



ACS MEDICAL COLLEGE STUDENTS' PERCEPTION OF THEIR EDUCATIONAL ENVIRONMENT DURING PANDEMIC TIMES.

General Medicine

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ABSTRACT

The purpose of this study was to use the Dundee Ready Education Environment Measure (DREEM) scale to determine the perceptions of the second batch (reformed curriculum) of medical graduates on the educational environment at the College of ACS Medical College. This survey-based research may be used to answer any EE-related issues. SPSS was used to examine the data. A total of 155 students took part in the research. Female pupils were more engaged than male classmates. Female students had a greater view of learning, professors, academic self-perception, and social self-perception than male students, while male students had a higher opinion of the atmosphere than female students. The overall impression of the educational environment among students was positive. This study was necessary to assess students' perceptions of the learning environment among medical graduates of the reformed curriculum and to make recommendations for curricular improvements. We expect to see more online teaching approaches integrated into traditional medical education after COVID-19. This might be related to the trend toward virtual consultations in medical practice.

KEYWORDS

Dundee ready education environment measure (DREEM), Curriculum, Educational Environment (EE), second year, male and female.

INTRODUCTION

The learning environment of an institution is the environment that students and teachers are exposed to or perceive. In order for students to learn effectively, the educational climate/environment is critical. The learner's involvement is one of the most important aspects that influences learning. Learners' motivation and sense of relevance have an impact on their engagement. These, in turn, are influenced by the learners' prior experiences and chosen learning styles, as well as the context and setting in which they are learning. [1]

The WHO has labelled the coronavirus disease 2019 (COVID-19) outbreak a worldwide pandemic since the first occurrence. The statewide lockdown limitations to stop the spread of illness and 'flatten the curve' have had an influence on many parts of life, including medical education, which has seen lectures, clinical placements, and important tests halted. As a result of these efforts, there has been a rapid movement in teaching methodologies toward online instruction. In recent years, online teaching has played an increasingly important role in medical education, demonstrating a number of benefits in terms of improving student learning. In terms of test outcomes, a recent systematic review concluded that offline and online education are similar. Time limits to undertake efficient online education have also been identified as major difficulties. [2,3]

Students' perceptions of the EE play a critical role in implementing changes and thereby optimizing the EE. By applying proper methodologies and tools to measure the EE, it is feasible to examine and adjust it. The Dundee Ready Education Environment Measure (DREEM) questionnaire captures the unique environment that all students in healthcare courses encounter. This may be used to highlight an educational institution's strengths and flaws, evaluate the performance and efficacy of other medical schools, and draw comparisons between students in different years of study and gender inequalities. It's also a good idea to change the curriculum and compare it to the prior one. [4]

Effective learning strategies align with medical students' views of the educational environment, resulting in improved learning outcomes and experiences. During the COVID-19 epidemic, we wanted to know what second-year MBBS students at ACS medical college and hospital in Chennai thought about the role of online teaching in enhancing their educational environment. Improving our knowledge of this might aid in the development of future medical school courses.

MATERIAL AND METHODS

An online survey was used to perform a cross-sectional study at Medical College. Following a literature search on current online teaching techniques and the effects of COVID-19 on medical education at the ACS Medical College in Chennai, DREEM questionnaire was developed. The DREEM questionnaire has 50 items with a 0–4 Likert scale (4 = highly agree, 3 = agree, 2 = uncertain, 1 = disagree, and 0 = severely disagree). However, nine of the fifty items (numbers 4, 8, 9, 17, 25, 35, 39, 48, and 50) were negative statements and should be scored in the other direction. A total DREEM score of 200 is the highest possible. However, results should be presented for all things in such a way that the higher the score, the more positive the reading (a more pleasant educational environment), and vice versa.

The DREEM inventory may be used to examine the specific strengths and weaknesses of the educational climate. In addition to the overall "score" for the course, the questionnaire statements can be subdivided to show student perceptions of five major domains of the educational environment: learning (12 items/maximum score 48), teacher (11 items/maximum score 44), academic self-perception (8 items/maximum score 32), atmosphere (12 items/maximum score 48), and social self-perception (7 items/maximum score 28).

There were nine negative statements out of 50 (numbers 8, 12, 15, 16, 21, 23, 34, 39, 45) that were given a reverse score, with 0 indicating strong agreement (SA) and 4 indicating strong disagreement (SD), such that a greater score indicated more positive replies. Problem areas were defined as items with a score of 2. The analysis was omitted from surveys that were incomplete.

The strategy used in this study is a descriptive survey design. After Institutional Ethics Committee permission (No.35/2020/IEC/ACSMCH dt.04.03.2020), the study was conducted at ACS Medical College Hospital in Chennai in March 2020.

Students in their second year of medical school took part in the study. They were told that all of the information gathered would be kept private. Prior to the distribution of the google form, the students were briefed about the significance of the study. They were told that the information gathered would be utilised for research purposes. We were able to acquire their consent. The DREEM inventory, which was written in English and has been proven to be valid and reliable, was framed in a Google form. It was distributed to a group of pupils. The replies were gathered through a Google form.

SPSS v.16 was used to analyse the data. Descriptive statistics were used to determine the frequency distribution and percentages of the pupils' socio demographic data. Each domain was classified and the results were reported as means and standard deviations (SD). The significance of the male and female groups was determined using a sample t-test. Statistical significance was defined as a p value of less than 0.05.

Questionnaire validation

Questionnaire validation was done in 15 (5–10%) students to review the questionnaire to determine whether the questionnaire measured what it was designed to measure. Content validation method was used for the validation procedure.

The following validation criteria were used:

- Time requirement for completion of questionnaire (5–10 min)
- Appropriateness of questionnaire for collecting data
- Repetition or inappropriate questions
- Logical order of questions
- Clear, concise and unambiguous questions
- Easy and meaningful instructions
- Comments and suggestions specified to the application guidelines

RESULTS AND DISCUSSION

During the pandemic, the questionnaire was given to 153 medical students in their second year of MBBS. The questionnaire was completed by 128 students (83 percent)

Table-1: Demographic parameters (N=128).

PARAMETER	n (%)
Categories of enrolled students	
Second-year MBBS (female students)	66 (51.56)
Second-year MBBS (male students)	62 (48.44)

Table-2: DREEM questionnaire score expressed as mean and SD.

DREEM Subscales	Mean (SD)	p value	Interpretation
Perception of learning (max 48)	37.7 (3.469)	0.001	A more Positive perception
Perception of teachers (max 44)	28.7 (2.515)	0.001	Moving in the right direction
Academic self-perception (max 38)	23.5 (2.614)	0.001	Feeling more on the positive side
Perception of atmosphere (max 48)	27.6 (4.725)	0.001	A more positive attitude
Social self-perception (max 28)	17.3 (2.72)	0.001	Not too bad
Total DREEM score (max 200)	134.8 (12.309)	0.001	More positive than negative

Table-3: Mean (SD) values among male and female students.

DREEM subscales with max value	Male students n=62	Female students n=66	Interpretation
Perception of learning (max 48)	31.2(3.878)	34.286 (3.369)	A more Positive perception
Perception of teachers (max 44)	28.6(2.939)	28.286 (1.485)	Moving in the right direction
Academic self-perception (max 38)	22.72 (3.144)	24.429 (2.470)	Feeling more on the positive side
Perception of atmosphere (max 48)	32.16 (5.198)	30.571 (2.095)	A more positive attitude
Social self-perception (max 28)	17.8(3.347)	19.571(2.060)	Not too bad
Total DREEM score (max 200)	131.48(15.145)	137.143 (5.768)	More positive than negative

It's unsurprising that, with the growth of COVID-19, many medical schools have turned to online education platforms. Prior to this epidemic, however, online education was employed. Here, we look at how the pandemic has influenced the present usage of online learning as well as its potential in medical education in the future. [7]

Female students engaged more actively than male students, according to the table above. Female students had a greater view of learning, professors, academic self-perception, and social self-perception than male students, while male students had a higher opinion of environment than female students. [5]

Curriculum in medical school is a dynamic, ever-changing sequence of learning experiences that is extending as a widespread entity ahead of classroom instruction. One of the most critical aspects of a successful programme is EE. The response rate in this study was 83 percent, which was similar to the results of a few other investigations.

No learning environment, however, can be fully devoid of flaws. The subscales are critical for deciding which regions require more remediation. [5] Female students responded more positively than male pupils. The lowest mean ratings for impressions of environment were found, indicating that there was still need to enhance the student housing amenities. The outcomes should be represented at a higher level, resulting in a more effective learning environment. [6] The sample size of our study is a significant drawback. The study might be enhanced in the future by comparing all four years of MBBS students. It may be expanded to dentistry, nursing, and paramedical students as well, giving the institution a comprehensive learning perspective.

CONCLUSION

Notably, while studying students' impressions of online education, no distinctions between the various modalities of online teaching were explored in this study. The educational environment for medical students was assessed to be favourable. Improvements in the atmospheric perspective are required. Students' opinions of the atmosphere will undoubtedly improve if they are given regular feedback. Future proposals will focus on creating a more compassionate atmosphere in which to address the difficulties in the health-care learning environment. Furthermore, student preferences may differ depending on the objective of using resources, such as acquiring new information vs. review, or short-term vs. long-term knowledge retention.

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