

“Analysis of dental students perceptions about educational environment in prosthodontics”

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Introduction

Educational environment research assesses what is happening in a medical school as well as it provides complete and detailed information on the education process, the results of which can be used to enhance students' satisfaction and achievement.^{1,2}

Environment is surrounding and everything that affect an organism during its lifetime. Learning Environment of an Institute is everything that is happening in the class-room / Department / Institution / University or it is the diverse physical locations, contexts & cultures in which students learn.

One of the factors influencing learning is student's characteristics & these include individual differences, student's previous learning experiences & current understanding of the subject.

The effect of these factors is to influence student's perceptions of their circumstances & the learning approach that is expected from them. Today, evaluation of the educational environment is an important element and need for both students as well as teachers. The DREEM questionnaire was used to evaluate the perceptions of students toward their educational environment.

This study was helpful in meaningful learning, which correlated positively with the student's perceptions of the educational environment, impacts on student's learning experiences and outcomes. It also influenced how, why, and what students learn.

Aim & Objective

To study Interns perceptions about educational environment in Department of Prosthodontics, at VSPM Dental College, Nagpur.

Hypothesis: It could be hypothesised whether the overall education environment within Prosthodontics Department of Institute employ a balanced or

favourable traditional lecture hall-based teaching and clinical fieldwork.

Materials & Method

Total 50 Interns of Summer & Winter batch, between the ages of 20 to 22 yrs. were randomly selected. The gender distribution was equal. All the students received an explanatory statement detailing the study and were informed that all data collected would remain anonymous.

Method

Institutional Ethical Committee has approved the protocol for the research project. It was a cross sectional study. Duration of study was 3-4 months. The DREEM questionnaire was distributed to interns and the staff not directly involved in the study, assisted the process and collected the completed questionnaires.

To conduct such evaluation across many sites, the most widely used contemporary development is almost certainly the Dundee Ready Education Environment Measure (DREEM) was used. It was developed by an international Delphi panel in Dundee, Scotland, UK. It is a worldwide, validated instrument that provides medical/ dental teachers with diagnostic help to measure the overall state of affairs in the learning environment of their college.

The DREEM questionnaire consists of 50 items; each is scored 0–4 on a five-point Likert scale (4= strongly agree, 3= agree, 2= unsure, 1= disagree, and 0= strongly disagree) 3. Negative items were scored in a reverse order so that high scores on these items indicate disagreement, i.e. a positive result. The base for the overall DREEM score is 200. The DREEM can also be used to identify more specific strengths and weaknesses within the education environment. The statements may also be subdivided to provide an indication of student perceptions of five major domains of educational environment, including **perception of learning** (12 items/max score 48), **perception of the teacher**(eleven items/max score 44), **academic self-perception** (eight items/max score 32), **perception of atmosphere** (12 items/max score 48), and **social self-perception** (seven items/max score 28).

Scores were compared across grouping variables. Data was converted into percentage of their respective subscales.

DREEM Item Scores (Questionnaire): 4= strongly agree, 3= agree, 2=unsure, 1=disagree, 0= Strongly disagree.

Results

Calculations done by: -Impact = Sum / Max. sum (200) × 100.

The global DREEM score of 140 / 200 indicated that overall interns have more positive than negative perceptions about learning.

Scores for all 5 DREEM sub- scales reflected positive perceptions by the Interns. From Table 6 & Graph 6, it was observed that Out of 50, majority interns had perceptions of learning (SPL) 81.7%, which indicates that the teaching in the Department was well focused & helped the interns to develop confidence & competence. The teaching over emphasized factual learning as well as encouraged interns to be an active learner.

Interns academic self-perception (ASP) was 76.8% shows that Learning strategies worked for them to

continue further. They learned a lot about empathy in the Dental profession & satisfied to choose appropriate career.

Their perception of atmosphere (POA) 73.9%, means interns concentrated well while working on patients in the clinics, because of comfortable atmosphere in the Department of Prosthodontics. Their doubts were cleared when asked, by the teachers, this way, the interns got many opportunities to develop inter personnel skills.

Social self-perception was (SSP) 73.1%. Interns agreed that there is a good support system for interns who get stressed. Their social life was good & accommodation area was also pleasant.

Intern's perception of teachers was comparatively less (PTO) 71.9. This may be because interns didn't like to point out their mistakes by the teachers/ teachers criticize their work. However, at the same time interns have mentioned that the teachers are knowledgeable, they have good communication skills with patients, teachers give clear examples while taking classes.

The following table mentions the details of this analysis: 5, 6, 7.

Table 1

Sr. No	Type of Perception	Impact	Conclusion
I.	Student's Perception of learning (SPL)	81.7%	Excellent
II.	Student's Perception of teacher (POT)	71.9%	Fairly good
III.	Student's Academic self-perception (ASP)	76.8%	Satisfactory
IV.	Student's Perception of atmosphere (POA)	73.9%	Satisfactory
V.	Student's Social self-perception (SSP)	73.1%	Satisfactory

$$\text{Impact} = \text{Sum} / \text{Max. sum (200)} \times 100$$

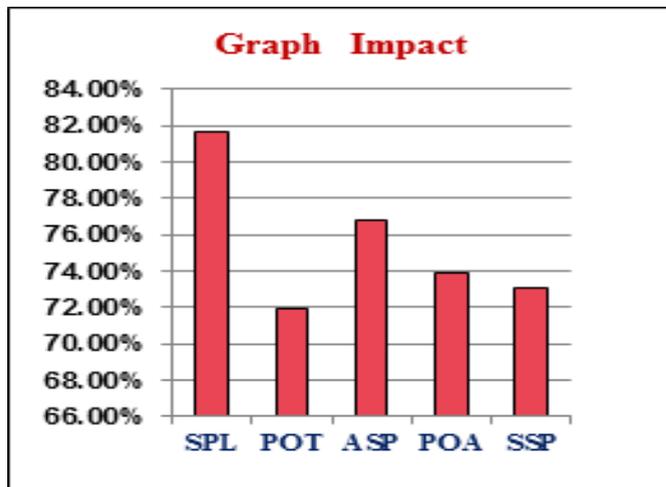
Student's Perception of learning = 150-170 Excellent

Student's Perception of the teacher = 120 – 150: Excellent

Student's Academic self-perception= 130 – 160: Excellent

Perception of atmosphere = 120 -150: Excellent

Social self-perception = 120 – 150: Excellent



Discussion

Learning environment means the culture of school or class and its presiding ethos & characteristics, including how students interact or treat with each other, as well as the way in which the teachers may organize the educational settings to facilitate learning.

The qualities & characteristics of a learning environment are determined by wide variety of factors like college or institution policies, governance structures & other features which are considered the important elements of learning environment.

The realistic assessment of such a vague factor & educational environment of an institute on a measurable scale is difficult. It is the summation of the perception of an individual student of different indicators factored in the study. Therefore an attempt to create & maintain a helpful environment for study, without compromising on quality of education is continuous & this can only be achieved only through student's feedback & course corrections by the institutions.

Educational environment is related between two main factors: Students and teachers. Factors affecting learning are: self-efficiency, task value, time & efforts, rehearsal & organization as well as elaboration & critical thinking.

Student's previous learning experience, their examination performance, preferred learning style, intrinsic motivation, desire to achieve and importance of learning in their future are main features.

Teachers role involve much more than simply standing in front of class room & lecturing. In fact even though the teacher spends majority of the day in the class room, the actual teaching component is only a part of their job. A teacher plays many roles like an analyzer, counsellor, evaluator, leader, tutor, disciplinarian, facilitator & so on.

The present study has provided useful information of interns posted in Department Of Prosthodontics. It is necessary to identify the gap between student's expectations & actual experiences. At the same time

there are differences between student's experiences at different stages of their learning which generally starts first year to final year. By the time these students reach at internship, they finish their studies as well as experienced the environment of learning in different departments of the institute. Therefore interns have enrolled for the present study. The global DREEM score of 140/ 200 indicated that overall interns have more positive than negative perceptions about learning. Scores for all 5 DREEM sub- scales reflected positive perceptions by the Interns. This positive perception is indicative of overall favourable educational environment in the Department of Prosthodontics of the VSPM DCRC, Nagpur. However, some areas (POT, POA & SSP) required corrective measures to ensure high quality learning environment for the students. These results can be attributed to many factors for different domains. These may vary from individual intern's response at the time of solving the questionnaire.

The present study findings are similar to the study done by HS Kiran, Basavana H Gowdappa. In their study, the overall DREEM score for Medical School during the academic year for the final MBBS and internship batch was 120/200 (n = 224), which showed that the students' perceptions were more positive 4. In the present study, for POT, has lowest impact. The impression that teachers are knowledgeable and well-prepared for their classes but are too authoritarian and strict has also been stated by Hamid Bakhshialiabad et al in their study of Students' perceptions of the academic learning environment in seven medical sciences.

This shows that there is a need to create a friendly/ agreeable environment where in teaching-learning process becomes a joy rather than a stress for both students and teachers. To enhance co-ordination among various departments in teaching inter-related topics. To develop problem solving and critical thinking abilities among students.

The college environment is not the only source of stress; which is also influenced by the students' personality type, sex, sociocultural differences, and emotional intelligence, etc. A formal or informal support system could be developed so as to make the students more "positive" and more in "control of their education", which would help alleviate their stress and make the learning experience more enriching and fulfilling.⁵

Limitations of the study

In the present study, sample size is comparatively less. Study was carried out in only one Department.

Scope for further studies

Further studies in the same Department, with other academic years can also be carried out. It can be performed in different academic years for other Departments and afterwards in the whole Institute and finally compared with different Institutes of the same city / different cities.

Today, the growing use of online technologies for teaching and learning is renewing the demand for better understanding of student. Still the lecture hall /class room teaching in the Institute is equally important & it will remain all the time, as there is direct communication of student & teacher. DREEM in its current format completely appropriate for undergraduate students & concentrate more on classroom teaching.

Impact / Implications

This approach was agreed by interns to make their perceptions of learning positively and also their perceptions of the teachers was moved in the right direction.

Conclusions

The positive perception of students towards their education and learning is indicative of overall favourable educational environment in the Department of Prosthodontics (The global DREEM score of 140 / 200).

Conflict of interests: Nil

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