

**CLASSROOM ATTENDANCE AND ACADEMIC PERFORMANCE OF
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ABSTRACT

Attendance in didactic lecture classes in Biochemistry of 276 students of Midnapore Medical College was studied along with their marks in Biochemistry in 1st Professional MBBS examination. The statistical analysis shows a positive correlation among classroom attendance and university marks. The regression analysis also reflects that university mark is dependent on theory class attendance. Hence a well prepared lecture class is very important method of teaching Biochemistry in medical colleges.

KEYWORDS: Didactic lecture; biochemistry theory; absenteeism.**INTRODUCTION**

Didactic lecture is one of the important formats of teaching Biochemistry in the undergraduate colleges of West Bengal. However, absenteeism is not uncommon in these lecture classes. Literature review shows a positive correlation of absenteeism and underachievement. Studies by Riggs and Blanco^[1] showed a negative correlation between lecture absenteeism & Obstetrics & Gynecology examination. Similar finding was reported by Dhaliwal^[2] in Ophthalmology examination. Hammer and Kelland^[3] showed weak positive correlation between attendance and grades in Physiology. But no such study has been reported from West Bengal.

Hence this study was undertaken to find out the relationship of theory class attendance of students and their performance in theory paper of Biochemistry in 1st MBBS examination among students of Midnapore Medical College.

A total of 100 students get admitted each Year in Midnapore Medical College, which is affiliated to West Bengal University of Health Sciences. The college conducts 2 semester examinations and continuous assessment examinations from which 20 marks are sent to University as internal assessment mark. The University conducts 1st Professional MBBS examination each year where 2 theory papers, each containing 50 marks are set. Students also have to appear a 20 mark viva examination. Thus a student's theoretical knowledge is assessed out of 140 marks. In this study, the mark obtained out of 140 is considered only. The mark in Practical examination is not considered in this study.

MATERIALS AND METHODS

Students of Midnapore Medical College of 3 consecutive years, who were admitted in the year 2006, 2007 and 2008 and appeared in the university examination in the year 2007, 2008, & 2009 respectively, were included in the study.

The students who could not appear in the scheduled university examination due to physical illness or some family problem were excluded from the study. The unsuccessful students of previous year were not included in this study.

The attendance of study population in theory classes of Biochemistry was collected from the attendance register of Biochemistry Department. The mark obtained by them out of 140 (in theory, oral, internal assessment) was recorded from record section of office register.

Data have been tabulated and analysed statistically by calculating correlation coefficient and regression analysis (ANOVA) using Microsoft Excel (office 2007). A value of $p < 0.05$ was considered as statistically significant.

RESULTS AND DISCUSSION

The study includes a total of 276 students admitted in the years 2006, 2007 and 2008 in Midnapore Medical College. Among them 95 students (80 male and 15 female) belong to the year 2006, 91 students (58 male, 33 female) belong to the year 2007 and 90 students (45 male, 45 female) belong to the year 2008. Table I shows the result of analysis. An overall

correlation coefficient of 0.20 was observed which shows a positive correlation of theory attendance and university marks. Better correlation was observed in case of male students than female students (0.47 vs 0.23 in 2006; 0.35 vs 0.15 in 2007; 0.40 vs 0.27 in 2008). This may be due to a substantial number of male students in comparison to female students.

Regression analysis also shows that values are significant in case of male students. Though values were insignificant in case of female students of all three years, analysis of overall data of theory attendance and university marks gives a significant value. Thus regression analysis implies that university mark is dependant on theory class attendance.

It has been reported that well organised and carefully presented lectures provide an up to date view of the subject.^[4] They are invaluable for imparting in depth knowledge to the entire group of learners at one go, thus save time and resources. Since the entire class is exposed to a single teacher, uniformity of the teaching experience is ensured. However, the learner must be physically present and mentally receptive.^[4] A study conducted among 1st year medical students of Pakistan by Khan HU et al^[5] also reported that class attendance during teaching session favorably affect the knowledge evaluation. According to Dhaliwal U,^[2] learner absenteeism may contribute to low achievement, whereas absenteeism may be symptomatic of low achievers.

In this study the variation of correlation pattern may be explained by the fact that irregular students are always not reluctant in studies. They often purposefully miss the class for better preparation of the examination. Internet-based study and help in study outside the class room often strengthen their learning process.

On the other hand, students present regularly in class are not always sincere in the studies. They may get involved in activities other than studies.

However, our finding is in accordance with the previous finding showing a positive correlation between class attendance and academic performance.

Under achievement assumes critical importance for medical care providers who are involved in decision making in life & death situation. Attempts should be made to identify the regular absentee and find out the causes of his/her absenteeism. It seems to be important to monitor the attendance of these students & encourage them to attend the classes regularly.

Table 1: Correlation Coefficient of theory attendance (%) and university marks (%) in study population along their significance by regression analysis.

Study Population	2006		2007		2008		Total
	Male	Female	Male	Female	Male	Female	
Number of students	80	15	58	33	45	45	276
Correlation coefficient (r)	0.47	0.23	0.35	0.15	0.40	0.27	0.20
Regression significance (F) by ANOVA	0.00	0.41	0.01	0.41	0.07	0.00	-

SUMMARY AND CONCLUSION

The result of this study shows that classical didactic model of teaching is helpful for the students. The attendance in class has a direct impact on the examination results. However, this was a small scale study. Collection of additional data which can act as confounding factors, like availability of well established laboratory, computer assisted learning facilities, utilization of teaching aids, teaching skill of teachers, previous academic record of the individual students could have contributed to greater strength and depth to conclusion to this study. Data taken from other medical institutes can also provide new light to this study.

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