

COMPARISON OF PERCEPTION ON EDUCATION AMONG FIFTH AND SEVENTH SEMESTER MEDICAL STUDENTS IN A GOVERNMENT MEDICAL COLLEGE, GUNTUR*¹S. S. N. Kowmudi, ²P. Radhakumari and ³R. Nageswara Rao¹Second Year P.G., ²Professor and ³Professor and HOD.
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ABSTRACT

Background: Educational environment of an institution affects learning and has a significant role in determining student's academic achievement. The World Federation of Medical Education, in 1998, highlighted the learning environment as one of the targets for the evaluation of medical education programs. Students' perception of learning environment is important aspect for evaluation and improvement of the educational program. To determine the perception of medical graduates about the educational environment Dundee Ready Education Environment Measure (DREEM scale) which was originally developed by Dundee and has been validated as a universal diagnostic inventory for assessing the quality of educational environment of different institutions. The present study aims to assess the perception on education among medical students in Guntur medical college using DREEM scale. **Materials and methods:** A descriptive cross-sectional questionnaire-based study was conducted among fifth (137) and seventh (183) semester medical students in Guntur medical college, Guntur. The 50-item DREEM questionnaire was used to collect the data. The items were scored based on a 5-point Likert scale. Analysis was done using MS excel and SPSS. **Results:** The mean total DREEM score was 121/200(121.76±26.20).The mean total DREEM score for fifth semester was 118/200 (118.78±26.06) and for seventh semester was 123/200 (123.99±26.71) .The interpretation of the overall scores is as follows: 0–50: very poor; 51–100: plenty of problems; 101–150: more positive than negative; and 151–200: excellent. 20.3% (65) of study population said plenty of problems, 69.7% (223) said more positive than negative,10% (32) said excellent .The general perceptions of students in all five sub scales were positive. **Conclusion:** The students' perception of learning, their teachers, atmosphere, and their academics and social self-perception were found to be satisfactory, not excellent. A better support system from the staff and senior students would help to overcome most of the deficiencies in the institution.

KEYWORDS: Education environment, student's perception, DREEM tool.**INTRODUCTION**

Educational environment for learning is one of the most significant determinants of an effective implementation of curriculum.^[1] Students' perception of the educational environment is crucial for improving and modifying the quality of medical education.

The aim of any learning activity is to impart quality knowledge to learners in the best possible environment. Medical students need to develop wide ranging skills and aptitudes to meet the healthcare needs of the patients and society that they intend to serve.

In India, national accreditation agencies like the National Assessment and Accreditation Council emphasize on the educational environment as one of the important criteria in improving the quality system of an institution as evident by its mission statement "to stimulate the

teaching-learning and research in higher education institutions."^[2]

The education environment (EE) defined as everything that is happening in the classroom, hospital, wards, department, faculty, university is known to affect students' performance² and a conducive EE should ideally nurture intellectual activities and progression, while at the same time boosting friendliness, cooperation, collaboration and support.^[3,5]

Dundee Ready Education Environment Measure (DREEM) developed by McAleer and Roff was used to assess the educational environment.^[6] The DREEM has continuously been used globally in medical schools and other health professions institutes to produce diagnostic analyses of undergraduate educational environments.^[7]

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Objectives

- To assess the students' perceptions of the teachers and their teaching, the learning atmosphere, and the academic and social environments in the institution.
- To compare the perception of the educational environment between the fifth semester and seventh semester students.

METHODOLOGY

A descriptive cross-sectional questionnaire-based study was conducted among fifth and seventh semester Bachelor of Medicine, Bachelor of Surgery (MBBS) students of Guntur medical college (GMC), Guntur, Andhra Pradesh.

A self-administered and structured questionnaire was used to collect data. The purpose of the study and process of data collection were explained before the administration of the questionnaire. DREEM questionnaire was used for this study.

DREEM questionnaire consists of five domains with 50 statements assessed on five-point Likert scale ranging from strongly agree (4) to strongly disagree (0). These

50 items will be having a maximum score of 200 which indicates an ideal situation.

The five domains of DREEM inventory are as follows:

1. Student's perceptions of learning (SPoL - 12 items/48 marks)
2. Student's perceptions of teachers (SPoT - 11 items/44 marks)
3. Student's academic self-perception (SASP - 8 items/32 marks)
4. Students perception of atmosphere (SPoA - 12 items/48 marks)
5. Student's social self-perceptions (SSSP - 7 items/28 marks)

Of 420 medical (MBBS) students of fifth and seventh semesters, 320 consented to participate in the study voluntarily and duly filled the questionnaire with a responses were considered for the analysis.

Data collection and analysis

The data was collected as based on DREEM questionnaire with the help of google forms.

The collected data was entered in MS excel and analysis was done using spss software.

RESULTS

The mean total DREEM score was 121/200(121.76±26).

The mean total DREEM score for fifth semester was 118/200 (118.78±26.06) and for seventh semester was 123/200 (123.99±26.71).

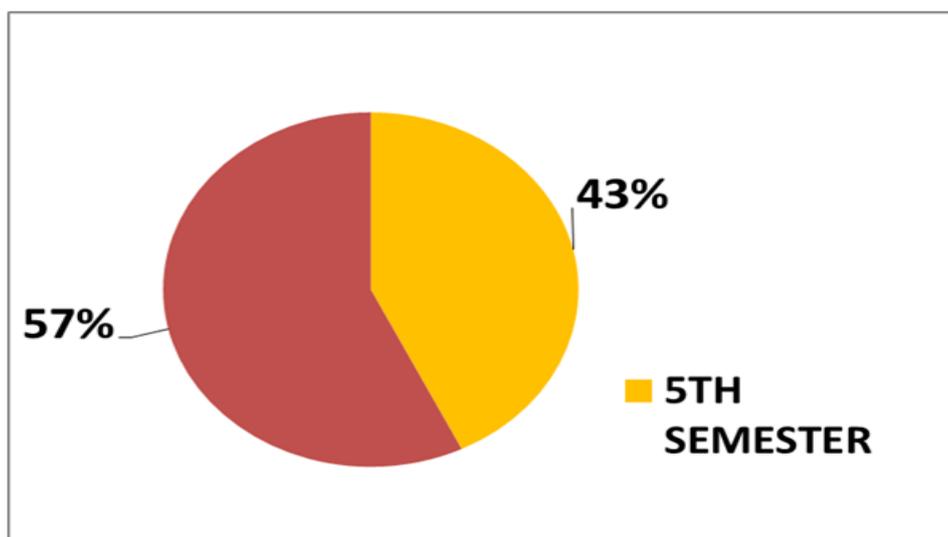


Figure no.1: Response rate per semester.

Table no.1: Comparison of Mean scores on the subscales and overall tool for fifth and seventh semester medical students.

Subscale	5 TH SEM	7 TH SEM	INTERPRETATION
SPL(48)	27±8.77	29.05±8.58	A more positive perception
SPT(44)	26.72±5.37	28.08±6.19	Moving in right direction
SAP(32)	19.67±5.49	20.84±5.15	Feeling more on positive side
SPA(48)	27.58±7.72	28.10±7.91	A more positive atmosphere
SSP(28)	17.32±4.18	17.93±4.02	Not too bad
ALL ITEMS(200)	118.78±26.06	123.99±26.16	More positive than negative

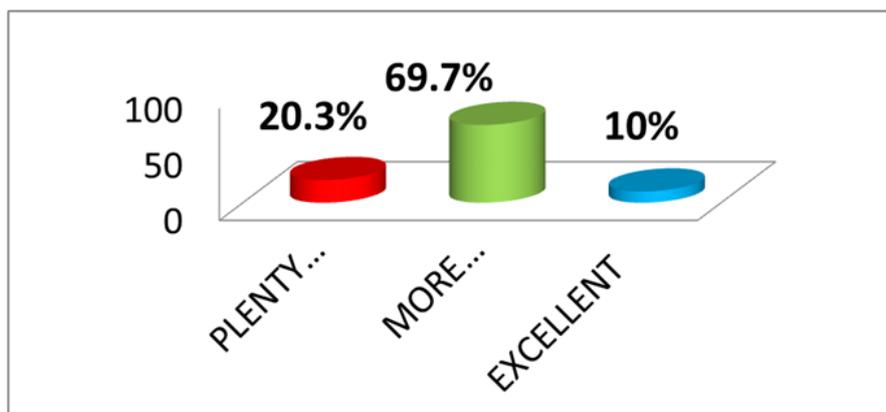


Figure no. 2: Categorical interpretation of overall mean score.

Table no. 2: Analysis of mean scores for each domain by using t test.

Sub scale	t test	P value
SPL	-1.586	0.114
SPT	-2.055	0.041
SAP	-1.953	0.052
SPA	-.589	0.556
SSP	-1.315	0.190

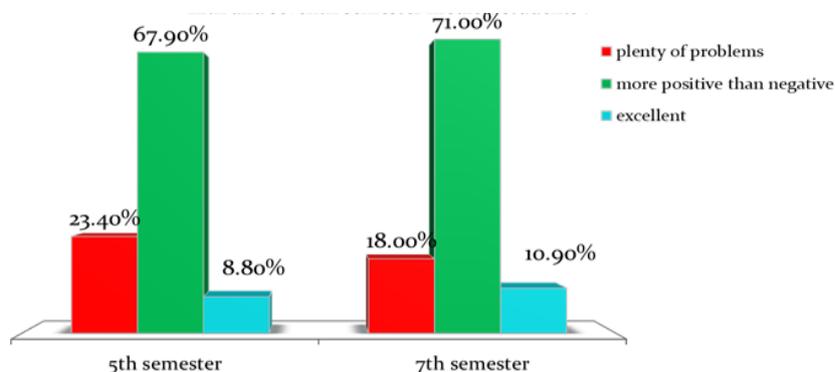


Figure no. 3: Comparison of Categorical interpretation DREEM Score between fifth and seventh semester medical students.

DISCUSSION

In this study, out of 320, 137 were fifth semester medical students and 183 were seventh semester medical students participated.

The overall mean DREEM score in this study was $121.76 \pm 26.20/200$.

The mean total DREEM score for fifth semester was $118/200$ (118.78 ± 26.06) and for seventh semester was $123/200$ (123.99 ± 26.71).

In all domains seventh semester students (118.78 ± 26.06) have got higher mean score when compared to fifth semester (123.99 ± 26.71).

But only students perception on teaching ($p=0.041$) and students academic self perception ($p=0.052$) showed significant difference between fifth semester and seventh semester medical students.

In a study conducted by Anandi Amarnathan in 2016, among the 5 domains, perception of learning, perception of teachers and ASP showed statistically significant difference between the two groups—preclinical students scored better than clinical students.

In a study conducted by N.Asha rani in 2017 got overall mean DREEM score 127.35 ± 29.1 , indicative of a “more positive than negative perception.” This is analogous with the overall results of several studies done in India and other countries.^[9,10]

CONCLUSION

To conclude, overall students perceived the education environment Guntur medical college to be satisfactory.

Students assessed the educational environment at this institution as more positive than negative; however, improvements are required across all five domains. These will highlight the strengths and weaknesses regarding educational environment in individual

institution and help to adopt better teaching-learning practices and ultimately improve the academic environment of medical schools.

the educational environment: Universiti sultan zainal abidin. *Adv Med Educ Pract.*, 2015; 6: 211-22.

REFERENCES

1. Ostapczuk M, Hugger A, de Bruin J, Ritz-Timme S, Rothhoff T. DREEM on, dentists! Students' perceptions of the educational environment in German dental school as measured by the Dundee Ready Education Environment Measure. *Eur J Dent Educ.*, 2012; 16: 67-77. doi:10.1111/j.1600-0579.2011.00720.x
2. Manual of Health Sciences for University, National Assessment and Accreditation Council (NAAC), Bengaluru. Available from: http://www.naac.gov.in/images/docs/health_science_manuals/Final-HSM-Uni-QIF-Templates-andGlossary.pdf. [Last accessed on 2019 oct23].
3. Bakhshialiabad H, Bakhshi M, Hassanshahi G. Students' perceptions of the academic learning environment in seven medical sciences courses based on DREEM. *Adv Med Educ Pract.*, 2015; 6: 195-203.
4. Rahman NI, Aziz AA, Zulkifli Z, Haj MA, Mohd Nasir FH, Pergalathan S, Hamidi MI, Ismail S, Simbak NB, Haque M. Perceptions of students in different phases of medical education of the educational environment: Univesiti Sultan Zainal Abidin. *Adv Med Edu Pract.*, 2015; 6: 211-22.
5. Hammond SM, O'Rourke M, Kelly M, Bennett D, O'Flynn S. A psychometric appraisal of the DREEM. *BMC Med Educ.*, 2012; 12: 2. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3277479/pdf/1472-6920-12-2.pdf> [Last accessed on May 13, 2015]
6. Roff S, McAleer S, Harden RM, et al. Development and validation of the Dundee ready education environment measure (DREEM). *Med Teach.*, 1997; 19(4): 295-299. doi:10.3109/01421599709034208
7. Menaka DS, Lokuhetty MDS, Warnakulasuriya SP, Perera RIR, De Silva HTR, Wijesinghe HD. Students' perception of the educational environment in a Medical Faculty with an innovative curriculum in Sri Lanka. *South-East Asian J Med Educ.*, 2010; 4(1): 9-16.
8. Menaka DS, Lokuhetty MDS, Warnakulasuriya SP, Perera RIR, De Silva HTR, Wijesinghe HD. Students' perception of the educational environment in a Medical Faculty with an innovative curriculum in Sri Lanka. *South-East Asian J Med Educ.*, 2010; 4(1):9-16
9. Lokuhetty MD, Warnakulasuriya SP, Perera RI, De Silva HT, Wijesinghe HD. Students' perception of the educational environment in a medical faculty with an innovative curriculum in Sri Lanka. *South East Asian J Med Educ.*, 2010; 4: 9-16.
10. Rahman NI, Aziz AA, Zulkifli Z, Haj MA, Mohd Nasir FH, Pergalathan S, et al. Perceptions of students in different phases of medical education of