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Perceptions of Medical students on "Timing of theory classes"

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ABSTRACT

Background and Objectives: Most research has found that 'timing of classes' play a significant part in student achievement. When students were taught at times matching their preferences, scores were significantly higher on achievement tests. If time is viewed as a resource and can be influenced to support high quality instruction, preferred time-of-day is much more likely to result in improved learning. Currently, medical schools are not set up to match every student's perception on 'timing of the class'. Therefore, there is a need for research on 'timing of the theory class' for medical students.

Materials and Methods: A cross sectional observational study was conducted and perceptions of students belonging to MBBS stream from first semester to seventh semester were considered for our study. Structured questionnaire was used in the format of five-point Likert scale for every statement regarding the timing of theory classes, dissection hours, post lunch theory classes, interactive sessions, audio-visual aids and experience of teaching faculty. Results were analyzed with the help of MS office Excel and SPSS software version 20. We have compared the perceptions of medical students on five point Likert scale on each question and the statistical significance was calculated by Chi Square test.

Results: Our study included a total of 505 medical students across the semesters in MBBS stream. 33.1% of the students agreed to come for the theory class at 8° clock, across all semesters and 34.1% of first semester students agreed to come for 8° clock theory class when compared to 43% in 3rd Semester, 23.7% in 5th semester and 30.2% in 7th semester

students. In our study 50.8% of students from first semester disagreed to schedule 'dissection classes', of anatomy in the first hours of the day and 42.8% of students perceived that attention span was good in the morning class. 34.1% of the first semester students perceived that 'the quality of the teacher' makes the class more interesting irrespective of time of the day.

Conclusion: Medical students perceive differently on 'the timing of theory classes' across the semesters. Our study provides insights into student's perceptions regarding lack of attention during classes; which may be useful in identifying their expectations and to plan theory classes in the curriculum.

Keywords: Medical Students, Perceptions, Theory Class, Timing.

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INTRODUCTION

Medical education is not just a program for building knowledge and procedural skills in the learners; it is also a quality experience which creates attitudes and perceptions.[1] Attitude and perceptions of Medical students can play a major role in the standard of medical education, so the curriculum must be regulated strictly and regularly updated.[2] To meet the requirements of such a demanding and modern Curriculum, a wealthy cognitive, psychomotor, behavioral skills and great enthusiasm for attending the classes is required among the medical students.[3] With 539 medical colleges (including both government sector and private

sector) open for admissions in the academic year 2019-20, India has the highest number of medical colleges in the world. Despite this, India has a poor doctor to patient ratio with only one doctor available for 1588 people in the country compared to 390 in USA and the ideal doctor to patient ratio is 1:500.[4] Medical Council of India (MCI) has given New Curriculum (Competency Based Medical education - CBME) with listed competencies for the improvement of Medical education in India.[5] Medical education is the key for health in any country, has to be improved in quality to reach the global standard.[6,7]

Currently the curriculum for medical sciences was prepared by Teaching faculty and Medical Council of India (MCI) /National Medical Commission (NMC), without consulting the students for whom it was made. Gradually Basic medical science subjects are not attracting students; the MCI and Universities should device ways to make them more attractive.[8] So, to prevent the level of medical service provided from being compromised with the limited human resource available in India, the medical personnel have to be given a high quality curriculum and educational training. However, we believe that the medical educational system in India had faced many problems on which we need to address immediately. Most research has found that 'timing of classes' play a significant part in student achievement. When the students were taught with the curriculum matching their preferences, scores were good in the assessments. If the 'timing of class' is viewed as a resource and can be influenced to support high quality education, preferred time-of day is much more likely to result in better attention span and improved learning outcomes.[9] Currently, schools are not set up to match every student's perception on 'timing of the class'. Therefore, there is a need for research on 'timing of the theory class' for medical students. In the last two decades, the importance was given to teaching evaluation and it has been emphasized in Medical education.[10] It is an important issue to know what students perceive about the present medical education or timing of the classes. Their feedback can help the Government or MCI to find the pitfalls and fill gaps to improve the quality of medical education. It was well established that the students learn when they are involved actively according to their preferences in learning than when they are passive recipients of instruction[11], so it is important to elicit perceptions of medical students on 'timing of theory classes', as theory classes are accounting to 30% to 40% of the curriculum in medical subjects.

AIMS AND OBJECTIVES

Present study was aimed to analyze the opinion of under graduate medical students about present teaching practices on timing of the theory class in relation to learning outcomes, their expectations, their views and suggestions about various aspects of current medical education.

MATERIALS AND METHODS

This cross-sectional observational study was conducted in our Konaseema Institute of Medical Sciences and Research Foundation, located in Amalapuram - a rural area belongs to Andhra Pradesh. Perceptions of students belonging to MBBS stream from first semester to seventh semester were considered for our study. First semester students belong to new curriculum (Competency Based Medical education - CBME) when compared to senior students in third, fifth and seventh semester students. We have explained the nature of the study and possible benefits towards student community. Informed consent was taken from each and every student for participation in our study.

After obtaining the clearance certificate from Institutional Ethics Committee, a structured questionnaire was used in the format of five-point Likert scale for every statement regarding the timing of theory classes, dissection hours, post lunch theory classes, interactive sessions, audio-visual aids and experience of teaching faculty. This questionnaire was given during last part of practical session, to prevent disturbances to the regular academic sessions. Our Study was commenced in the month of January 2020 and completed in February 2020. Results were analyzed with the help of MS office Excel and SPSS software version 20. We have compared the perceptions of medical students on five point Likert scale on each question and the statistical significance was calculated by Chi Square test. Our questionnaire enquired about the timing of morning theory classes, afternoon theory classes, dissection in the day and preferred slot for better learning outcomes. Our questionnaire also collected opinions on experience of teaching faculty, audio-visual aids in relation to attention span and learning out comes in Medical education.

We have compared the perceptions between day scholars and students staying in hostel, among the medical students of various semesters from first professional year to final professional of MBBS stream.

RESULTS

The present study included a total of 505 medical students (198 male students and 307 female students) across the semesters in MBBS stream. Out of this sample 395 students were staying in various hostels in the campus and reaming 110 students were day scholars. Number of students present in the class from each semester on the day of study was presented in Table 1, along with their perceptions for each question from question number 1 to 5.

Perceptions for each question in the questionnaire from question number 6 to 10, across each semester were presented in Table 2. Statistical Significance was analyzed by considering percentage of each response in the five point Likert scale.

DISCUSSION

In our study 33.1% of the students agreed to come for the theory class at 8° clock, across all semesters. This finding was contrary to the study done by Amita et al.[12], where the 43.3% of the students perceived that the timings for theory classes were not suitable. In our study, it was found that 34.1% of first semester students agreed to come for 8° clock theory class when compared to 43% in 3rd Semester, 23.7%) in 5th semester and 30.2% in 7th semester students.

Holloway et al.[13], reported that student learning was influenced by individual student perception on the 'timing of the classes. In a study done by Owens et al.[14], students reported significantly more satisfaction with sleep and improved motivation with delaying school start time, which was in accordance with the perception of medical students in our study.

In our study 50.8% of students from first semester disagreed to schedule 'dissection classes, of anatomy in the first hours of the day when compared to only 15.7% of the students from 3rd semester students. In our study 42.8% of students perceived that attention span was good in the morning class (8 to 9° clock), when compared to 41.8% of students perceived the same in the study done by Rituparna et al.[15], on first year medical students in Tripura. In our study 34.1% of the first semester students perceived that 'the quality of the teacher' makes the class more interesting irrespective of time of the day, which was similar to the finding (25%) in the study done by Rituparna et al.[15]

In our study 29.5%of the first semestr students perceived that audio-visual aids that make the classes more interesting, when compared to 21.4% of students who perceived the same in the study by Rituparna et al.[15]

Table 1: Perceptions and analysis on questions

Question	Likert Scale	Semesters				Total	P-Value
		1st	3rd	5th	7th		
		n = 132	n = 121	n = 93	n = 159	n = 505	
Q1: You are ready to take 8° clock class	Strongly disagree	25(18.9%)	26(21.5%)	44(47.3%)	51(32.1%)	146(28.9%)	0.000*
	Disagree	22(16.7%)	17(14%)	17(18.3%)	37(23.3%)	93(18.4%)	
	Undecided	4(3%)	7(5.8%)	4(4.3%)	7(4.4%)	22(4.4%)	
	Agree	45(34.1%)	52(43%)	22(23.7%)	48(30.2%)	167(33.1%)	
	Strongly Agree	36(27.3%)	19(15.7%)	6(6.5%)	16(10.1%)	77(15.2%)	
Q2: You are ready for two classes in the morning (8-9 & 9-10)	Strongly disagree	8(6.1%)	41(33.9%)	50(53.8%)	69(43.4%)	168(33.3%)	
	Disagree	19(14.4%)	35(28.9%)	32(34.4%)	49(30.8%)	135(26.7%)	0.000*
	Undecided	13(9.8%)	22(18.2%)	3(3.2%)	15(9.4%)	53(10.5%)	
	Agree	50(37.9%)	20(16.5%)	7(7.5%)	21(13.2%)	98(19.4%)	
	Strongly Agree	42(31.8%)	3(2.5%)	1(1.1%)	5(3.1%)	51(10.1%)	
Q3: Do you feel it's good to have dissection in the morning (8 am to 10 am)	Strongly disagree	67(50.8%)	19(15.7%)	32(34.4%)	21(13.2%)	139(27.5%)	0.000*
	Disagree	37(28%)	19(15.7%)	20(21.5%)	35(22%)	111(22%)	
	Undecided	4(3%)	50(41.3%)	13(14%)	23(14.5%)	90(17.8%)	
	Agree	9(6.8%)	28(23.1%)	23(24.7%)	49(30.8%)	109(21.6%)	
	Strongly Agree	15(11.4%)	5(4.1%)	5(5.4%)	31(19.5%)	56(11.1%)	
Q4: (12 – 1 pm) theory class is appropriate after Clinical postings	Strongly disagree	34(25.8%)	45(37.2%)	30(32.3%)	43(27%)	152(30.1%)	0.000*
	Disagree	26(19.7%)	27(22.3%)	24(25.8%)	39(24.5%)	116(23%)	
	Undecided	35(26.5%)	15(12.4%)	14(15.1%)	8(5%)	72(14.3%)	
	Agree	24(18.2%)	21(17.4%)	17(18.3%)	52(32.7%)	114(22.6%)	
	Strongly Agree	13(9.8%)	13(10.7%)	8(8.6%)	17(10.7%)	51(10.1%)	
Q5: Theory class is NOT good between (2 - 4 pm)	Strongly disagree	7(5.3%)	20(16.5%)	14(15.1%)	17(10.7%)	58(11.5%)	0.000*
	Disagree	10(7.6%)	41(33.9%)	21(22.6%)	43(27%)	115(22.8%)	
	Undecided	9(6.8%)	21(17.4%)	12(12.9%)	19(11.9%)	61(12.1%)	
	Agree	22(16.7%)	22(18.2%)	19(20.4%)	41(25.8%)	104(20.6%)	
	Strongly Agree	84(63.6%)	17(14%)	27(29%)	39(24.5%)	167(33.1%)	
Q6: Theory class is good between (2 - 4 pm), if it is interactive	Strongly disagree	24 (18.2%)	8(6.6%)	11(11.8%)	15(9.4%)	58(11.5%)	0.006*
	Disagree	21(15.9%)	15(12.4%)	14(15.1%)	15(9.4%)	65(12.9%)	
	Undecided	8(6.1%)	19(15.7%)	14(15.1%)	14(8.8%)	55(10.9%)	
	Agree	53(40.2%)	45(37.2%)	37(39.8%)	85(53.5%)	220(43.6%)	
	Strongly Agree	26(19.7%)	34(28.1%)	17(18.3%)	30(18.9%)	107(21.2%)	
Q7: NOT ready for a theory class after (4 pm)	Strongly disagree	7(5.3%)	16(13.2%)	10(10.8%)	19(11.9%)	52(10.3%)	0.343
	Disagree	7(5.3%)	3(2.5%)	5(5.4%)	5(3.1%)	20(4%)	
	Undecided	6(4.5%)	4(3.3%)	0(0%)	4(2.5%)	14(2.8%)	
	Agree	11(8.3%)	11(9.1%)	10(10.8%)	21(13.2%)	53(10.5%)	
	Strongly Agree	101(76.5%)	87(71.9%)	68(73.1%)	110(69.2%)	366(72.5%)	
Q8: Attention span is good in the morning class	Strongly disagree	9(6.8%)	5(4.1%)	10(10.8%)	13(8.2%)	37(7.3%)	0.001*
	Disagree	7(5.3%)	5(4.1%)	12(12.9%)	16(10.1%)	40(7.9%)	
	Undecided	13(9.8%)	15(12.4%)	20(21.5%)	28(17.6%)	76(15%)	
	Agree	52(39.4%)	59(48.8%)	36(38.7%)	69(43.4%)	216(42.8%)	
	Strongly Agree	51(38.6%)	37(30.6%)	15(16.1%)	33(20.8%)	136(26.9%)	
Q9: If the teacher is relevant & experienced, Timing of the session is NOT a problem	Strongly disagree	5(3.8%)	8(6.6%)	7(7.5%)	12(7.5%)	32(6.3%)	0.045*
	Disagree	11(8.3%)	13(10.7%)	10(10.8%)	22(13.8%)	56(11.1%)	
	Undecided	30(22.7%)	22(18.2%)	9(9.7%)	14(8.8%)	75(14.9%)	
	Agree	45(34.1%)	38(31.4%)	44(47.3%)	63(39.6%)	190(37.6%)	
	Strongly Agree	41(31.1%)	40(33.1%)	23(24.7%)	48(30.2%)	152(30.1%)	
Q10: If the Audio-Visual aids are good, Timing of the session is NOT a problem	Strongly disagree	11(8.3%)	8(6.6%)	8(8.6%)	12(7.5%)	39(7.7%)	0.278
	Disagree	27(20.5%)	17(14%)	13(14%)	25(15.7%)	82(16.2%)	
	Undecided	31(23.5%)	24(19.8%)	23(24.7%)	20(12.6%)	98(19.4%)	
	Agree	39(29.5%)	41(33.9%)	33(35.5%)	66(41.5%)	179(35.4%)	
	Strongly Agree	24(18.2%)	31(25.6%)	16(17.2%)	36(22.6%)	107(21.2%)	

*Significant

CONCLUSION

The present study revealed that the medical students perceive differently on 'the timing of theory classes' across the semesters. The present study provides insights into student's perceptions regarding lack of attention during classes; which may be useful in identifying their expectations and to plan theory classes in the curriculum.

LIMITATIONS
The study was conducted in a single medical college, including only MBBS students. It can be made more scientifically appealing by including more medical colleges across the state of Andhra Pradesh.

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