



Medical Students' Perceptions About Their Educational Environment in Community Medicine

KEYWORDS

Medical students' Perceptions, Educational Environment, Community Medicine and DREEM Score

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ABSTRACT *Background and Objectives: Identifying the strengths and weakness of educational environment will help the institute to facilitate student-centered learning and achieve better learning outcome. The study was undertaken with the objective of studying and comparing the perceptions of medical students about their educational environment in Community Medicine. Methods: A cross sectional study was conducted among all the sixth and eighth semester students of Kamineni Institute of Medical Sciences. Data was collected using a 50 item DREEM (Dundee Ready Education Environment Measure). Student t test was used to find out the difference between the mean scores. Results: The mean DREEM scores were 125/200 and 115/200 for the sixth and eighth semester students respectively which indicates a more positive than negative perception*

Introduction:

Educational environment defined as everything that happens within the classroom, department, faculty or university is a significant factor which determines the success of an effective curriculum^{1, 2, 3}. Students' perception of the educational environment has been shown to have a significant impact on their behaviour and academic progress^{4, 5}. The climate of Medical Education is an encompassing term that considers various factors such as learning and teaching methodologies, teacher-student relationship, self and peer development etc.⁶ To make a competent doctor attributes such as communication skills, team-working and coping abilities are essential and emphasised in newer medical curricula.⁷ Importance should be given to the perception of students to improve the educational environment as perceptions are associated positively with learning approach and attitude toward studying.⁸

The objectives of the present study were to study and compare the perception of sixth and eighth semester medical students about their educational environment in community medicine.

Materials and Methods:

The permission from Head of institution and approval from Institutional Ethics Committee, was obtained before starting the study. This cross sectional study was conducted in Kamineni Institute of Medical Sciences (KIMS), Narketpally, Andhra Pradesh, India. All those students belonging to the sixth and eighth semester who were present on the day of study and who gave their consent were included for the study. Sixth semester students were undergoing training in Community Medicine and eighth semester students had completed their training in Community Medicine. The study included 254 students which comprised of 118 students from sixth semester and 136 students from eighth semester. Data was collected with the help of a self administered 50 item Dundee Ready Education Environment Measure (DREEM) questionnaire, a reliable and validated instrument that identifies specific problem areas for different components of educational environment^{9, 10, 11}.

Scoring the DREEM items included: 4 for Strongly Agree (SA), 3 for Agree (A), 2 for Uncertain (U), 1 for Disagree (D) and 0 for Strongly Disagree (SD). However, 9 of the 50 items were negative statements and should be scored in the reverse order.¹¹

DREEM is a 50 item inventory, consisting of 5 subscales.

- Students' Perceptions of Learning (SPL)-12 items; maximum score is 48;
- Students' Perceptions of Teachers (SPT)-11 items; maximum score is 44;
- Students' Academic Self-Perceptions (SASP)-8 items; maximum score is 32;
- Students' Perceptions of Atmosphere (SPA)-12 items; maximum score is 48;
- Students' Social Self-Perceptions (SSSP)-7 items; maximum score is 28.

This 50-item DREEM has a maximum score of 200.

Data was compiled and analyzed by using SPSS Version 19. Student t test was used to find out the difference between the mean scores, $p < 0.05$ was considered to be statistically significant.

Results:

Table 1 shows the DREEM domain scores for the sixth and eighth semester students. The mean scores for Students perception of learning domain was 31 and 28 for the sixth and eighth semester respectively thus indicating a more positive perception. Students perceptions of teachers was 27 (sixth semester) and 24 (eighth semester) i.e. moving in the right direction. Students academic self perceptions was 22 (sixth semester) and 21 (eighth semester) i.e. feeling more on positive side. Students perceptions of atmosphere was 28 and 26 for the sixth and eighth semester students

respectively indicative of a more positive attitude and Students social self perceptions was 17 and 16 for sixth and eighth semester respectively i.e. not too bad. Total DREEM score was higher among the sixth semester students i.e. 125 and 115 for the eighth semester students thus indicative of a more positive perception.

Score of less than 2 indicative of problem areas was observed in nine items among the sixth semester students belonging to various domains; Students perception of learning (Items 25, 48), Students perceptions of teachers (Items 9, 39), Students perceptions of atmosphere (Items 12, 34, 35, 49), Students social self perceptions (Item 3). Score of less than 2 was observed in 10 items by the eighth semester students; Students perception of learning (Items 25, 48), Students perceptions of teachers (Items 8, 9, 39), Students perceptions of atmosphere (Items 17, 23, 35), Students social self perceptions (Items 3, 4).

Table 2 shows 33 DREEM items where statistically significant differences were observed among the sixth and eighth semester students. SPL had 9 items, 7 were from SPT, 5 from SASP, 9 from SPA and 3 from SSSP.

Tables:

Table 1: Mean DREEM Scores for sixth and eighth semester students

Domains	Mean DREEM Scores	
	Sixth semester	Eighth semester
Students' Perceptions of Learning (SPL)	31/48	28/48
Students' Perceptions of Teachers (SPT)	27/44	24/44
Students' Academic Self-Perceptions (SASP)	22/32	21/32
Students' Perceptions of Atmosphere (SPA)	28/48	26/48
Students' Social Self-Perceptions (SSSP)	17/28	16/28
Total DREEM Score	125/200	115/200

Table 2: DREEM items where significant differences were observed between sixth semester and eighth Semester students

Domains	Items	p- value
SPL	1.I am encouraged to participate in teaching sessions	0.007
	13.The teaching is student centred	<0.001
	16. The teaching helps to develop my confidence	0.038
	20. The teaching is well focused	0.010
	22. The teaching helps to develop my confidence	0.002
	24. The teaching time is put to good use	<0.001
	38. I am clear about the learning objectives of the course	0.025
	44. The teaching encourages me to be an active learner	0.003
	48. The teaching is too teacher centred	0.082
SPT	2. The teachers are knowledgeable	<0.001
	6.The teachers espouse a patient centered approach to consulting	0.037
	8. The teachers ridicule their students	<0.001
	18.The teachers appear to have effective communication skills with patients	0.006
	29. The teachers are good at providing feedback to students	0.002
	37. The teachers give clear examples	<0.001
SASP	40. The teachers are well prepared for their teaching sessions	0.019
	5. Learning strategies which worked for me before continue to work for me now	<0.001
	10. I am confident about passing this year	<0.001
	27. I am able to memorize all I need	<0.001
	31. I have learned a lot about empathy in my profession	0.033
	41. My problem solving skills are being well developed here	<0.001

SPA	11. The atmosphere is relaxed during consultation teaching	<0.001
	12. The course is well time tabled	<0.001
	17. Cheating is a problem in this course	0.002
	23. The atmosphere is relaxed during lectures	<0.001
	30. There are opportunities for me to develop interpersonal skills	0.001
	33. I feel comfortable in teaching sessions socially	<0.001
	34. The atmosphere is relaxed during seminars/tutorials	<0.001
	35. I find the experience disappointing	<0.001
SSSP	42. The enjoyment outweighs the stress of studying medicine	0.001
	4. I am too tired to enjoy this course	0.011
	14. I am rarely bored on this course	< 0.001
	19. My social life is good	< 0.001

Discussion:

The overall DREEM score in our study indicated a more positive perception among both the semester students. Similar results were observed in a study conducted in Mangalore.¹² However in a study conducted in Iran¹³ and King Saud University¹⁴; poor DREEM scores were observed which could be because of the traditional educational system being followed.

In our study, individual domain scores indicative of positive perception was obtained for all the five domains which was in contrast to the scores observed in a study done in Bangladesh² where lower scores were obtained for Students perception of atmosphere and Students social self perceptions domains.

The students perceived that teaching is too teacher centred, overemphasizes factual learning, teachers are authoritarian, get angry during the teaching sessions, ridicule the students. Poor scores were also obtained for items such as relaxed atmosphere during seminars, lectures, good support system for the stressed out students. These results were consistent with the results obtained in studies done at Bangladesh², Srilanka⁹, Manipal¹⁵ and King Saud University¹⁴. These problem areas reflect the need to shift the emphasis to student centred learning, providing a conducive atmosphere to students for learning.

The students perceived that the teachers are knowledgeable and are well prepared for the teaching sessions. They also perceived that the atmosphere is relaxed during consultation teaching and their problem solving skills are well developed. These findings were consistent with other study findings conducted in Mangalore¹² and Bangladesh².

Statistically significant differences were observed among the sixth and eighth semester students for 33 items. Majority of the differences were from SPL, SPT and SPA domains. Focus group discussions with the students would provide an insight into the reasons for differences, low scores and this will facilitate to further improve the educational environment. It is essential to provide an educational climate that nurtures and rewards educational leadership, innovation and excellence.¹⁶

Conclusion:

A more positive perception of the Community Medicine environment was observed by both the semester students in our study. Nurturing these areas of positive perception will help to promote teaching – learning as a scholarly endeavour. Corrective measures should be taken to rectify the perceived problems by training of teachers in developing their skills as facilitators, creation of cooperative and congenial teacher - students' relationship. Implementation of these remedial measures will thus help to provide a high quality educational environment across all the five domains.

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