



Original Research Article

A study to assess the perceptions of educational environment among students and faculty in a medical college

Nilesh Kate¹, Chandrika Teli^{2,*}, B S Chandrakala¹

¹Dept. of Physiology, ESIC Medical College, Gulbarga, Karnataka, India

²Dept. of Anatomy, ESIC Medical College, Gulbarga, Karnataka, India



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ABSTRACT

Introduction: Educational environment is physical, social and psychological context in which student learn. This definitely affects student's academic success, achievements, motivation to learn.¹⁻⁶ There is a need to identify effect, strengths and weakness of current educational environment.

Objectives: To compare perception of educational environment among students and teachers on Dundee Ready Educational Environment Measure (DREEM) questionnaire. To find out strengths and weakness of the educational environment.

Materials and Methods: Cross sectional, Questionnaire based. students 2nd-9th semester. (N=500, Age-18-25yr) Teaching staffs from all departments(N=100) After institutional ethical committee clearance and written informed consent DREEM questionnaire given which encompasses five subscales.

Statistical Analysis: For all domains. Parametric tests- mean + SD. t-test used for comparison of student and teachers on each category. P value of 0.05 was considered statistically significant. Non-parametric test used Mann-Whitney test.

Results: The educational environment scores were 135.38±15.41 (67.69%) for the teachers and 127.77±12.82 (62.81%) for the students (P<0.001). The differences in the scores statistically significant for the subscales were perception of Learning, perception of teachers and perception of Atmosphere and non-significant were for Academic self-perception and for Social Self-perception.

Conclusions: Teachers and students both perceive the educational environment positively but in subscales teachers perceived it more positive and acceptable. The strengths were knowledgeable teachers, having good friends, confident about passing and Weakness identified by students were memorize which may be due to traditional teacher centred curriculum.

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1. Introduction

Learning condition and student's experience contrast from school to school and is diverse and person.³ Educational condition can have positive or negative impacts as scholastic disappointment, wretchedness, dropout or injurious conduct.^{7,8} The huge impact of Learning condition can be clarified by arranged comprehension hypothesis that places learning happens in the social and physical condition setting, and learning is arranged in understanding.⁹

Several researches about have been done and numerous instructive condition instruments were created to research the perception of students on their learning condition. These are Dundee Ready Education Environment Measure (DREEM),¹⁰ Anaesthetic Theatre Education Environment Measure (ATEEM),¹¹ Postgraduate Hospital Educational Environment Measure (PHEEM),¹² Operating Room Educational Environment Measure (OREEM)¹³ and Surgical Theatre Educational Environment Measure (STEEM).¹⁴

An additional preferred precedence of DREEM is to investigate various issues, for example, exploring impression of the current instructive condition, distinguishing its quality and weakness,^{15,16} forerunner to educational

* Corresponding author.

E-mail address: drchandrikaesic@gmail.com (C. Teli).

program change,^{17,18} and effect of another/overhauled educational plan on view of educational environment.^{19–21}

As like some other medical colleges this institution likewise following conventional instructing learning technique, and we are nearly educational plan change as Competency based medical education (CBME) there is a need to recognize what students and faculty feel about current strategy, what are the qualities and shortcoming of this strategy before actualizing educational program change and what will be the effect of this new educational plan on students and faculty perception. Numerous researchers have investigated student's observation universally,^{22–34} yet restricted work from India including perception of students and faculties.^{35,36} Knowledge of various perceptions will be helpful in the assignment of intercession techniques. The investigation will assist with accomplishing accord arrangements that will positively affect the advancement of best curricular reform.

We aim to compare perception of students and faculties about student's educational condition in a medicinal school, utilizing The Dundee Ready Educational Environment Measure (DREEM). We estimate that the two qualities and weaknesses would be recognized. The outcomes, by giving a baseline, may offer a beginning stage for founding measures towards curricular change.

2. Objectives

1. To compare perception of educational environment among students and teachers on DREEM [Dundee Ready Education Environment Measure] questionnaire.
2. To find out strengths and weakness of the educational environment.

3. Materials and Methods

3.1. Study design

Cross sectional, Questionnaire based study over three months Nov-Jan 2019.

4. Ethical approval

The study is presented and received approval by the institutional ethical committee and review board.

4.1. Sample size

Students from 2nd to 9th semester enrolled for study. (N=500, Age– 18-25 years).

Teaching staffs from preclinical, para clinical and clinical side also enrolled for the study. (N=100).

Preceding the overview, all the members clarified the goals of the examination and information handling qualities. The significance of deliberate support in the investigation

and unknown nature of information assortment is clarified. A written informed consent was taken. The sample is handled and data is stored as per the tenets of the declaration of Helsinki (1964, amended in 2008).

4.2. Materials

4.2.1. Instrument

The Dundee Ready Educational Environment Measure (DREEM) is used to collect data on educational environment.¹⁹ Nine of the 50 items are negative statements.

Each item should be scored 0 – 4 with 4 = Strongly agree, 3 = Agree, 2 = Unsure, 1 = Disagree and 0 = Strongly disagree.

Negative items should be scored in reverse order so that the higher a score, the more positive the perception for all items.

The inventory encompasses five subscales:

1. Students' Perceptions of Learning (12 items/ maximum score 48).
2. Students' Perceptions of Teachers (11 items/ maximum score 44).
3. Students' Academic Self-perceptions (8 items/ maximum score 32).
4. Students' Perceptions of Academic Atmosphere (12 items/ maximum score 48).
5. Students' Social Self-perceptions (7 items/ maximum score 28).

Total 50 items with a maximum score 200. This instrument is intended to measure and diagnose the environments of educational institutions in the healthcare professions. The instrument has shown a consistently high reliability in a variety of settings. Items with a mean score of ≥ 3.5 are true positive points; those with a mean of ≤ 2 are problem areas; scores in between these two limits indicate aspects of the environment that could be enhanced. The maximal global score for the questionnaire is 200, and the global score is interpreted as follows: 0-50=very poor; 51-100=many problems; 101-150=more positive than negative; 151-200=excellent.

4.3. Questionnaire validation

Questionnaire validation will be done in 25 students. Validation procedure used is content validation method.

4.4. Statistical analysis

The data will be entered in excel and analysed using SPSS (17.0 version) software. For all the domain mean + SD will be calculated separately and percentage in relation to maximum scores for both student and teachers be evaluated. To compare the results of teachers and students, subscales and individual items Mann-Whitney test will use. The

Table 1: Interpretation of the DREEM questionnaire

S. No	DREEM and its subscale	Maximum score	Categorization of interpretation of score of subscales
1	Global score	200	1- < 50 very poor
			2 51-75 – plenty of problems
			3 76-150 – more positive than negative
			4 >150 – excellent.
2	Perception of learning	48	1 <12
			2 13-24
			3 25-36
			4 >36
3	Perception of teachers	44	1 <11
			2 12-22
			3 23-33
			4 >33
3	Perception of atmosphere	48	1 <12
			2 13-24
			3 25-36
			4 >36
5	Academic self perception	32	1 <8
			2 9-16
			3 17-24
			4 >24
6	Social self perception.	28	1 >7
			2 8-14
			3 15-21
			4 >21

t-test used for comparison of student and teachers on each category. P value of 0.05 will considered as being statistically significant.

4.5. Observation

Average scores of 50 items and eight domains of Dundee Ready Educational Environment Measure (DREEM) from students and staffs of ESIC Medical College, Gulbarga., India.

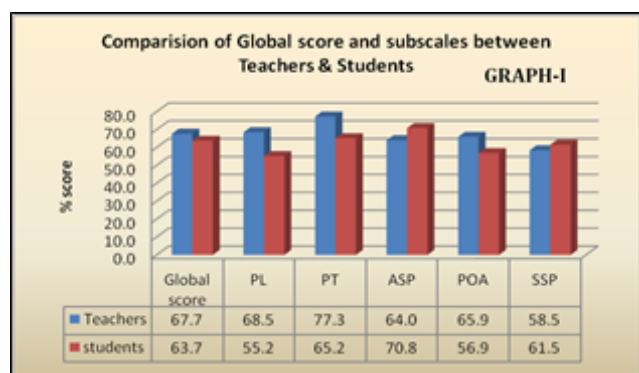


Fig. 1: Shows comparison of global score and subscales between teachers and students

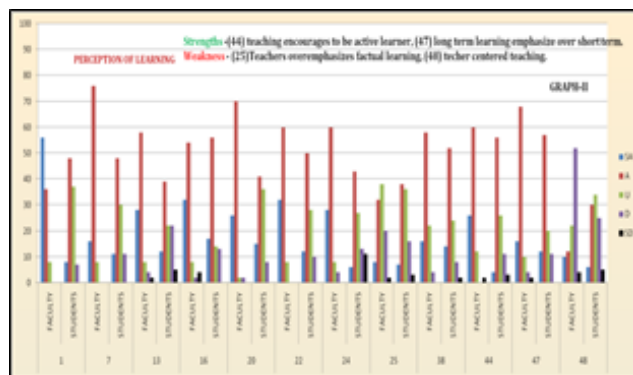


Fig. 2: Shows comparison of perception of teachers and students in Perception of learning

5. Discussion

The objective of Undergraduate (UG) medicinal preparing is to deliver 'specialists of first contact' or 'primary care physicians'. Having expressed this objective, most conventional educational programs and preparing programs, incorporating those in Indian establishments, have been planned around the instructive learning goals.^{37,38}

The educational environment scores were 135.38 ± 15.41 (67.69%) for the teachers and 127.77 ± 12.82 (62.81%) for the students ($P < 0.001$). The differences in the scores of the students and teachers which were statistically significant

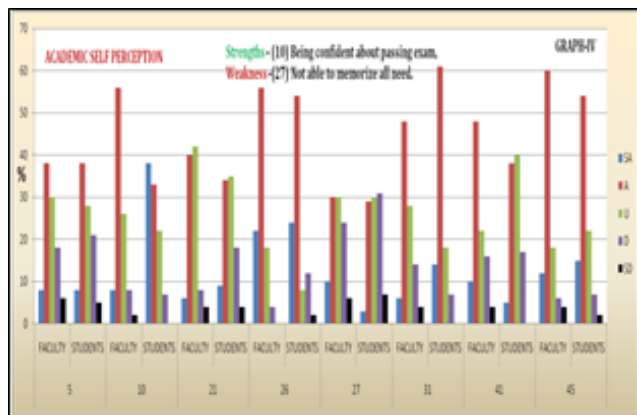


Fig. 3: Shows comparison of perception of teachers and students in Academic self-perception

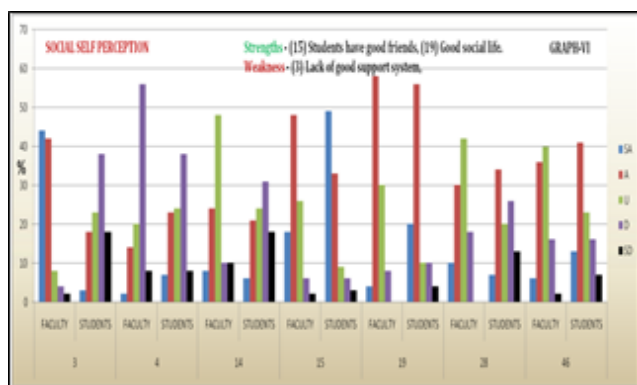


Fig. 4: Shows comparison of perception of teachers and students in Social self-perception

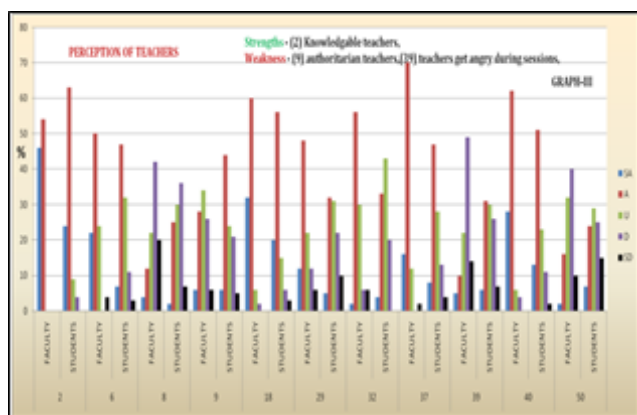


Fig. 5: Shows comparison of perception of teachers and students in Perception of Teachers

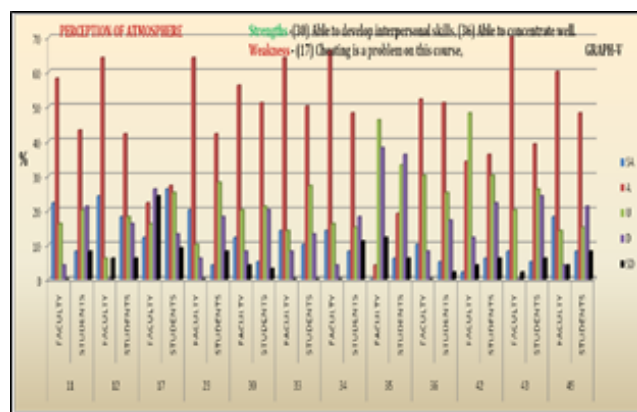


Fig. 6: Shows comparison of perception of teachers and students in Perception of Atmosphere

for the subscales were, respectively: 32.86(68.45%) and 26.69(55.18%) for Learning ($P < .0001$); 34.01(77.29%) and 29.98(65.2%) for Teachers ($P < .0001$); 31.65 (65.93%) and 28.60 (56.88%) for Atmosphere ($P < .00001$); and non-significant were 20.49 (64.03%) and 23.97(70.840%) for Academic self-perception ($P = .200$); 16.47(58.46%) and 18.53(61.56%) for Social self-perception ($P = 0.417$). The vast majority of the institutions from Asian sub-continent shows comparative outcomes demonstrating teacher focused, conventional control based educational program.^{39–43} Whereas from a portion of the foundations scores answered to be higher than the present examination demonstrating student focused, conventional, discipline-based educational program.^{44–47}

Out of total 5 subscales the highest score was reported by teachers in perception of teachers and score minimum in academic self-perception. Student score most extreme score in student’s impression of Learning and least in perception of atmosphere. This mirrors teacher’s suspicion of being model educators about themselves while feel student’s academic perception being on positive side. The students feel more confident about their academic life but find the educational atmosphere improvable in a long run. An impediment of this investigation is that it utilized a poll with foreordained decisions; a few factors that sway the environment in our organization may have been forgotten about. Furthermore, a study may not catch all the data that a subjective meeting can.

The educational environment is an unpredictable blend of different variables, explicit to every foundation, and the aftereffects of our examination may not be material to different establishments in India, or worldwide. This is the primary appraisal of student’s impression of the educational environment at this foundation; hence, it can fill in as a pattern to screen the impacts of curricular change over some stretch of time.⁴⁸ In particular, Specifically, students gave the lowest scores to the institutional support

system, burdensome course content, and factual learning. A limitation of this study is that it used a questionnaire with predetermined choices; some factors that impact the environment in our institution may have been left out. Secondly, a survey may not capture all the information that a qualitative interview can; The educational environment is a complex mix of multiple factors, specific to each institution, and the results of our study may not be applicable to other institutions in India, or worldwide. This is the first assessment of students' perception of the educational environment at this institution; thus, it can serve as a baseline to monitor the effects of curricular change over a period of time. Specifically, students gave the lowest scores to the institutional support system, burdensome course content, and factual learning.

6. Conclusions

1. Teachers and students both perceive the educational environment positively but in subscales teachers perceived it more positive and acceptable.
2. The strengths were knowledgeable teachers, having good friends, confident about passing and Weakness identified by students were inadequate support system, authoritarian/strict teachers, teacher centred teaching & inability to memorize which may be due to traditional teacher centred curriculum.
3. This difference reflects significant discrepancies on various aspects of the teaching-learning process by the individuals involved which shows different perspectives & possible lack of communication.

7. Further Intervention

Corrective measures will be taken after analysing the results & change in perception after incorporating the necessary changes will be record again.

8. Take Home Message

Our current educational system is built around assumption about how students should be taught. Let's instead focus on creating optimal environment where students can learn.

9. Source of Funding

None.

10. Conflict of Interest

None.

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Author biography

Nilesh Kate Professor

Chandrika Teli Assistant Professor

B S Chandrakala Professor & Head

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