

## EVALUATION OF ABSENTEEISM IN CASE BASED LEARNING SESSIONS

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### ABSTRACT

**Objective:** To observe the association of total absenteeism and the CBL absenteeism among the undergraduate medical students.

**Study Design:** A cross sectional study.

**Place and Duration of Study:** Army Medical College and study was conducted in the month of June 2016.

**Material and Methods:** This cross sectional study was conducted in the month of June 2016 among the Second MBBS course at the Army Medical College. Two hundred second year M.B.B.S. students were informed and invited to participate in the study. We gathered the information from the students on total number of CBL attended in the whole academic year, reason for missing Anatomy CBL, causes for absenteeism, annual total attendance percentage of the second year class, number of pass CBL sessions in second year. Suggestions for the improvement of the Anatomy CBL sessions were also recorded.

**Results:** Out of 173 participants, there were 101 (58.4%) male and 72 (41.6%) female students with the mean age of  $20.01 \pm 0.69$  years. There were 84 (48.6%) medical cadets, 12 (6.9%) paying cadets, 21 (12.1%) additional selected cadets, 46 (26.6%) NUMS cadets and 10 (5.8%) NUMS foreign cadets. Mean CBL attendance was  $13.09 \pm 1.87$  with the range of 6-15. Mean attendance of classes other than CBL was  $92.40 \pm 6.55$ . The difference of CBL attendance between various categories of cadets was insignificant ( $p$ -value=0.18). Also, there was no effect of gender on the CBL attendance ( $p$ -value=0.10).

**Conclusion:** Frequency of students with attendance in CBL sessions below 75% is significantly different than the frequency of students with attendance above 75%. This is an alarming finding as the cut off point for appearing in annual exam set by PMDC is 75% attendance.

**Keywords:** Absenteeism, Feedback, Student.

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## INTRODUCTION

Adult learning is different and complex as compared to conventional education and learning<sup>1</sup>. Maintaining interest in the program for its entire duration is a challenge for the organizers as well as the participants.

To assume leadership roles as Medical Educationists, will not only require resilience in the face of stagnation and inertia, but at times also need them to be able to handle conflict and opposition<sup>2</sup>.

Medical colleges in Pakistan including Army medical college, have clear guidelines regarding mandatory attendance during lectures and case

based learning sessions. Despite the firm rules, absenteeism is unavoidable problem in learning institutes<sup>3</sup>.

Absenteeism has been shown to be a tester of low level of motivation for learning among students<sup>4</sup> Multiple studies have identified a linkage between the absenteeism and lack of subject matter interest, underprivileged teaching strategies, poor learning environment<sup>4,5</sup>. In addition, accessibility of lecture content in the form of online slides, videos, audios have their own contribution to absenteeism<sup>5</sup>. Pull factors pulling barriers in the way to learning are reported as clinical involvement, family issues, health issues such as seasonal allergies & asthma and engagement in social issues. Potential obstacles set up by hostility at work place and perfectionist attitude can also be the demotivating factors. Push factors pushing

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barriers towards the path of learning are identified as self-motivation due to passion for learning & teaching, family support, facilitating administration, encouraging head of department, ability to multi task, external motivation by senior colleagues in medical education, time management and prioritization<sup>5,6</sup>. The environment plays a vital role in medical education. In order to derive maximum benefit from an educational activity the environment must be congenial<sup>6</sup>.

Hectic schedule and long working hours of the classes results in monotony and tiredness among the medical students. Covering of an important topic by newly inducted faculty members results in loss of enthusiasm in the beginner learners. Complex topics touched superficially also result in frustration due to lack in understanding. Since self-directed Learning is unstructured and independent, it is easy for students to become distracted or unproductive. This will have to be addressed vigilantly by the participants as well as the organizers, so that everyone remains goal oriented, especially as the case base learning has a relatively huge learning component

Although a lot of course material for the case base learning has been given to participants, theory is not the best way to aid in understanding or explaining change and new experiences. Failure to sustain the participants enthusiasm and motivation is a possibility that all need to beware of.

Student absenteeism is a major concern for university education worldwide. This study was conducted to evaluate absenteeism among undergraduate medical students during case based learning sessions at Army Medical College Rawalpindi.

## **MATERIAL AND METHODS**

This cross sectional analytical study was conducted in June 2016 after getting formal approval from the Ethical Review Committee of the Institution. Two hundred second year M.B.B.S. students of Army Medical College,

Rawalpindi were included after getting written informed consent.

The participation in the study was on voluntary basis. A pre tested and self-administered questionnaire was given to the students after explaining details about its various contents.

Students own perception and views about absenteeism for CBL sessions of Anatomy were incorporated in the questionnaire. Attendance from their departmental progress cards was also considered for this study. We gathered the information from the students on total number of CBL attended in the whole academic year, reason for missing Anatomy CBL, causes for absentees, annual total attendance percentage of the second year class, number of pass CBL sessions in second year and suggestions for the improvement of the Anatomy CBL sessions were also asked.

Data were analyzed using SPSS version 23. Frequency and percentage were calculated for categorical variables whereas mean and standard deviation for numerical variables. Frequency of students absenting CBL sessions was compared using Binomial test. Pearson correlation was computed between attendance of CBL and that of classes other than CBL. Effect of gender on absenteeism in CBL was calculated using independent t test. Alpha value was kept at 0.05.

## **RESULTS**

Out of 173 participants, there were 101 (58.4%) male and 72 (41.6%) female students with the mean age of  $20.01 \pm 0.69$  years. Mean CBL attendance was  $13.09 \pm 1.87$  with the range of 6-15. Frequency and percentage of students along with CBL sessions attended in the whole academic year are shown in table-I.

High percentage of students have attendance in CBL sessions below 75%. These students cannot appear in annual exam as 75% attendance is the cut off value set by PMDC to appear in annual examination (table-II).

Mean attendance of classes other than CBL was  $92.40 \pm 6.55$ . Table-III shows correlation between attendance in CBL sessions and that of

classes other than CBL. There is positive correlation between the two variables at a  $p$ -value of  $<0.001$ . There is no significant difference of CBL attendance between males and females ( $p$ -value $>0.05$ ) (table-IV). Major reason of absence is schedule (table-V).

## DISCUSSION

Attendance plays an integral part in the overall performance of students and their absenteeism leads to a breach in the learning process<sup>7</sup>. According to the results of this study, students faced difficulties with respect to the schedule and conduct of case based learning.

improve attendance<sup>4</sup>. According to opinions of students on the effect of absenteeism on their academic performance, most of the students were of the belief that their absences did not affect their grades in any way.

High percentage of students have attendance in CBL sessions below 75%. These students cannot appear in annual exam as 75% attendance is the cut off value set by PMDC to appear in annual examination. This problem identified previously needs to be dealt with interventions in the entire educational cycle which includes instructional strategies aimed at invigorating

**Table-I: Frequency and percentage of students with their attendance of CBL sessions in the whole academic year.**

CBL sessions attended	Percent attendance	Frequency	Percent of total class
6	40.0	1	0.6
7	46.7	2	1.2
8	53.3	1	0.6
9	60.0	4	2.3
10	66.7	7	4.0
11	73.3	18	10.4
12	80.0	22	12.7
13	86.7	33	19.1
14	93.3	35	20.2
15	100.0	50	28.9

**Table-II: Frequency comparison of attendance below 75% and equal to or above 75% in CBL sessions.**

Attendance groups	Frequency (%)	95% confidence interval (%)
75% and above	158 (91.3%)	86.1-95.1
Below 75%	15 (8.7%)	4.9-13.9

**Table-III: Correlation between attendance in CBL sessions and classes other than CBL.**

Attendance variables	r-value	p-value
CBL	0.59	$<0.001$
Classes other than CBL		

Students reported that these sessions did not follow a proper protocol and that lectures based sessions were not encouraged. According to a similar study conducted in Medical colleges of Tripura state, the unsatisfactory method of teaching was highlighted as one of the important reason of absenteeism. Along with this other reasons include poor understanding of the subject by students and quality of lecture as perceived by students in various other studies. Adequate training of the teaching staff with regard to teaching methodologies has shown to

the theoretical knowledge, maximizing class participation and devising an environment of interactive learning thus sharpening the working memory of students which help them to absorb more and retain it in their long term memory. There is a need of a well-defined teaching methodology which is at par with a set of clearly defined objectives. There is an established role of trained medical educationists rather than subject specialists in the given matter. Disapproval for the way of teaching and lack of understanding due to improper guidance in the subject was also

a contributing factor for absenteeism as observed in Desalegn *et al*<sup>7</sup>.

A Study, found that the major reasons given by students for non-attendance at lectures were poor lecturing (23%), timing of the lecture (23%) and poor quality of the lecture content (9%)<sup>8</sup>. Contributing to the same issue, Teasley (2004) also assets that students that have poor or conflicting relationships with teachers will avoid school in order to avoid their teachers<sup>9</sup>.

Lack of motivation resulted in reduced attendance at the (Case Based Learning) CBLs, which is influenced by the attitude of moderators or instructors. Various other factors influencing the attendance in the CBLs include work commitments of students elsewhere, work stress and low self-confidence. It is the responsibility of the instructor to create a conducive learning

own learning, this can sharpen their skill of critical reflection. The study reflected that many students expressed that sickness is also one of the reasons for absenteeism. Similarly, students are forced to miss lectures/CBLs due to unforeseen events like illness, death of a close relative or some other domestic issue. A strong positive interdependence was seen between attendance in CBL sessions and classes other than CBL. Thus, even though students with low self-esteem attended lectures frequently, it was not the case with the CBLs.

Among our study population, lack of interest in the subject matter was reported as a reason for non-attendance. This could be accredited to two reasons: 1) the probability that a major part of medical science students is enrolled in this field against their will; 2) even though medical

**Table-IV: Comparison of CBL attendance across between the two genders.**

Grouping variable	Category	Mean ± SD	p-value
Gender	Male	12.92 ± 1.89	0.10
	Female	13.33 ± 1.81	

**Table-V: Frequency and percentage of various reasons leading to absenteeism in CBL sessions.**

Reasons for being absent from CBL	Frequency	Percentage
CBL schedule inconvenience	85	49.1
The sessions do not need teacher’s guidance	11	6.4
Lack of interest to the session	20	11.6
Do not like teachers teaching style	23	13.3
Sessions were not well conducted by the facilitators	34	19.7

environment, where the students feel comfortable and confident expressing themselves<sup>10</sup>. The teachers should involve their students by taking their input on while planning relevant methods, curricular content and diagnose their needs. Such initiatives will in turn helps to stimulate their internal motivation.

The students should be encouraged to formulate their own learning objectives; this gives them a sense of control over their learning. A system should be put in place which shall help learners to identify resources and come up with different strategies for using these resources to fulfill their desired learning objectives<sup>11</sup>. Training programs should help the learners in carrying out their learning plans in order to evaluate their

students chose to be in this field, they may find the curriculum more tough and demanding. A regular school attendance is shown to be a significant part of school success. There has been an established association between good attendance and student performance while poor attendance has been linked to poor academic achievement<sup>12</sup>. The academic program also influences whether students attend school. There is a growing body of research that suggests that school culture influences student learning, engagement, and achievement<sup>11</sup> Researchers note that disengagement can lead to a significant increase in 'deviant behavior'-including truancy. Students who perceive teachers as creating a caring, well-structured learning environment in

which expectations are high, clear, and fair are more likely to report engagement in school". Higher-levels of student engagement reduce the risk of students missing school or dropping out of school<sup>13</sup>. This perception can be achieved through lower student-to-teacher ratios as well as other college based programs that increase student-teacher contact through mentoring.

In the modern schooling system, lectures are arranged in accordance with a set pattern and absences causes disruption in the learning process and thereby lead to confusion and distress for the students as they miss the high yield learning objectives which are primarily focused on in the earlier sessions. This creates misconceptions and ambiguities regarding the subject<sup>14</sup>. Traditionally, undergraduate medical basic science curricula are taught using a lecture format. However, for a variety of reasons, lectures do not foster critical thinking or student engagement, and there is little research to indicate that sustained learning occurs as a result of this teaching strategy<sup>15</sup>. Our data suggests that CBL may be a viable teaching methodology that allows students to apply their knowledge with peers. The prevalence of absenteeism and associated risk factors at Hawassa University College of Medicine and Health Sciences were consistent with finding from three South African universities. Studies indicate that absenteeism from lectures and tutorials is a growing trend<sup>16</sup>. Additionally, students with low motivation are more likely to engage in social drug use. Low motivation to learn was significantly associated with being absent in more lectures. Contrary to other studies, we didn't find a clear and significant association between absenteeism and academic achievement among the study participants.

The type of our study design is the prime limitation in addressing the issue of student absenteeism. This is a descriptive cross-sectional study with including a qualitative component; thereby it does succeed in acquiring the detailed data necessary to establish causality between absenteeism and its predictors.

## CONCLUSION

Frequency of students with attendance in CBL sessions below 75% is significantly different than the frequency of students with attendance above 75%. This is an alarming finding as the cut off point for appearing in annual exam set by PMDC is 75% attendance.

Direct correlation of attendance in CBL sessions with classes other than CBL makes the situation even worse. Measures need to be taken to control absenteeism in CBL sessions especially in the light of causes highlighted by the students in the current study.

## RECOMMENDATIONS

Case based learning sessions should be planned in the morning time.

One session of CBL should be planned in a week. Faculty should be trained for CBL sessions. Resources should be provided for the learning material.

## CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

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