

# Perceptions of Medical Students about their Educational Environment in Community Medicine in a Medical College of Coastal Karnataka

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## Introduction

Curriculum is a holistic and comprehensive entity in education which extends beyond classroom teaching to all interactions in the medical school.<sup>(1)</sup> Educational environment is one of the most important determinants of an effective curriculum.<sup>(2)</sup>

With a shift in the teaching pattern from teacher-centric to student-centered teaching,<sup>(3)</sup> wherein the teacher is now more of a facilitator in the learning process than an imposed teacher, the educational environment and the students' perceptions about the teaching pattern, the quality of teaching, the teachers, and their own assessment about their performance becomes imperative so as to ensure and maintain high-quality educational environments and optimum teaching to the students.

The present study was carried out to compare the quality of the educational environment in community medicine as perceived by the 6<sup>th</sup> semester (MBBS Final year part 1) students who were undergoing training in community medicine and 8<sup>th</sup> semester (MBBS Final year part 2) students who had finished their training in community medicine.

## Methodology

This cross-sectional study was conducted in Kasturba Medical College, Mangalore, Karnataka, India. Data

were collected using a 50 item Dundee Ready Education Environment Measure (DREEM),<sup>(4)</sup> a validated universal diagnostic inventory for assessing the quality of educational environment. The study was approved by the Departmental review board. It was administered to 450 medical students (225 from each batch) and 386 (207 from 6<sup>th</sup> semester and 179 from 8<sup>th</sup> semester) responded. For the items that scored less than 2, focus group discussion were carried out among few students in both the semesters to find out the reasons for the same. The data were analyzed using SPSS (Statistical Package for Social Sciences) version 11. Student *t* test was done to find out the difference between the mean scores,  $P < 0.05$  was considered as statistically significant.

## Results

The overall response rate of students was 85.8%. The mean (Standard Deviation) age of the participants were 21.03 (1.14) and 52% were males and 48% females.

Table 1 shows the mean DREEM domain scores for both the groups. Overall, the students had positive perception and more positive scores than negative toward community medicine. The mean DREEM scores were 113/200 for 6<sup>th</sup> semester students and 120/200 for the 8<sup>th</sup> semester students. In general, the total DREEM domain scores were found to be higher for 8<sup>th</sup> semester students.

Table 2 shows the comparison of mean DREEM scores where significant differences were observed between the 6<sup>th</sup> and 8<sup>th</sup> semester medical students.

According to DREEM inventory, items having a mean score of  $\geq 3.5$  are positive points,  $\leq 2$  indicate problem areas, and between 2 and 3 are aspects of the study environment that could be improved. The 6<sup>th</sup> semester

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students scored less than 2 for 10 items (4, 9, 14, 25, 27, 39, 42, 43, 48, and 49) and above 3 for 3 items (2, 10, and 19), whereas 8<sup>th</sup> semester students scored less than 2 for 10 items (3, 4, 9, 14, 17, 25, 27, 42, 48, and 49) and above 3 for 2 items (2 and 19). Scoring patterns in both the groups were similar except for 2 items (10 and 39). Seventeen items (3, 4, 5, 6, 7, 10, 11, 22, 25, 26, 36, 38, 41, 43, 44, 46, and 50) showed statistically significant difference between the two groups.

## Discussion

The overall mean DREEM score for all domains in our study reflects the positive perception of the students. All students perceived that teaching overemphasizes factual learning, it is too teacher centered, and they were bored

to enjoy this subject, which was consistent with other study findings.<sup>(2,5)</sup>

In focus group discussion, many students felt that the volume of the subject made the learning difficult, teaching could be made more student centered, more 6<sup>th</sup> semester students felt the subject be made more practical oriented and interesting. However, students felt there was a difficulty in reducing the volume/bulk of the subject because of the importance given in competitive exams and the basic frame work of the subject itself. Higher number of 8<sup>th</sup> semester students expressed the need for problem based learning in community medicine, which would help them in various aspects of clinical cases, similar to the observations made elsewhere.<sup>(5,6)</sup>

**Table 1: Comparison of mean DREEM domain scores in community medicine for 6<sup>th</sup> and 8<sup>th</sup> semester medical students**

Domain	6 <sup>th</sup> semester	8 <sup>th</sup> semester	Interpretation
Students perception of learning (SPL)	27/48	28/48	A more positive perception
Students perception of teachers (SPT)	26/44	27/44	Moving in the right direction
Students academic self-perception (SASP)	18/32	20/32	Feeling more on the positive side
Students perceptions of atmosphere (SPA)	27/48	29/48	A more positive attitude
Students social self-perceptions (SSSP)	15/28	16/28	Not too bad
Total DREEM item score for the group	113/200	120/200	More positive than negative

Most of our students opined that they were encouraged to participate in the class, teachers were knowledgeable in their subjects, teaching was focused, and it helped in developing their confidence and competence. This could perhaps be explained by the fact that lot of importance was given to practical teaching and good student-teacher interaction. Presentation of cases, seminars, etc., also helps in boosting the confidence of the students. Also, the items such as promptness in giving feedback to students, preparing for teaching sessions, and communicating with patients had a mean score between 2 and 3. Similar findings were also reported in other studies.<sup>(2,5)</sup>

## Conclusion

Educational environment is one of the most important determinants of an effective curriculum. The students

**Table 2: Comparison of mean (SD) DREEM scores where significant differences were observed between 6<sup>th</sup> and 8<sup>th</sup> semester medical students (N=386)**

Domain	Item	6 <sup>th</sup> semester	8 <sup>th</sup> semester	P value
1: Students perception of learning (SPL)	7. Teaching is often stimulating	2.02 (1.02)	2.26 (0.92)	0.01
	25. Teaching overemphasizes factual learning	1.75 (0.96)	1.52 (1.27)	0.04
	38. I am clear about the learning objectives of the course	2.35 (0.99)	2.56 (0.91)	0.03
	44. Teaching encourages me to be an active learner	2.18 (1.02)	2.39 (0.91)	0.03
2: Students perception of teachers (SPT)	6. Teachers are patient during bedside teaching	2.42 (0.95)	2.66 (0.96)	0.015
3: Students academic self-perception (SASP)	5. Previous learning strategy continues to work for me now	2.27 (0.97)	2.48 (0.95)	0.04
	10. I am/was confident of passing com-med	3.17 (0.92)	2.93 (0.94)	0.01
	22. I feel I am being well prepared for com med	2.15 (0.94)	2.54 (0.83)	0.001
	26. Last year's work has been a good preparation for this year's work	2.01 (1.04)	2.25 (1.08)	0.02
4: Students perception of atmosphere (SPA)	41. My problem solving skills are being well developed	2.08 (0.96)	2.39 (0.96)	0.002
	11. Atmosphere is relaxed during bed side teaching in community medicine	2.36 (0.90)	2.60 (0.95)	0.014
	36. I am able to concentrate well	2.14 (1.01)	2.35 (0.95)	0.03
	43. Atmosphere motivated me as a learner	1.92 (1.05)	2.29 (0.96)	0.01
	50. I feel able to ask questions I want	2.24 (1.04)	2.44 (0.92)	0.04
5: Students social self-perceptions (SSSP)	3. There is a good support system for students who got stressed	2.04 (1.07)	1.82 (1.02)	0.04
	4. I am too tired to enjoy this subject	1.54 (1.13)	1.85 (1.16)	0.009
	46. The experience of visiting and staying in PHC is pleasant	2.62 (1.12)	2.96 (1.81)	0.025

perceived the learning environment for community medicine to be positive. Also some gray areas were identified that needs remedial measures so as to ensure and maintain high-quality educational environment and optimum teaching to the students.

## References

1. Genn JM. AMEE Medical Education Guide No. 23 (Part 1): Curriculum, environment, climate, quality and change in medical education – a unifying perspective. *Med Teach* 2001;23:337-44.
2. Bassaw B, Roff S, McAleer S, Roopnarinesingh S, De Lisle J, Teelucksingh S, *et al.* Students perspectives on the educational environment, Faculty of Medical Sciences, Trinidad. *Med Teach* 2003;25:522-6.
3. Roff S. The Dundee Ready Educational Environment Measure (DREEM)–a generic instrument for measuring students' perceptions of undergraduate health professions curricula. *Med Teach* 2005;27:322-5.
4. Roff S, Mc Aleer S, Hardeen R, Al-Qahtani M, Ahmed A, Deza H, *et al.* Development and validation of the Dundee Ready Education Environment Measure (DREEM). *Med Teach* 1997;19:295-9.
5. Jiffry MT, McAleer S, Fernando S, Marasinghe RB. Using the DREEM questionnaire to gather information on an evolving medical school in Srilanka. *Med Teach* 2005;27:348-52.
6. Carmody DF, Jacques A, Denz-Penhay H, Puddey I, Newnham JP. Perceptions by medical students of their educational environment for obstetrics and gynaecology in metropolitan and rural teaching sites. *Med Teach* 2009;31: e596-602.

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