 students 90 (25%) thinks that their college environment is exciting and the remaining 206 (75%) finds it boring. Out of total 296, 121 (40.9%) agreed to the fact that their attendance does affect their performance in exam whereas the remaining 175 (59.1%) disagreed. Out of 296 students 94 (31.8%) agreed that frequent class assessments will have beneficial effect on their grades in the final exam whereas 202 (68.2%) disagreed. Out of 296 students 44 (14.9%) agreed that PowerPoint method of presenting the lecture is best for understanding, 79 (26.7%) of the students understand better when the lecture is presented by hand written white board illustrations, 54 (18.2%) students think that group discussion as a convenient method of learning, 111 (37.5%) of the students preferred interactive sessions as a rewarding method of learning, and 8 (2.7%) choose other methods. Out of 296 students 218 (73.6%) agreed that conscious effort of the students will improve their exam performance whereas 78 (26.4%) disagreed. Out of 296 students, 265 (89.5%) agreed that a more interesting college environment will increase the attendance of the students, 31 (10.5%) disagreed.

DISCUSSION:

Education is certainly the supreme instrument and is devised by man for his own progress. Therefore all

societies get education in one form or the other but the use in which it is put varies. Over the years, the investigation of the factors that influence academic performance of students have attracted the interest and concern of teachers, researchers and school administrators

Professional courses like medical education require high attendance in theory and practical classes for better understanding of the subject and for acquiring skills for better performance in their later career life. Literature review suggests that absence in class affects their academic performance which is found to be directly related.

The objective of this study was to quantify the relationship between the student's class attendance and academic performance.

Our study revealed positive correlation between class attendance and academic grades of undergraduate medical students. The results were statistically significant. This is in keeping with the studies elsewhere round the globe. However the strength of association was moderate (0.284) which is comparable to studies by Marburger (2006)⁸ and Chamberlain (2012) [9].

Previous studies of medical and other health professional students have also shown a positive but weak correlation between student attendance and academic performance. [25]

The two most common reasons for not attending the lectures were giving preference to self-study over attending lectures (38.9%) and poor teaching style by lecturers (12.8%).

Lectures are one of the important ways of teaching in most of the universities in traditional system as well as modular system. It must be the ability of the teacher to create interest of all students in a single classroom so that they should not lose their concentration and interest. Poor lectures can leave students uninterested and frustrated rather than encouraging them. The lecturers should connect the lectures' contents to their students' former knowledge and relate it to real life examples, thus making the information more evocative. Teachers should improve lecture presentation strategy to improve the attendance of class. It should include illustrative presentation, adding videos, and question answer sessions to enhance the interest of students in attending lectures as according to our study 37.5% of the population favored student teacher interactive sessions while 26.7% opted for white board

presentations which engages student towards the teacher lecture.

Nowadays almost all students are equipped with new technology devices such as laptops and smart phones. Digital technologies have heightened the process of learning through the use of digital audio and video recordings that can be circulated across the internet directly to students' desktops. In our study, 27.7% students agree that they can download uploaded lectures from different websites any time. [26]

Billings-Gagliardi et al [27] studied the student decisions regarding lecture attendance and they reported that presence of electronic learning materials will not affect the lecture attendance if the students think that the lecture content will contribute in their learning.

The finding of this study also reveals that 79.1% students whose attendances was above 75% actually had good annual performance, out of which 75.1% had better grades and the rest 4% scored satisfactory. While on the contrary 20.9% of the students had attendance below 75%, out of which only 17.3% managed to attain good grades while the remaining 3.7% had satisfactory grades. These results may support the hypothesis that implementation of an attendance policy improves exam performance but this also need to be backed up by solid grounds on the basis of further researches as a study by Marburger observed a fall in attendance from 85% to about 76% when mandatory attendance policy was removed. [28]

In our study, 54.6% students feel that they can pass exams without attending the lectures but the rest 45.6% think that to pass exams, its essential to hear all lectures very carefully, as most of the examination paper comes from the lecture content.

Our results are in contrast to some of the other studies [11,12,13] which showed stronger correlations between the two variables. This study also predicts that female students are more punctual regarding attending their lectures as compared to their male colleagues. According to the study 28.57% of males students have attendance below 75% while rest 71.42% students have attendances 75% or greater. On the contrary, only 6.5% of the female participants have attendances below 75% and the rest 93.45% of female students from the sample have attendance 75% or above.

Also according to our study 83.10% of students were living in college hostels while the remaining 16.89%

were day scholars. It is relatable that homesickness and other health issues may have contributed to the absenteeism of the student as a study found that large number of students (63.1%) reported health related issues as a cause of absenteeism but there was no difference among the genders [29].

Also it was identified that among other reasons, peer pressure and advice by immediate senior medical students not to attend lectures was significant factor for poor class attendance. [30]

CONCLUSIONS:

This study proved that a positive correlation exists between academic performance and class attendance of medical students. Problem of absenteeism is increasing nowadays in medical students. There are multiple factors of absenteeism including bad construction of the lectures and preferring self-study over taking lectures.

Recommendations:

Classroom attendance has definitive but weak correlation with performance in annual examination in modern era. Therefore, even though the students should be encouraged to attend the classes regularly, its weight as a criterion for admission should be re-evaluated against the performance in exams. All stakeholders including teachers, students, administration and parents must focus to minimize absenteeism.

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