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Perception of dental faculty and student regarding class attendance and final performance

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Abstract:

AIM: The aim of this study was to assess the impact of lecture attendance on the academic performance of 3rd BDS students at the DMIMS-U, Sawangi (M), Wardha. This project investigated and correlated the difference between faculty and student perceptions regarding attendance and final performance, including factors thought to influence student attendance.

MATERIALS AND METHODS: Participants from a single university were included in the present retrospective observational study. The study was conducted in April 2016; 77 3rd BDS students (2012 Batch) and teaching staff of SPDC willing to voluntarily participate were included and divided into two groups such as Group A and Group B. Student and faculty perceptions were obtained using Likert scale having 15 closed-ended and 3 open-ended questions. Questioner was made related to factors affecting the attendance in class, type of source available for study, awareness about topic, and faculty approach. Comparison between perception of students and faculty regarding attendance and final performance was done using Mann-Whitney U-test. $P < 0.05$ was considered statistically significant.

RESULTS: Quantitative analyses revealed significant differences between faculty and student perceptions on most of the project variables. Qualitative analyses reinforced those findings and suggested that faculty misunderstood what factors actually influence student attendance. The results suggest that there is a substantial disconnect between faculty and student perceptions regarding the importance of class attendance and highlighted areas for faculty to influence student attendance.

CONCLUSION: Motivation is the major factor causing students to attend the lectures. Unfortunately, not all students are motivated to study and learn. New styles of teaching may need to be looked into. This needs to be further investigated on large sample size.

Keywords:

Attendance, faculty-student differences, final performance, perceptions

Introduction

When substantial number of students does not attend, classroom learning is depreciated, student and teacher morale suffer, and academic standards are compromised.^[1] Student classroom attendances are a popular topic of both empirical research and faculty discussions.^[2-5] Both the research and the discussions focus

on the central question: Why do not students attend every class? Although faculty perceptions are based on their own idiosyncratic experiences in the classroom, those perceptions are validated for the present study.

As educators, many university faculties are rightfully concerned about student absences since substantial empirical research, and their own experiences have demonstrated that attendance is related to student performance

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and grades, even in courses where attendance is not a part of the grading system.^[6,7] Marburger in 2001 documented that missing a class period increased the probability of responding incorrectly to an examination question.^[8]

Evidence of the factors that influence student attendance supports this common perspective. Students are more likely to attend class: if they consider the material or instructor interesting,^[4] if in-class quizzes are announced,^[9] if attendance is required for their grade, and if there are direct consequences for absenteeism.^[2-4] Students are less likely to attend class if attendance is not required, especially later in the semester;^[9,10] if they are assigned to larger classrooms versus smaller classroom settings, where they perceive their absence will not be as noticeable;^[2,8] if they perceive a negative effect on their attendance likelihood if given full notes for the class period by the instructor;^[11] or if they believe that regular attendance should be factored in to final grades.^[12] Moore *et al.* in 2008 reported that only 17% of students' classroom absences can be categorized as potentially excused (e.g., medical emergencies); 23% were related to giving higher priority to academic work in other classes (e.g., cutting class to study for another test), and 60% were related to low intrinsic motivation (e.g., too tired and class is boring).^[13] Potential reasons suggested for this pattern were course level, course size, and five specific student perceptions.

These perceptions are that students believe: (a) nothing important will be covered during that period; (b) no effort is required before studying for the next examination; (c) class attendance will not affect their final grades, especially in classes where attendance is not recorded; (d) missing this particular class will not change their grade on their next test; and (e) attendance has no correlation to how much they learn in a course. According to the literature reviewed above, all of these misperceptions are common.^[5]

The reasons that many faculties are concerned about this absenteeism are threefold. First, it is a symptom of larger absenteeism throughout the course, which prior research has documented leads to poor academic performance. Second, because of their awareness of the connection between attendance and performance, many faculties expend considerable time and effort attempting to increase student attendance to maximize student success. Third, specifically related to these unique class periods, many faculties use those course periods to either review examinations or introduce the foundation for new units in the course. Both of those uses can disproportionately influence student learning in the course in comparison to many other course days, so absenteeism on those days can pose an even greater threat to student learning.^[14]

Class attendance has long been subject of debates while measuring performance in examinations. Faculty has own perception, and student has their own perception regarding important of attendance for performance in final examination. Attendance at classes has traditionally been thought to be a prerequisite to good academic performance. Some studies have shown that there is a positive correlation between attendance and academic performance. Khan *et al.* have shown that there is a positive correlation between attendance and academic performance. In addition, several sources show a relatively consistent relationship between attendance and grades, regardless of the course subject or level of student. It is not only the improved the final result but knowledge and skill is also directly depends on learners presence in class, practical or clinic.^[15-17]

It is argued that attendance policy goes beyond just "filling seats," by mandating student-faculty interactions which are a critical aspect to facilitate learning.^[18] The determination of students' academic performance is an important issue in medical profession. Proponents advocate that there is a direct relationship between these two variables and there has been prolific literature in this direction. The study was done to assess the impact of lecture attendance on the academic performance.^[19]

Materials and Methods

The retrospective observational study was conducted in the year of 2016, after obtaining the prior approval from the Institutional Ethical Committee (DMIMS (DU)/IEC/2016-17/1530-A).

Sample size

Seventy-seven 3rd BDS students (2012 Batch) and teaching staff of SPDC willing to voluntarily participate in the study.

Group A

Student perception was obtained using Likert scale having 15 closed-ended and 3 open-ended questions.

Group B

Dental faculty perception was obtained using Likert scale having 17 closed-ended and 4 open-ended questions.

Inclusion criteria

All students of 3rd BDS (2012 Batch) willing to voluntarily participate were included in the study.

Exclusion criteria

Students who were absent or not willing to voluntarily participate were excluded from the study.

Duration of study

The total study duration was 6 months.

This project investigated and correlated the difference between faculty and student perceptions regarding attendance and final performance, including factors thought to influence student attendance. Informed consent was taken from all 80 students of 3rd BDS students and teaching staff enrolled for this study.

Student perception regarding relation of attendance with performance was obtained using Likert scale; perception questionnaire consists of 14 closed-ended and 3 open-ended questions, and perception of dental faculty regarding correlation of attendance with performance was also obtained on Likert scale having 17 closed-ended and 4 open-ended questions.

Data analysis was done to find out the relation between student and faculty perceptions regarding attendance and final performance. Comparison between perception of students and faculty regarding attendance and final performance was done using Mann–Whitney U-test. $P < 0.05$ was considered statistically significant.

Results and Observation

All the data are collected from student and faculty and tabulated in Tables 1 and 2. Comparison between perception of students and faculty regarding attendance and final performance was done using Mann–Whitney

U-test. $P < 0.05$ was considered as statistically significant and tabulated in Table 3.

A total of 14 questions were asked to student and faculty; after data analysis, we found that for most of question that there is significant difference between student and faculty aspect for 4–5 questions.

Analysis of open-ended questions

Responses to open-ended questions were analyzed qualitatively. Table 1

Discussion

Literature suggests that attendance and academic performance are directly correlated, with some studies showing a relatively consistent relationship regardless of the course subject or level of student.^[15,17] This study shows that there is no correlation between attendance of student and final results. Finding from cohort as a whole and also mention that there is no direct correlation was seen between lecture attendance and final mark or result.^[20] The pattern of lecture attendance was similar for students in all grade ranges, but passing students were more likely to supplement attendance at lectures with the use of recordings.^[20] In addition to some studies showing that attendance and academic performance are directly correlated, some studies show a relatively consistent relationship between attendance and grades, regardless of the course subject or level of student.^[21,22]

Table 1: Various comments for open-ended items given by students

Question	Answer
Why students are not attending every class?	Most of the students believed that every class is not beneficial. Some of the students responded that class is not interesting, attending class is monotonous and 100% attendance is not compulsory are the most important reasons for not attending the class
What factors do you think affect student attendance?	Most of the students believed that timing of class is most important factor for not attending the class regularly, while some believed that examinations and clinical work, lack of interest in subject, laziness, and health problem are the common factors affecting student attendance
How does it make you feel when class attendance is lower than other students?	Most of the students believed that it makes them dishearten and nervous, at the same time some believed that it makes no difference in their behavior

Table 2: Various comments for open-ended items given by faculty

Question	Answer
Why students are not attending every class?	Most of the faculty member believed that topic of class is most important factor for not attending the every class, while some faculty believed that subject and teacher, lack of interest of students in subject are the common factors affecting student attendance
What factors do you think affect student attendance?	Most of the faculty member believed that type of teaching in the class is most important factor for not attending the every class, while some faculty believed that subject and teacher, laziness for attending the classes are the common factors affecting student attendance
What do you do in your course to encourage attendance for class period?	Most of the faculty member believed that topic of class should be made more attractive and interesting by doing role play, while some of the faculty member believed that teaching should be made simple and interactive, students must be aware of the importance of topic
How does it make you feel when class attendance in your courses is lower than others?	Most of the faculty member believed that it makes them feel bad and very discouraging, while some faculty member believed that it required improvement in teaching and also take interest in developing the awareness of students in subject

Table 3: Students perception regarding attendance and final performance

Questions	Strongly agree, n (%)	Agree, n (%)	Neutral, n (%)	Disagree, n (%)	Strongly disagree, n (%)
Attendance is related to student performance and grades	4 (6.3)	4 (6.3)	6 (9.5)	38 (60.3)	11 (17.5)
Can attendance be included in part of the grading system?	2 (3.2)	6 (9.5)	12 (19.0)	35 (55.6)	8 (12.7)
Absences in class indicate a missed opportunity for students to learn or reach their full potential	0	5 (7.9)	8 (12.7)	31 (49.2)	19 (30.2)
Students are less likely to attend class if attendance is not required	0	9 (14.3)	3 (4.8)	32 (50.8)	19 (30.2)
Students give higher priority to academic work than attending classes	3 (4.8)	5 (7.9)	20 (31.7)	34 (54.0)	1 (1.6)
Absentness is more where topic is known to student	1 (1.6)	14 (22.2)	16 (25.4)	30 (47.6)	2 (3.2)
Attendance has no correlation to how much student learn in a course	7 (11.1)	27 (42.9)	5 (7.9)	21 (33.3)	3 (4.8)
The way the classes were taught encouraged to attendances	2 (3.2)	5 (7.9)	1 (1.6)	38 (60.3)	17 (27.0)
Classroom absences can be categorized as potentially excused	4 (6.3)	17 (27.0)	22 (34.9)	19 (30.2)	1 (1.6)
Students perceived larger classes to have more of a decline in attendance	1 (1.6)	8 (12.7)	25 (39.7)	29 (46.0)	0
Is access to recorded lectures have effect on student attendance at live lectures	1 (1.6)	8 (12.7)	16 (25.4)	30 (47.6)	8 (12.7)
Time period of theory classes affect the attendant of student?	3 (4.8)	9 (14.3)	13 (20.6)	34 (54.0)	4 (6.3)
Time schedule of theory classes affect the attendant of student	3 (4.8)	5 (7.9)	12 (19.0)	36 (57.1)	7 (11.1)
Easy availability of teaching material on internet affect the student attendance	1 (1.6)	15 (23.8)	22 (28.6)	22 (28.6)	4 (5.2)

In the present study, 43% of faculty believe that attendance and academic performances are directly correlated, while only 20.8% of students are agree, showing significant differences between perception of students and faculty with $P = 0.001$. The Faculty of Medical Sciences at UWI, Cave Hill, has an attendance policy which states that “students must have an attendance rate of 80% of all timetabled sessions to sit final course examinations” (UWI, 2009).^[23]

Forty-five percent of faculty believes that attendance should be included as a part of grading while only 20% of students are agree with this, showing significant differences between perception of students and faculty with $P = 0.001$.

This study supports prior research that students and faculty have different perceptions about class attendance and participation. Students believe that attendance should be part of their course grade because it is fair to reward those who come to class and participate.^[24]

Khan *et al.* have shown that there is a positive correlation between attendance and academic performance.^[16] However, they also found that 21% of students who had very low attendance were in the top 20% in their class. Most of the study shows that confounding factors

in the learning process, such as student motivation and levels of engagement, which may have a greater contribution to academic performance than attendance. Studies conducted by Le Blanc, in year 2005 showing that attendance and academic performance are directly correlated [Table 4], some studies show a relatively consistent relationship between attendance and grades, regardless of the course subject or level of student.^[21]

Twenty-seven percentage of the student believe that easy availability of the teaching material at internet affects the attendance in classroom, while 38% of faculty member mention that easy availability of the teaching material is one of the common causes for not attending the class, with significant differences between perception of students and faculty with $P = 0.019$. In general, access to recorded lectures has little to no effect on student attendance at live lectures.^[20,25] However, some studies have found that recorded lectures do seem to have a slight negative effect on lecture attendance [Table 5].^[26] Besides student-related factors, the effect of other factors, particularly classroom and teaching-related ones, should be considered in the analysis of student attendance and academic performance.

The results of present study from the overall data analysis indicate that attendance, even though critical

Table 4: Faculty perception regarding attendance and final performance

Questions	Strongly agree, n (%)	Agree, n (%)	Neutral, n (%)	Disagree, n (%)	Strongly disagree, n (%)
Attendance should be compulsory	2 (2.6)	5 (6.5)	5 (6.5)	31 (40.3)	20 (26.0)
Attendance is related to student performance and grades	11 (14.3)	24 (31.2)	21 (27.3)	18 (23.4)	3 (3.9)
Can attendance be included in part of the grading system?	11 (14.3)	20 (26.0)	21 (27.3)	24 (31.2)	1 (1.3)
Absences in class indicate a missed opportunity for students to learn or reach their full potential	4 (5.2)	18 (23.4)	34 (44.2)	18 (23.4)	3 (3.9)
Students are less likely to attend class if attendance is not required	4 (5.2)	14 (18.2)	23 (29.9)	30 (39.0)	6 (7.8)
Students believe that regular attendance should be factored into final grades	1 (1.3)	6 (7.8)	19 (24.7)	31 (40.3)	6 (7.8)
Students giving higher priority to academic work in other classes	3 (3.9)	9 (11.7)	18 (23.4)	37 (48.1)	10 (13.0)
Absentness where topic is known to student	2 (2.6)	15 (19.5)	37 (48.1)	19 (24.7)	4 (5.2)
Attendance has no correlation to how much they learn in a course	2 (2.6)	12 (15.6)	15 (19.5)	29 (37.7)	19 (24.7)
The way the classes were taught encouraged attending the classes.	5 (6.5)	7 (9.1)	31 (40.3)	24 (31.2)	10 (13.0)
Classroom absences can be categorized as potentially excused	5 (6.5)	2 (2.6)	44 (57.1)	22 (28.6)	4 (5.2)
Students perceived larger classes to have more of a decline in attendance.	2 (2.6)	11 (14.3)	47 (61.0)	16 (20.8)	1 (1.3)
Is access to recorded lectures have effect on student attendance at live lectures	3 (3.9)	9 (11.7)	37 (48.1)	24 (31.2)	4 (5.2)
Time period of theory class affect the attendant of student?	4 (5.2)	17 (22.1)	16 (20.8)	34 (44.2)	6 (7.8)
Time schedule of theory class affect the attendant of student	2 (2.6)	13 (16.9)	18 (23.4)	38 (49.4)	6 (7.8)
Easily available teaching material on internet affect the student attendance	5 (6.5)	24 (31.2)	22 (28.6)	22 (28.6)	4 (5.2)
In spite of grading, student remain absent from class	1 (1.3)	5 (6.5)	12 (15.6)	40 (51.9)	5 (6.5)

to the learning process, is not the single most important factor in the learning process and suggest that other factors are critical to academic success [Table 6]. The study conducted by Cohall and Skeete in the year 2012 also feverous the same finding.^[27]

Besides student-related factors, the effect of other factors, particularly classroom and teaching-related ones, should be considered in the analysis of student attendance and academic performance. Some of these factors may be well indicated in the holistic approach which is regarded as the best approach to the learning process. Cohall in 2009 and Patel in 2003 also suggest that holistic approach is one of the effective approaches for learning.^[23,28]

Conclusion

In the present study, we found that there is significant difference between perception of faculty and students regarding attendance, although there is positive correlation between class attendance and examination results.

Following important aspects of student behavior in relation to attendance were identified. Motivation is the major factor causing students to attend the lectures. Unfortunately, not all students are motivated to study and learn. Results indicated that some students found lectures boring and not worth attending. New styles of teaching may need to be looked into. This needs to be further investigated on large sample size.

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Table 5: Correlation of students and faculty perception regarding attendance and final performance

Question	Student			Faculty			χ^2	P
	Disagree, n (%)	Neutral, n (%)	Agree, n (%)	Disagree, n (%)	Neutral, n (%)	Agree, n (%)		
Attendance is related to student performance and grades	8 (12.7)	6 (9.5)	49 (77.8)	35 (45.5)	21 (27.3)	21 (27.3)	35.441	0.001
Can attendance be included in part of the grading system?	8 (12.7)	12 (19.0)	43 (68.3)	31 (40.3)	21 (27.3)	25 (32.5)	19.579	0.001
Absences in class indicate a missed opportunity for students to learn or reach their full potential	5 (7.9)	8 (12.7)	50 (79.4)	22 (28.6)	34 (44.2)	21 (27.3)	37.620	0.001
Students are less likely to attend class if attendance is not required	9 (14.3)	3 (4.8)	51 (81.0)	18 (23.4)	23 (29.9)	36 (46.8)	19.769	0.001
Students give higher priority to academic work than attending classes	8 (12.7)	20 (31.7)	35 (55.6)	12 (15.6)	18 (23.4)	47 (61.0)	1.274	0.529
Absentness is more where topic is known to student	15 (23.8)	16 (25.4)	32 (50.8)	17 (22.1)	37 (48.1)	23 (29.9)	8.605	0.014
Attendance has no correlation to how much student learn in a course	34 (54.0)	5 (7.9)	24 (38.1)	14 (18.2)	15 (19.5)	48 (62.3)	20.135	0.001
The way the classes were taught encouraged to attendances	7 (11.1)	1 (1.6)	55 (87.3)	12 (15.6)	31 (40.3)	34 (44.2)	33.329	0.001
Classroom absences can be categorized as potentially excused	21 (33.3)	22 (34.9)	20 (31.7)	7 (9.1)	44 (57.1)	26 (33.8)	13.854	0.001
Students perceived larger classes to have more of a decline in attendance	9 (14.3)	25 (39.7)	29 (46.0)	13 (16.9)	47 (61.0)	17 (22.1)	9.273	0.010
Is access to recorded lectures have effect on student attendance at live lectures	9 (14.3)	16 (25.4)	38 (60.3)	12 (15.6)	37 (48.1)	28 (36.4)	8.954	0.011
Time period of theory classes affect the attendant of student?	12 (19.0)	13 (20.6)	38 (60.3)	21 (27.3)	16 (20.8)	40 (51.9)	1.430	0.489
Time schedule of theory classes affect the attendant of student	8 (12.7)	12 (19.0)	43 (68.3)	15 (19.5)	18 (23.4)	44 (57.1)	1.962	0.375
Easy availability of teaching material on internet affect the student attendance	16 (25.4)	12 (19.0)	35 (55.6)	29 (37.7)	22 (28.6)	26 (33.8)	6.692	0.035

Table 6: Comparison of student attendance and final result

Total number of student	Result of the students	Number of students	Attendance >90%	Attendance <90%	P
77	Pass	74	53	21	0.211 (NS)
	Fail	3	1 (1.88)	2 (9.52)	

NS: Not significant

Conflicts of interest

There are no conflicts of interest.

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