

Assessment Of Students' Perception Of Learning And Students' Perception Of Teachers At GMERS Medical College Vadnagar

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Abstract

Background & Aim: To produce Indian Medical Graduates who has desired knowledge, skill, values, attitudes we must provide them a good education environment. As teachers affect the learning environment of students, students' perception of teachers has direct influence on learning of students. We can improve our education environment only by systematic feedback and assessment. Aim of this study was assessment of students' perception of learning and students' perception of teachers at our college. **Materials and Method:** The present study was a cross-sectional questionnaire based descriptive study involving 422 students of MBBS at GMERS medical college Vadnagar in 2021. We used Dundee Ready Education Environment Measure (DREEM) questionnaire having 50 items under 5 domains. We studied specifically only 2 domains (a) Students' perception of learning and (b) Students' perception of teachers. Each item is rated on 5 point liker t scale ranging from 0 to 4. Data for both domains and all 23 items were calculated for mean (SD). Independent sample t-test and ANOVA test was used to identify significance between subgroups. **Results:** Total mean (SD) score for Students' perception of learning was 31.91 (6.31) and for Students' perception of teachers was 29.70 (5.14). 6 items scored >3. 3 items scored <2 are the area that requires immediate attention and improvement. Both domains mean scores were significantly higher in 1st year students as compared to rest. Mean domain score of preclinical students was significantly higher than clinical students. **Conclusion:** Students' perception of learning and teachers was more positive than negative at our institute. Areas that need immediate improvement are identified like authoritarian teachers, too teacher centered teaching and overemphasis on factual learning and brought to the notice of Medical Education Unit of our institute for corrective measures.

Keywords: Education Environment, Perception of learning, Perception of teachers

Introduction

The undergraduate medical education is revised to achieve the goal of producing "Indian Medical Graduates" who has desired knowledge, skill, values, attitudes and responsiveness¹. As the teachers affect the learning environment of students, students' perception of teachers has direct influence on learning of students². The classroom environment has significantly affected the students behavior, academic improvement and a sense of wellbeing^{3,4}. Miscommunication between students and teacher can adversely affect learning environment of students so necessity was felt to trigger interest among medical teachers to work for better educational climate⁵. The world over planners of medical education are constantly improving the educational environment

so that it became student friendly but at the same time does not compromise on standards and quality of learning which is possible only through systematic feedback and assessment⁶.

Aim of this study was assessment of students' perception of learning and students' perception of teachers at our college. Also identify the strength and weaknesses of our educational environment.

Materials and Method

The present study was a cross-sectional questionnaire based descriptive study involving students of 1st year, 2nd year, 3rd year and final year of MBBS at GMERS medical college vadnagar in 2021. After receiving institute's ethics committee approval written informed consent of all participants was taken as well confidentiality was also assured. Out of 700 total students 422 participated in the study.

Study instrument

We used Dundee Ready Education Environment Measure (DREEM) questionnaire having 50 items under 5 domains⁷. We studied specifically only 2 domains (a) Students' perception of learning having 12 items and (b) Students' perception of teachers having 11 items. Each item is rated on 5 point likert scale ranging from 0 to 4. Where 0=Strongly disagree, 1=Disagree, 2=Neutral, 3=Agree, 4=Strongly agree. Maximum score for domain (a) Students' perception of learning is 48 while maximum score for domain (b) Students' perception of teachers is 44.

There are 6 negative items (item 25,48,8,9,39,50) in 2 domain of our study for which correction is done by reversing the likert score So higher score show disagreement with that item.

Item with mean score > 3 are true positive, mean score of 2-3 are areas that could be enhanced and mean score < 2 are areas of concern.

Statistical Analysis

Data for both domains and all 23 items were calculated for mean (SD). Independent sample t-test was used for comparison of mean (SD) of 2 domains in Preclinical (1st year+ 2nd year) and clinical (3rd year + final year) students and for male and female students. 1-way ANOVA test (with post-hoc comparison using Tukey) was used to identify significance between subgroups.

Results

Out of 700 total students' 422 students (137 from 1st year, 130 from 2nd year, 82 from 3rd year, and 73 from final year) participated in the study.

Total mean (SD) score for Students' perception of learning was 31.91 (6.31) and for Students' perception of teachers was 29.70 (5.14). 6 items (item 2,6,18,29,37,40) scored >3 which suggest positive environment. 3 items (25 The teaching over-emphasizes factual learning, 48 The teaching is too teacher-centered, 9 The teachers are authoritarian) scored <2 are the area that requires immediate attention and improvement (Table 1).

Table 1. Mean (SD) score for individual items on DREEM questionnaire for 2 domains (a) Students' perception of learning and (b) Students' perception of teachers

Domain and items	1 st year (n=137) Mean (SD)	2 nd year (n=130) Mean (SD)	3 rd year (n=82) Mean (SD)	final year (n=73) Mean (SD)	Total (n=422) Mean (SD)
Students' perception of learning					
1 I am encouraged to participate in class	3.35 (0.58)	2.67 (0.83)	2.69 (0.87)	2.60 (0.81)	2.88 (0.83)
7 The teaching is often stimulating	3.25 (0.66)	2.80 (0.71)	2.63 (0.85)	2.50 (0.91)	2.86 (0.81)

13 The teaching is student - centered	3.26 (0.70)	2.81 (0.77)	2.52 (0.81)	2.41 (1.03)	2.83 (0.87)
16 The teaching is sufficiently concerned to develop my competence	3.37 (0.69)	2.70 (0.90)	2.59 (0.85)	2.58 (1.07)	2.88 (0.92)
20 The teaching is well focused	3.36 (0.74)	2.83 (0.83)	2.63 (0.85)	2.60 (0.89)	2.92 (0.87)
22 The teaching is sufficiently concerned to develop my confidence	3.32 (0.73)	2.68 (0.99)	2.51 (0.93)	2.50 (1.00)	2.82 (0.97)
24 The teaching time is put to good use	3.32 (0.70)	2.78 (0.82)	2.59 (0.92)	2.56 (0.99)	2.88 (0.89)
25 The teaching over-emphasizes factual learning	1.02 (0.93)	1.30 (0.75)	1.26 (0.86)	1.56 (0.84)	1.25 (0.87)
38 I am clear about the learning objectives of my course	3.22 (0.74)	2.83 (0.75)	2.89 (0.78)	2.89 (0.79)	2.98 (0.78)
44 The teaching encourages me to be an active learner	3.31 (0.78)	2.90 (0.81)	2.84 (0.86)	2.69 (0.87)	2.99 (0.85)
47 Long-term learning is emphasized over short-term	3.06 (0.84)	2.74 (0.78)	2.62 (0.92)	2.79 (0.74)	2.83 (0.83)
48 The teaching is too teacher-centered	1.61 (1.18)	1.77 (1.04)	1.65 (1.00)	2.04 (0.94)	1.74 (1.07)
Students' perception of teachers					
2 The teachers is knowledgeable	3.50 (0.83)	3.23 (0.72)	3.17 (0.75)	3.17 (0.69)	3.30 (0.77)
6 The teachers are patient with patients	3.29 (0.72)	2.86 (0.70)	2.89 (0.72)	2.91 (0.72)	3.01 (0.74)
8 The teachers ridicule the students	2.40 (1.25)	2.15 (0.94)	2.26 (0.93)	2.38 (0.90)	2.29 (1.05)
9 The teachers are authoritarian	1.60 (1.24)	1.70 (0.93)	1.53 (0.72)	1.89 (0.90)	1.67 (1.01)
18 The teachers have good communication skills with patients	3.42 (0.62)	2.97 (0.82)	3.00 (0.80)	2.91 (0.81)	3.11 (0.78)
19 The teachers are good at providing feedback to students	3.35 (0.65)	2.88 (0.80)	2.85 (0.86)	2.78 (0.83)	3.01 (0.80)
32 The teachers provide constructive criticism here	2.56 (1.12)	2.40 (0.90)	2.19 (0.85)	2.57 (0.74)	2.44 (0.95)
37 The teachers give clear examples	3.43 (0.59)	2.98 (0.76)	2.90 (0.76)	2.83 (0.78)	3.09 (0.75)
39 The teachers get angry in class	2.37 (1.03)	2.10 (1.02)	2.43 (0.78)	2.26 (1.00)	2.28 (0.98)
40 The teachers are well prepared for their class	3.48 (0.60)	3.02 (0.80)	2.87 (0.80)	2.89 (0.85)	3.12 (0.79)
50 The students irritate the teachers	2.65 (1.14)	2.10 (1.09)	2.34 (1.10)	2.17 (1.01)	2.34 (1.12)

Comparing mean of total score of 1st, 2nd, 3rd and final year students both domain scores was significantly higher in 1st year students as compared to rest (Table 2).

Table 2. Comparison of mean(SD) domain score of 1st, 2nd, 3rd and final year students using ANOVA

Domain (maximum score)	1 st year students mean(SD)	2 nd year students mean(SD)	3 rd year students mean(SD)	Final year students mean(SD)	Significant difference between domain scores of different years students
SPL(48)	35.49 (4.76)	30.87 (6.00)	29.47 (5.97)	29.76 (6.88)	1 st :2 nd , 1 st :3 rd , 1 st :final, p<0.00001
SPT(44)	32.10 (4.66)	28.44 (5.05)	28.47 (4.08)	28.80 (5.70)	1 st :2 nd , 1 st :3 rd , p<0.00001 1 st :final, p=0.00002
SPL: Students' perception of learning, SPT: Students' perception of teachers					

Students' perception of learning and Students' perception of teachers mean score when compared between preclinical and clinical students both domain shows p-value<0.001 which is considered to be statistically significant (Table 3).

Table 3. Comparison of mean(SD) domain score among preclinical and clinical students using t-test

Domain	Preclinical (n=267)	Clinical (n=155)	P value
Students' perception of learning	33.24(5.86)	29.61(6.40)	P<0.0001
Students' perception of teachers	30.32(5.18)	28.63(4.40)	P<0.001

There is no statistically significant difference between mean score of two domains in male and female students (Table 4).

Table 4. Comparison of mean(SD) domain score among Male and Female students using t-test

Domain	Male (n=269)	Female (n=153)	P value
Students' perception of learning	32.18(6.44)	31.42(6.05)	P=0.2347
Students' perception of teachers	29.95(5.31)	29.26(4.82)	P=0.1855

Discussion

There is curriculum change in medical education since 2019. Any change in curriculum should require the changes in educational environment and organization to effectively change the predicted behavior⁸. Perception of educational environment will help the institute to understand and effectively improve the curriculum implementation.

Students' perception of learning and Students' perception of teachers mean score show statistically significant difference between preclinical and clinical students which is also found in other studies^{9,10,11}. This could be due to preclinical students study majority in classroom environment while clinical students study in Outpatient department in hospital environment involving patients. Learning efficiency of clinical batch students can be enhanced by preplanned and structured clinical teaching rather than opportunistic teaching depending on availability of cases^{12,13}.

Students' perception of learning

The mean score for perception of learning domain at our institute was 31.91 is considered as more positive perception. Some other studies reported similar perception^{9,14,15}. The mean score was highest in 1st year students (35.49) followed by 2nd year (30.87), 3rd year (29.47) and final year (29.76). In this domain item no 25(The teaching over-emphasizes factual learning) and item no 48 (The teaching is too teacher-centered) scored < 2. Many other studies reported similar problems^{9,10,14,15,16}. This area need to be corrected by effective implementation of competence based curriculum which emphasize more on conceptual learning than factual learning and is student centered.

Students' perception of teachers

The mean score for students' perception of teachers domain in this study was 29.70 is interpreted as more positive perception is similar to other studies^{17,18}. The mean score was highest for the students of 1st year(32.10) followed by final year (28.80), 3rd year (28.47) and 2nd year (28.44). In this domain item no 9 (The teachers are authoritarian) scored < 2. This behavior of teachers is reported in other studies also^{10,16,19,20}. This area can be addressed by improving the training of teachers and shifting them to more innovative teaching from traditional one where teacher play the role of facilitator not just the providers of information. Item no 2 (The teachers is knowledgeable) scored 3.30 highest among the 23 items studied. This show the trust and confidence students have in the teachers at our institute.

Conclusion

Students' perception of learning and teachers was more positive than negative at our institute. 1st and 2nd year students perception was more positive than that of 3rd year and final year. Areas that need immediate improvement are identified like authoritarian teachers, too teacher centered teaching and overemphasis on factual learning and brought to the notice of Medical Education Unit of our institute for corrective measures. This study will help to improve educational climate at our institute.

Limitations

This study can be extended for other domains of Dundee Ready Education Environment Measure (DREEM) questionnaire and also teachers' perception about Educational environment can be taken to get complete picture of Educational environment.

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Conflict of Interest

No external funding and no conflict of interest declared.

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