Original Research Article

PERCEPTIONS OF THE LEARNING ENVIRONMENT AMONG FIRST-YEAR MBBS AND B.SC NURSING STUDENTS: A DREEM-BASED COMPARATIVE STUDY

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ABSTRACT

Background: An ideal academic environment may be defined as one that best prepares students for their future professional life and contributes towards their personal and psychosomatic development along with social well-being as well. A learning environment study is one way to improve the quality of an education programme.

Materials and Methods: A cross sectional study was conducted among first year MBBS and B.Sc. Nursing students in a Medical college in Firozabad between June and July 2025 using DREEM questionnaire. Data was analyzed in the form of percentages.

Results: More than half (57.7%) of the total participants perception of learning environment was more positive than negative with overall DREEM score of 135.8 ± 26.83. Student's perception of learning was more positive with mean score of 33.3 ± 6.10 followed by students' perception of institute's with a mean score of 32.6.

Conclusion: MBBS students perception of learning and social self perception score was more higher than BSc Nursing students.

Keywords: Learning Environment, MBBS students, B.Sc Nursing Students, DREEM Score.

INTRODUCTION

An ideal academic environment may be defined as one that best prepares students for their future professional life and contributes towards their personal and psychosomatic development along with social well-being as well.[1]

The 'Educational Environment' can be defined as 'a social system that includes the learner (including the external relationships and other factors affecting the learner), the individuals with whom the learner interacts, the setting(s) and purpose(s) of the interaction, and the formal and informal rules/policies/norms governing the interaction.[2,3] Students are influenced by both positive and negative role models, while working closely with teachers.[4,5]

A learning environment study is one way to improve the quality of an education programme. There is evidence that students' experiences in the classroom have an effect on their contentment with their studies and perceptions of their well-being, aspirations, and academic success. There is evidence that the students' experiences in their educational environment have an impact on satisfaction with the course of study, perceived well-being, aspirations, and academic achievement.[6] Students' development, competence, critical thinking, independence, sense of mental well-being, and self-assurance are all enhanced by a supportive EE. The competency of health-care professionals is the cornerstone for enhancing patient health and safety.[7-9]

Contrary to other classroom settings, clinical learning environments need to be of the highest

caliber since they give students the chance to hone their professional skills and apply their theoretical knowledge to a range of practical skills crucial to patient care.[10]

The study of the educational environment deals with assessing what happens at school.[11]and providing the available comprehensive evidence on the education process, the consequences of which being used to boost students' satisfaction and achievements.[12-14]Researchers in the field of education have tried to explain and measure the education environment,[15-17] with the most widely used tool being the Dundee Ready Education Environment Measure (DREEM) DREEM is a validated and universal instrument,[13] DREEM has been recognized as a reliable tool in a series of medical settings, by which administrators can detect limits and consider alterations to curriculum.[15,18,19,20]

In Uttar Pradesh there were rapid establishments of medical colleges after 2019 under the One District one Medical College Policy.The number of studies using DREEM score are not very much so this study will help in assessing students' perceptions in these newly established colleges. This assessment will help to identify the lacunas in the learning environment and rectify it so as to ensure that the intended benefits of these policies—improved healthcare access and quality education will be provided to students and benefit the society.

MATERIALS AND METHODS

A cross sectional study was conducted among first year MBBS and B.Sc. Nursing students in a Medical college in Firozabad between June and July 2025 after taking proper ethical clearance from the Ethical Committee of College. ASMC College was founded in 2019 under government's one district one medical college policy. It is affiliated to Atal Bihari Medical university and admits 100 MBBS students and 60 Bsc Nursing students through competitive examinations.

Inclusion Criteria
- First year MBBS and BSc Nursing students
- Those who were ready to give consent

A prevalidated, pretested DREEM questionnaire was used for assessing educational environment. The DREEM, a universal, culturally nonspecific, generic, reliable, and diagnostic inventory tool was used to assess students' perceptions about the educational environment. DREEM has been widely used to gather information about the quality of education environment in many institutions across the globe.[21,22,2,6]

DREEM is a 50-item inventory questionnaire, consisting of five subscales:
Students' perceptions of learning (SPL) − 12 items; maximum score is 48;
Students' perceptions of atmosphere (SPA) − 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' social self-perceptions (SSSP) − 7 items; maximum score is 28.

Each item is rated on a five-point Likert scale with score ranging from 0 to 4 where $0 =$ strongly disagree, $1 =$ disagree, $2 =$ unsure, $3 =$ agree, and $4 =$ strongly agree. There are nine negative items (items 4, 8, 9, 17, 25, 35, 39, 48, and 50), for which correction is made by reversing the scores; thus after correction, higher scores indicate disagreement with that item.

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 the 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; and 151–200 = excellent.[23]

Data Collection: Questionnaire was administered in the form of Google form after obtaining consent from the students. Data was entered into **SPSS version** and analyzed in the form of mean, median and percentages.

RESULTS

Out of 156 students (both MBBS and Bsc Nursing) 142 student's (73 %) responded. Among them response rate was 86% in MBBS whereas in Nursing it was 93%. Out of 142 students 46.5% were male and 53.5 % were females. More than two third (75.4 %) were in the age group of 20-25 years. Majority (90.1 %) had studied from English medium.

More than half (57.7%) of the total participants perception of learning environment was more positive than negative with overall DREEM score of 135.8+ 26.83.

The figure1 shows distribution of study participants according to mean scores of DREEM subgroups. According to graph students perception of learning was more positive with mean score of 33.3+6.10 followed by students' perception of institute's with a mean score of 32.6.
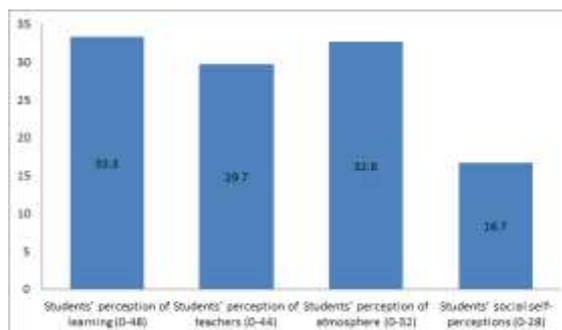

Figure 1

Table 1reflects the associations between subgroup analysis of DREEM score among nursing and MBBS students. A significant association was found between perception of learning domain and students' social perception with a p value of .028 and .010 respectively.

Table 1: Association of the subgroups analysis of the DREEM Scores across the course (N=142)

Total Scores	Group	N	Mean	SD	P value
Total DREEM Scores	**MBBS**	86	138.5	30.19	0.136
	Nursing	56	131.7	20.20	
Students' perception of learning	**MBBS**	86	34.4	6.68	**0.028***
	Nursing	56	32.1	4.82	
Students' perception of teachers	**MBBS**	86	30.5	6.05	0.054
	Nursing	56	28.5	5.76	
Students' academic self-perceptions	**MBBS**	86	23.0	7.11	0.636
	Nursing	56	23.6	5.27	
Students' perception of atmosphere	**MBBS**	86	33.0	10.05	0.562
	Nursing	56	32.1	6.51	
Students' social self-perceptions	**MBBS**	86	17.6	5.28	**0.010***
	Nursing	56	15.4	4.45	

Independent analysis of DREEM items for the both the group by using independent T test is shown in the Table 2.

Table 2: DREEM Scores of the individual item among MBBS and Nursing students (N=142)

DREEM Item (Independent T test)	Group	N	Mean	SD	P value
I am encouraged to participate in class	**MBBS**	86	3.21	0.896	0.172
	Nursing	56	3	0.874	
The teaching is sufficiently concerned to develop my confidence2	**MBBS**	86	3.13	1.015	**0.018***
	Nursing	56	2.71	0.986	
The teaching encourages me to be an active learner	**MBBS**	86	3.29	0.824	0.401
	Nursing	56	3.18	0.69	
The teaching is well focused	**MBBS**	86	3.23	0.877	0.06
	Nursing	56	2.96	0.738	
The teaching is sufficiently concerned to develop my competence	**MBBS**	86	3.21	0.828	**0.002***
	Nursing	56	2.73	0.904	
I am clear about the learning objectives of the course	**MBBS**	86	3.26	0.935	0.224
	Nursing	56	3.07	0.783	
The teaching is often stimulating	**MBBS**	86	3.14	0.91	**0.01***
	Nursing	56	2.75	0.792	
The teaching time is put to good use	**MBBS**	86	3.09	1.002	0.494
	Nursing	56	2.98	0.842	
The teaching is student-centred.	**MBBS**	86	3.14	0.996	0.386
	Nursing	56	3	0.831	
Long-term learning is emphasized over short term	**MBBS**	86	3.16	0.968	**0.024***
	Nursing	56	2.79	0.948	
The teaching is too teacher-centred	**MBBS**	86	**1.4**	1.201	0.135
	Nursing	56	**1.7**	1.111	
The teaching over-emphasizes factual learning	**MBBS**	86	**1.15**	1.143	0.653
	Nursing	56	**1.23**	0.874	
The teachers are good at providing feedback to students	**MBBS**	86	3.17	0.972	**0.022***
	Nursing	56	2.79	0.986	
The teachers have good communications skills with patients	**MBBS**	86	3.27	0.873	0.057
	Nursing	56	2.96	0.99	
The teachers are knowledgeable	**MBBS**	86	3.59	0.639	**<.001***
	Nursing	56	3.09	0.837	
The teachers give clear examples	**MBBS**	86	3.34	0.849	0.062
	Nursing	56	3.05	0.923	
The teachers are well prepared for their classes	**MBBS**	86	3.44	0.849	**<.001***
	Nursing	56	2.89	0.985	
The teachers provide constructive criticism here	**MBBS**	86	2.77	1.195	**<.001***
	Nursing	56	2.3	1.111	
The teachers ridicule the students	**MBBS**	86	**1.95**	1.51	0.364
	Nursing	56	2.18	1.323	
The teachers get angry in class	**MBBS**	86	**1.8**	1.478	0.058
	Nursing	56	2.27	1.328	
The teachers are authoritarian	**MBBS**	86	**1.48**	1.176	0.172
	Nursing	56	**1.75**	1.132	
The teachers are patient with patients	**MBBS**	86	3.14	0.91	**0.001***
	Nursing	56	2.61	1.003	
The students irritate the teachers	**MBBS**	86	2.51	1.395	0.746
	Nursing	56	2.59	1.385	

I am able to memorize all I need	**MBBS**	86	2.22	1.341	0.157
	Nursing	56	2.52	0.991	
Much of what I have to learn seems relevant to a career in medicine	**MBBS**	86	3.01	1.057	0.709
	Nursing	56	2.95	0.942	
I feel I am being well prepared for my profession	**MBBS**	86	2.81	1.163	0.128
	Nursing	56	3.09	0.837	
Last year's work has been a good preparation for this year's work	**MBBS**	86	2.81	1.203	0.968
	Nursing	56	2.82	0.876	
My problem-solving skills are being well developed here	**MBBS**	86	2.81	1.232	0.606
	Nursing	56	2.71	0.929	
I am confident about passing this year	**MBBS**	86	3.14	1.15	0.106
	Nursing	56	3.43	0.828	
I have learned a lot about empathy in my profession	**MBBS**	86	3.27	0.913	0.582
	Nursing	56	3.18	0.974	
Learning strategies which worked for me before continue to work for me now	**MBBS**	86	2.97	1.132	0.63
	Nursing	56	2.88	1.01	
The atmosphere is relaxed during lectures	**MBBS**	86	2.7	1.199	0.515
	Nursing	56	2.57	1.006	
I feel able to ask the questions I want	**MBBS**	86	2.67	1.315	0.778
	Nursing	56	2.73	0.963	
I feel comfortable in class socially	**MBBS**	86	3.05	1.039	0.061
	Nursing	56	2.71	1.004	
There are opportunities for me to develop interpersonal skills	**MBBS**	86	2.98	1.116	0.342
	Nursing	56	2.8	0.961	
The atmosphere is relaxed during seminars & tutorials.	**MBBS**	86	2.83	1.239	0.583
	Nursing	56	2.71	1.074	
The enjoyment outweighs the stress of studying medicine	**MBBS**	86	2.53	1.395	0.571
	Nursing	56	2.41	1.058	
The atmosphere motivates me as a learner	**MBBS**	84	2.86	1.194	0.154
	Nursing	56	2.57	1.093	
I am able to concentrate well	**MBBS**	86	2.79	1.159	0.745
	Nursing	56	2.73	0.842	
The atmosphere is relaxed during the ward teaching	**MBBS**	86	2.71	1.245	0.128
	Nursing	56	2.39	1.139	
This school is well timetabled	**MBBS**	86	3.28	1.092	0.457
	Nursing	56	3.14	1.017	
I find the experience disappointing	**MBBS**	86	2.23	1.531	0.999
	Nursing	56	2.23	1.144	
Cheating is a problem in this school	**MBBS**	86	2.43	1.523	**0.007***
	Nursing	56	3.09	1.225	
I have good friends in this school	**MBBS**	86	3.28	1.081	**0.028***
	Nursing	56	2.82	1.363	
There is a good support system for students who get stressed	**MBBS**	86	2.62	1.33	0.105
	Nursing	56	2.25	1.268	
I am too tired to enjoy this course	**MBBS**	86	**1.86**	1.512	0.554
	Nursing	56	2	1.112	
I am rarely bored on this course	**MBBS**	86	2.35	1.404	0.101
	Nursing	56	**1.98**	1.104	
R-My accommodation is pleasant	**MBBS**	86	2.65	1.361	**0.001***
	Nursing	56	1.88	1.349	
My social life is good	**MBBS**	86	2.73	1.35	0.172
	Nursing	56	2.43	1.189	
I seldom feel lonely	**MBBS**	86	2.14	1.55	0.682
	Nursing	56	2.04	1.348	

Most problematic areas of the educational environment that emerged from this study were (maximum score being considered as 4)

1. The teaching is too teacher centered with a score of 1.4 in MBBS and 1.7 in nursing students
2. Teachers overemphasize factual learning with a score of 1.15 and 1.23 among MBBS and nursing students respectively.
3. The teachers ridicule the students is more problematic among MBBS (DREEM score 1.95) than Nursing students
4. The teachers get angry in class the score was more low in MBBS (score 1.8) than nursing students
5. The teachers are authoritarian with a score of 1.48 and 1.75 among MBBS and nursing students respectively.
6. I am too tired to enjoy this course (DREEM score MBBS 1.86 and Nursing 2)

DISCUSSION

In our study there were total 142 students out of which 86 were from MBBS and 56 from nursing stream. The overall DREEM score among MBBS and nursing students was 138.5 and 131.7 respectively. Similar results were obtained in studies with mean DREEM score was measured as 126 ± 20.3. Nursing students were having more positive

perception about their EE (127.3 ± 19.3), as compared to medical students (124.6 ± 21.3).[24] In a study by Geethika koneru et al, overall DREEM score obtained was 116/200 among medical students and 110/200 among nursing students.[25]

A higher DREEM score (142.13 and 144.34) was obtained in a study by Garbuja C et al conducted. The difference in mean DREEM score is due to difference in study environment, profile of faculty, self-perception of students and differences in curriculum.

In our study, significant association was found in both perception of learning and social self-perception domain between MBBS and Nursing students. The perception of learning domain score was higher among MBBS students may be due to recent implementation mandatory training program of faculties in Competency based Medical Education Training Program of medical colleges, more simulation exercises, introduction of skill labs, early clinical exposure. Social Perception domain was least scored by both MBBS and nursing students but still it was higher among MBBS students it may be due to difference in course curriculum, good social life good support system as there is change in curriculum with inclusion of extra-curricular sports activities, seminars on mental health, hostel availability, and greater opportunities for peer interaction

On independent analysis of DREEM items students perception of learning domain there was significant association between MBBS and nursing students as MBBS students scored higher items liketeaching is sufficiently concerned to develop my confidence, teaching is sufficiently concerned to develop my competence, teaching is often stimulating and long-term learning is emphasized over short term. It may be due to revision in course of MBBS with the introduction of competence based medical education system which prioritizes learner-centered approaches, skill development, more flexibility to ask questions, formative feedback, and reflective learning

In perception of teaching domain MBBS students score higher than nursing students in the items: The teachers are good at providing feedback to students (.028), the teachers are knowledgeable (p<.001), The teachers are well prepared for their classes (p<.001), The teachers provide constructive criticism here (p<.001).It may be due change in attitude of teachers as they are now more empathetic towards students, mandatory training of teachers in competency based education.

In social self perception domain two items which have significant association were MBBS students have more friends and they are pleased with the accommodation. It is due to longer duration of course and availability of hostels for MBBS which leads to development of cohesion among students.

Through this DREEM questionnaire some problematic areas have also been identified among both MBBS and nursing students. Both the groups

feel that teaching is too teacher centered as it may be due to availability of online study materials and the ease of using it. This may be change through change in teaching methods, by repetitive training of faculty members. There should be more liberty for students to ask question and more emphasis on use of new methods like through videos, small group discussion, simulation techniques.

Students think that emphasis is more on factual learning it can be due to the evolving nature of medical science so the teachers emphasize on continuous learning of new facts so that students remain well learned. It can be change through more on practical or hands on approach technique. Mocking or insulting the students is another problem faced by them it may be due to generation gap between students and the faculty. This not only lowers their confidence but also makes them to lose interest in course. The other major issues identified were that teachers are authoritarians and they get angry easily. This needs to be change so that students do not lose morale and interest in course. Nursing students were feeling more bored and disinterested in their course as compared to MBBS students. This may be due to unavailability of hostels and proper nursing college. As the nursing college is not properly constructed, so it is currently running under medical college premises.

MBBS students were more tired to enjoy their course as compared to nursing students this may be due to busy timetable and too much course.

Limitations: The first main limitation of the study is that it is a cross sectional study, longitudinal studies or qualitative studies with in depth interviews will be more helpful in assessing the impact of curricular reforms over time. Another limitation is that study includes only first year students', perception of senior students who are more involved in clinical teachings are not assessed. This study is done in one center only multi-center studies will be more helpful in assessing overall learning environment among health sciences students and the impact of recent curricular reforms.

CONCLUSION

The study concludes that over all perception of learning among first year MBBS and BSc Nursing students was more positive than negative. MBBS students' perception of learning and social self-perception score was higher than BSc Nursing students. There were still some problematic areas like teacher centered learning, more emphasis on factual learning, authoritarian teaching. These gaps can be addressed by repeated feedback mechanisms, enhancing sensitization of faculty members and by emphasizing on enhanced students' support by mentor mentee program

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