



Perception of educational environment among undergraduate medical students using dreem questionnaire: A survey

Seerat Ul Ain¹, Utpal Hirpara², Nahida Akhter³, Fiza shaikh⁴, Sheikh Khurshed^{5*}

¹ Department of Physiotherapy, School of Health Sciences, Om Sterling Global University, Hisar, Haryana, India

² Resident Physiotherapist Canada,

³ Department of Physiotherapy, School of Medical and Allied sciences, G D Goenka University Gurgaon, Haryana, India

⁴ Department of Physiotherapy, Sunrise College of Physiotherapy, Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka, India

⁵ MYAS-GNDU, Department of Sports Sciences and Medicine, Guru Nanak Dev University Amritsar, Punjab, India

Abstract

Background: There is an increasing interest and concern regarding the role of learning environment in undergraduate medical education in recent years. Educational environment is one of the most important factors determining the success of an effective curriculum. The quality of educational environment has been identified to be crucial for effective learning.

Aim: Perception of the Educational Environment, and to identify areas of strengths and weaknesses as well as scope for improvements in the current Educational Environment.

Methodology: A questionnaire based online survey was done through Google forms and consent form was filled by the students for the same.

Results: In this survey students were more confident about their passing with highest mean value of (3.3) but their perception about 'teaching over-emphasises factual learning' was negative with lowest mean value (1.6). The highest value of standard deviation was seen in 'cheating is a problem in this faculty' with value of (1.07) and lowest standard deviation was seen in 'clear about the learning objectives of the course' with value of (0.5).

Conclusion: This study revealed that all students perceived their EE positively. The positive points were that teachers were knowledgeable, and they were confident about passing their exams. Problem areas observed were authoritarian teachers, overemphasis on factual learning, teacher-centered teaching and teachers getting angry.

Keywords: DREEM questionnaire, undergraduate medical students, educational environment

Introduction

The Educational Environment is defined as everything that happens within the classroom, Department, Faculty or University. Students' views of their influences and pressures, as well as how this impression aligns with the curriculum's instructional goals, make up the educational environment. The 'Educational Climate' is the impression of the educational environment (EC). Learning outcomes, teacher skills, learning materials, learning and teaching techniques, assessment processes, timetabling, student assistance, facilities, classrooms, group size, and environment all impact students' impressions of Educational Climate^[1].

Learning environment of an institution is the environment experienced or perceived by students and teachers. The educational climate/ environment plays a very important role in effective student learning. Among the various factors which effect learning, engagement of the learner tends to be very crucial. The learners' engagement is further affected by their motivation and perception of relevance. These, in turn, can be affected by learners' previous experiences and preferred learning styles and by the context and environment in which the learning is taking place. In adult learning theories, teaching is as much about setting the context or climate for learning as it is about imparting knowledge or sharing expertise.

The educational environment makes an impact on students' learning experiences and outcomes. Students' perception of the environment within which they study has shown to have

a significant impact on their behavior, academic progress and sense of well-being. Educational environment influences how, why and what students learn which is crucial in the success of the curriculum. The curriculum and students' perception towards it may affect the quality of learning. The student's feedback in such system is pivotal for the success of the educational climate. Although, there may be cultural and other determinants of how individuals view different qualitative aspects of a given educational environment, perceived ratings precisely report their perceptions.

Educational environment as the spirit of teaching and learning activities is a major determinant of developing motivation in students. It would play an important role in academic achievement, satisfaction and success. However, learning is a relatively permanent change, in behavior of students in three domains: knowledge, attitude and psychomotor aspects. Teaching and learning in clinical setting is a matter of interest in medical schools and clinical attachments have strong influence in shaping the new doctors' competencies^[2].

Educational Climate promotes positive teacher attitudes as well as student achievement. The EC profile provides a means of determining an institution's strengths and shortcomings, allowing for comparative study within or across institutions to promote change and development in the educational process^[1].

Educational Environment (EE) is one of the most important factor in determining the success of an effective Curriculum

and subsequently the student’s academic success. Educational Environment includes learning, teaching, academic skills learning atmosphere such as rooms for lectures, tutorials, clinical activities and social environment. Because of its effect on the teaching-learning process, the notion of educational environment (EE) is gaining traction. It is critical to evaluate Educational Environment in order to provide high-quality education [3].

The Educational Environment is one of the objectives for assessing medical education, according to the World Federation for Medical Education. Academic performance, contentment with the curriculum, and the manner and substance of students' studying are all linked to educational settings and students' impressions of them. Individuals may gather and analyse environmental concerns, engage in problem solving, and take action to enhance the environment through the use of Educational Environment. Individuals get a better awareness of environmental concerns and the ability to make educated and responsible actions as a result [3].

The Educational Environment is an important aspect of student learning and a reflection of the curriculum's quality. The educational climate (EC) is the perception of the educational environment and has been characterized as "the soul and spirit of the medical school environment and curriculum." As a result, the Educational Climate is understood to refer to "anything that occurs in a classroom, a department, a medical school, or a university." Educational Climate has been considered as the expression, manifestation and measure of a curriculum and as a stimulus for change [1].

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The quality of educational climate impacts the quality of the curriculum, teaching and learning consideration and developing student’s outcomes as perception. A good learning environment has a positive and significant impact on student’s learning, academic progress and well-being.

Elements that influence the Educational Climate

- teacher’s competencies,
- learning resources,
- learning and teaching methodologies,
- assessment methods,
- timetabling,
- student support,
- facilities,
- classrooms,
- group size
- the atmosphere,
- teacher behavior
- the behavioral development of students
- learning outcome [1].

What is DREEM?

The Dundee Ready Education Environment Measure (DREEM) was created to assess the educational climate for medical schools and other health-related professions. It was created over a decade ago with the help of a Delphi panel of academic members from worldwide medical schools and health professions, and then validated with students from many nations. Other related tools include the MEEM (Medical Education Environment Measure), which preceded the DREEM, and several subsequent tools designed to measure the educational environment in specific post-graduate medical settings: the PHEEM (Postgraduate Hospital Educational Environment Measure), STEEM (Surgical Theatre Educational Environment Measure), and ATEEM (Academic Teaching Environment Evaluation Measure) (Anaesthetic Theatre Educational Environment Measure).

The DREEM is a closed-question questionnaire with 50 statements. These 50 items fit into one of the five subscales. Each of the 50 statements is graded on a five-point scale with the labels "Strongly agree" (4), "Agree" (3), "Unsure" (2), "Disagree" (1), and "Strongly disagree" (0). For items 4, 8, 9, 17, 25, 35, 39, 48, and 50, reverse coding is necessary. As a result, higher ratings imply a more favorable assessment. The DREEM may reach a maximum score of 200, indicating an optimal learning environment [5].

Domains of DREEM Questionnaire

1. Students’ perceptions of learning (SPL): 12 items; maximum score, 48
2. Students’ perceptions of teachers (SPT): 11 items; maximum score, 44
3. Students’ academic self-perceptions (SASP): 8 items; maximum score, 32
4. Students’ perceptions of atmosphere (SPA): 12 items; maximum score, 48
5. Students’ social self-perceptions (SSSP): 7 items; maximum score, 28 [6].

The DREEM results may be categorized into three categories: I specific items, (ii) subscales, and (iii) total DREEM. Each participant's raw scores for the items that make up each of the five subscales are totaled, and the mean of this summed score is used to calculate subscale summary scores. The subscale summary scores are added together to get the total DREEM score. Individual items may be examined by looking at the mean score received across all participants for each question, which allows unique strengths and weaknesses within the educational environment to be identified [5].

Scoring of DREEM Questionnaire

The DREEM inventory has an overall score of 200.

Table 1

| Score | Interpretation |
|---------|-----------------------------|
| 0-50 | Very poor |
| 51-100 | Plenty of problems |
| 101-150 | More positive than negative |
| 151-200 | Excellent |

Materials and Methods

It was a survey and questionnaire based study and the students participated in this study anonymously. Permission

from the institutional ethics committee was obtained before conducting the study. In this survey questionnaire based study, 101 students from Shree Swamirnarayan Physiotherapy College, Government Medical College, Kashmir Tibbia College Hospital & Research Centre (Online) were informed about the study and informed consents were obtained from individual willing students (all of them were adults. The study was conducted over a period of one week

Procedure

The participants that participated in this survey were undergraduate medical students. The participants were a sample of convenience and were easily accessible for the survey. The participants were sent a text message containing link of google form comprising of a Questionnaire for the survey that had to be filled. A consent form was sent on the same link and the students who agreed participated in this survey. Anonymity was insured with participants and the participation was voluntary.

Material Used

Paper, pen, Laptop, mobile phone and google form.

Inclusive Criteria

- First year to final year medical students.
- Interns
- Both gender (Male and Female)
- Students who are willing to participate in the Study voluntarily.

Criteria: Exclusive

- Postgraduate medical students.
- Students who are not willing to participate in the Study.

Students were more confident about their passing with highest mean value of (3.3) but their perception about ‘teaching over-emphasises factual learning’ was negative with lowest mean value (1.6). The highest value of standard deviation was seen in ‘cheating is a problem in this faculty’ with value of (1.07) and lowest standard deviation was seen in ‘clear about the learning objectives of the course’ with value of (0.5).

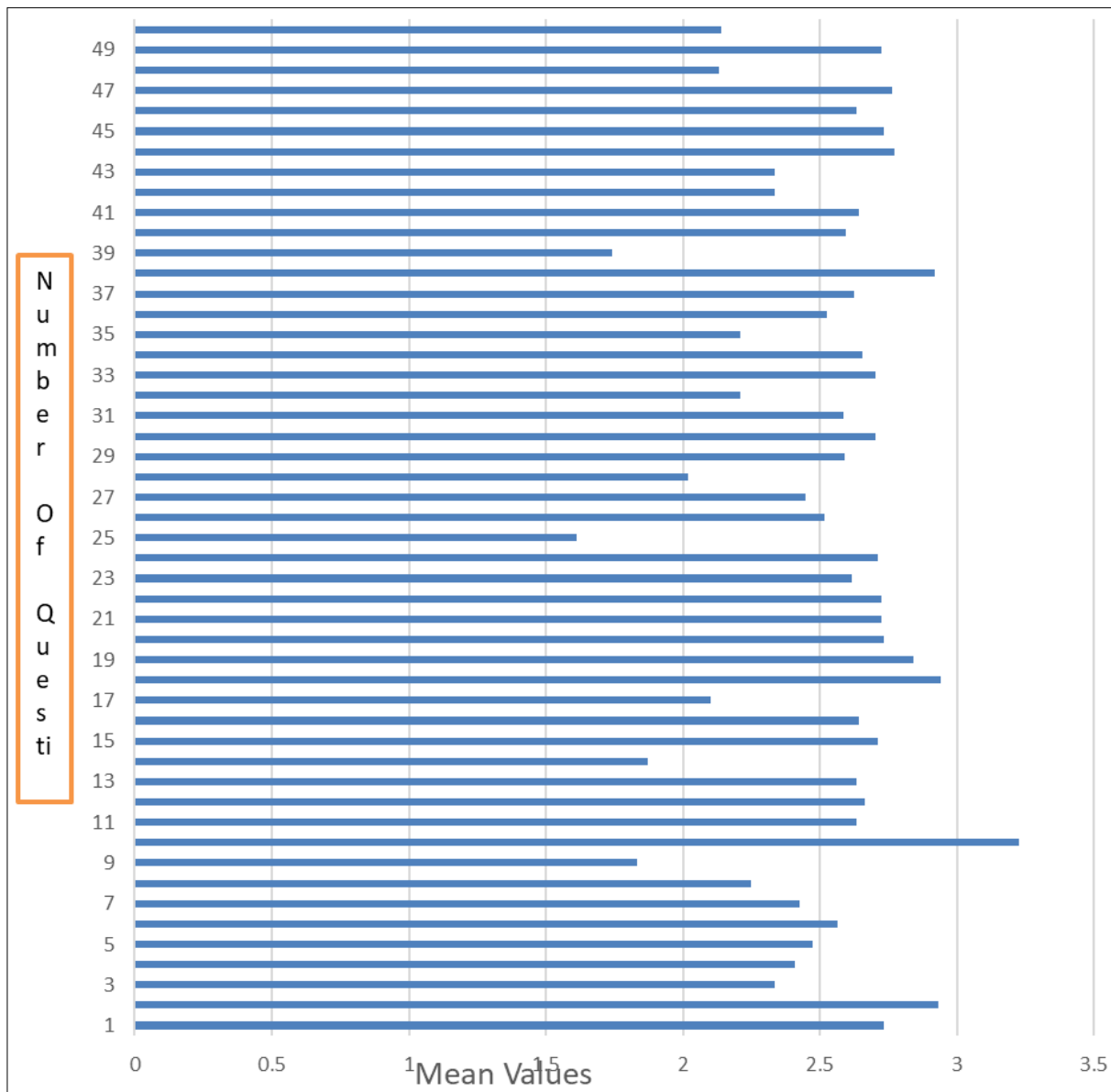
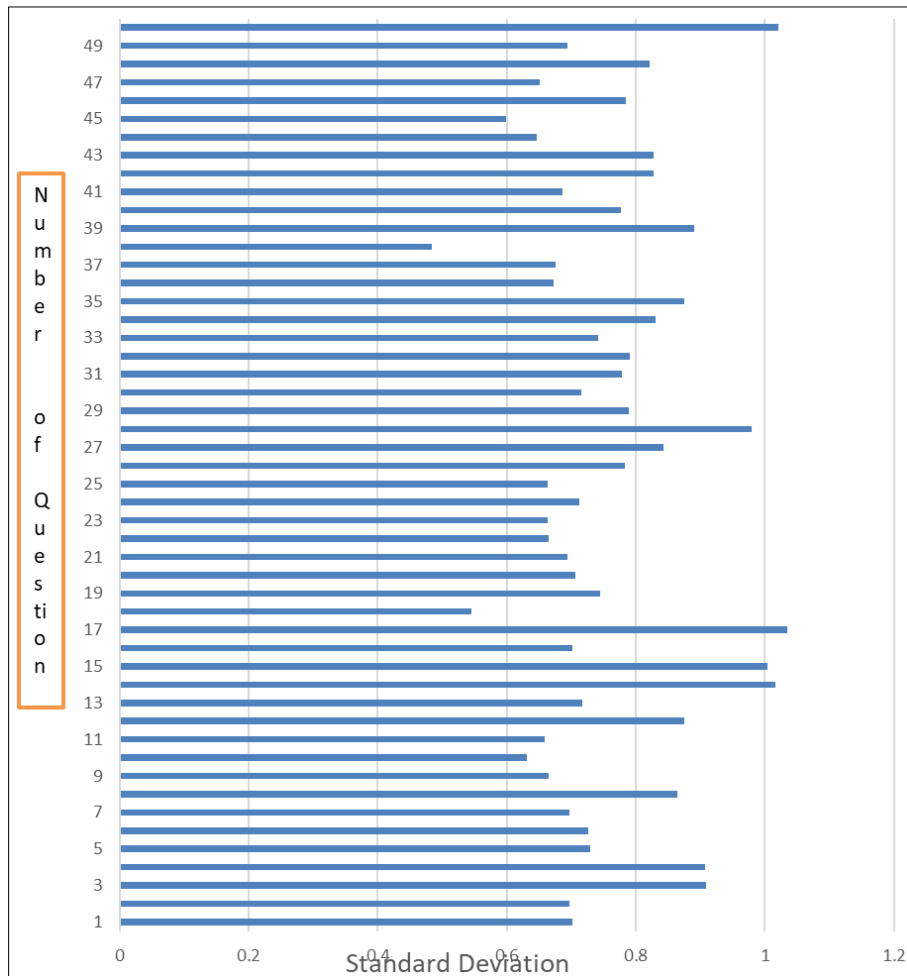


Chart 1: Shows mean DREEM scores of individual items for the undergraduate medical students



Chat 2: Shows the standard deviation of individual items for the undergraduate medical students

Discussion

DREEM inventory was used as a tool to study the perceptions of the students about their Educational Environment. The DREEM Questionnaire was sent to the undergraduate medical students of Government Medical College Surat, Kashmir Tibbia College Hospital & Research Centre, and Shree Swaminarayan physiotherapy college which had to be filled. Total number of students participated in this survey were 101 including 3 Males and 98 Females. Students scored highest in the item of confidence about passing and felt it towards positive side. Most of the student’s perception was that the teachers are knowledgeable. Similar findings were reported by Patil AA and Chaudhari VL [5].

Students are being encouraged to participate in class. The students scored significantly high in the item 18(The teachers help to develop practical skills) and 38 (Clear about the learning objectives of the course). Students felt that they were encouraged to be an active learner. Students also felt that teachers were authoritarian and they get angry. Similar findings were reported by Patil AA, and Chaudhari VL in their researchers studies. Students enjoy the course they rarely get bored in their courses. Students felt that the teaching overemphasizes factual learning and it is teacher centered

There is one limitation in the study tool used in this study that if provided fixed options; hence, some aspects that affect the Educational Environment of institutions might have been missed.

Conclusion

Improvement is required in some of the items of the educational environment at these institutions. The highest rated items were knowledgeable teachers, confidence about passing, clear about the learning objectives of the course and teachers help to develop practical skills. The most problematic items were authoritarian teachers, burdensome course content, disappointing experience and feedback by the teachers.

Conflict of interest: Nil

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