

Perception of Educational Environment among BSc Nursing Students

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ABSTRACT

An observational and analytical study was carried out to assess the perception of educational environment among B.Sc. nursing students at a selected college of nursing, in Ernakulam district. Objectives of the study were, to assess the perception of educational environment among B.Sc. nursing students, to compare the perception of educational environment among first, second, third and fourth year B.Sc. nursing students, to find out the relationship between the measure of educational environment and academic score among B.Sc. nursing students and to identify the weaker and stronger areas of educational environment. Data were collected from 248 undergraduate nursing students of the college by using total enumerative sampling. Dundee Ready Educational Environment Measure (DREEM) inventory was used to get the responses from the students. The total mean score on the 50 item DREEM inventory was 121.48 out of maximum of 200 which showed a more positive perception than negative. No significant difference was seen in the perception score among first, second, third and fourth year B.Sc. nursing students. There was no significant correlation between perception score of educational environment and academic score. Students' perception of learning and their teachers, their academic self perception, social self perception and the perception of atmosphere were all positive. There were four areas identified as problematic requiring remediation. Implication of the study is to design and maintain a supportive environment in addition to planning strategies to remedy problematic elements in the educational environment.

Keywords- perception, educational environment, academic score, DREEM inventory.

INTRODUCTION

Educational environment is vital in determining the success or failure of any institute¹. From the day students enter into the institute they face a change in environment. A positive environment leads to achievements, fun and engagement in learning while a negative one would hinder their accomplishments. Student perception of education environment influenced the different cultural background of students, educational facilities available to them, quality of the faculty, curriculum, and students'

expectation apart from other circumstances of the university². This highlights the importance of assessing students' perception of their educational environment with a view to improve education and student learning.. There is documented association between educational environment and the students' performance and their satisfaction².

Need and significance

Learning is influenced by the way in which the students go about learning and studying as well as conduciveness of the learning environment³. A good learning environment is vital for the delivery of quality training⁴. Curriculum is considered to be the most holistic, inclusive and comprehensive entity and notion in education⁵. Curriculum's most significant manifestation and conceptualization is the environment (educational

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and organizational) which embraces everything that is happening in the medical college².

Nursing as a profession is currently compelled to address the challenges posed by globalization, and to respond by forming international alliances that will facilitate knowledge sharing in order to improve human health^{6, 7}. In nursing education nurse educators have paid particular attention to students' perception of the learning environment⁸.

To develop global nursing education standards as a strategy for strengthening nursing and midwifery in order to achieve the Millennium Development goals(MDGs) for health, there is a need to move beyond a focus on local and national health care problems to ensure that all nurses are prepared to address local, national and global health needs. So a planned, structured learning environment will be able to prepare the nursing workforces who are ready to provide care to diverse population in multiple settings in any part of the world.

Statement of the problem

A study to assess the perception of educational environment among B.Sc nursing students in a selected college of nursing in Ernakulam district.

Objectives

- 1) To assess the perception of educational environment among B.Sc nursing students.
- 2) To compare the perception of educational environment among first, second, third and fourth year B.Sc nursing students.
- 3) To find out the relationship between the perception score and academic score among B.Sc nursing students.
- 4) To identify the weaker and stronger areas of educational environment.

Assumptions

- Students are the best evaluators of the educational environment.
- Evaluation of the educational environment helps to improve the quality of teaching-learning process.

Hypothesis

- **H₁**: There is significant difference in perception among students of first year, second year, third year and fourth year B.sc nursing students.
- **H₂**: There is a significant relationship between perception of educational environment by students and their academic performance.

Conceptual frame work

The conceptual framework adopted for the study was based on Moos theoretical frame work – Conceptualizations of human environment. According to Moos, each human environment—irrespective of the type of setting (e.g. psychiatric ward, correctional institution, military training, classroom, therapeutic group, work environment or family setting)—can be described by common sets of dimensions.⁹ Moos conceptualized these sets of dimensions in three broad domains:

1. Personal development or goal direction dimensions,
2. Relationship dimensions,
3. System maintenance and system change dimensions,

Given that Moos' theoretical framework has been validated in different contexts, including education, investigators chose to test the applicability of this framework for the nursing educational environment.

Reviews related to the perception of educational environment

A descriptive study was done to assess the nursing students perception of their educational environment based on DREEM model in an Iran university.. The Dundee Ready Education Environment Measure(DREEM) was used to collect data along with the students demographic characteristics. The overall mean DREEM score for their nursing students was found to be 114.3/200, which indicated a more positive than negative educational environment¹⁰

A quantitative cross sectional survey design was done among 107 nursing students to assess learning environment in Kulliyyah (Faculty) of Nursing, International Islamic University Malaysia using

DREEM questionnaire. The overall DREEM score is 120.12 out of a maximum 200, from four groups of nursing. The Year One group had the highest score with a mean of 132.06. The year two, three and four group students overall mean DREEM score were in the range of 105.83 to 112.20. The finding noted reduced scores in the senior years. The students perceptions in Year One could have been high initially, and dissatisfaction may have crept in as the novelty of joining a nursing student body wore off ¹¹.

A cross sectional study was conducted to assess students perceptions of educational climate in a new dental college using the DREEM tool. The most highly rated items were that teachers were knowledgeable, students were encouraged to participate class, and they have good friends in the course. The problematic area highlighted were emphasise on factual learning, students irritate their teachers and cheating is rampant in this course¹³.

Methods and Procedures

A cross sectional study was undertaken to assess the perception of educational environment using quantitative approach. Convenience sampling was used to select the sample and total enumerative sampling technique was used to select the study subjects. The sample size of the study was 248.

A modified version of Dundee Ready Educational Environment measure (DREEM) developed by Rott and her colleagues was used to measure the educational environment of the present study. The DREEM questionnaire consist of 50 statements. For each

statement, a Likert scale is used where 4 = strongly agree, 3 = agree, 2 = uncertain, 1 = disagree, 0 = strongly disagree. The overall possible maximum score on the DREEM was 200 and the minimum possible score was 0 ³.

Accordingly 0-50, 51-100, 101-150 and 151-200 were considered very poor, many problems, more positive than negative and excellent, respectively. Items with a mean score of 3.5 or more are true positive points. Items with a mean of 2.0 or less should be examined more closely, as they indicate problem areas. Items with a mean between 2.0 and 3.0 are aspects of the educational environment that could be enhanced or improved

In the present study, for the item numbers 11,12,19,23,41,42 the mean score of 2.0 or less indicates positive; score between 2.0 and 3.0 indicates the aspects of educational environment that could be enhanced or improved; the mean score of 3.5 or greater indicates problematic area which should be examined very closely. Academic performance/ academic score was calculated from the percentage of total marks secured by the student for the previous university examination or in sessional examinations

RESULTS

When the perception score was categorized into excellent, more positive than negative, plenty of problems and very poor, 2% of the students reported excellent perception, 91% of the students reported more positive perception and only 7 % reported plenty of problems. There were no students in the category of who reported the learning environment as very poor (figure 1).

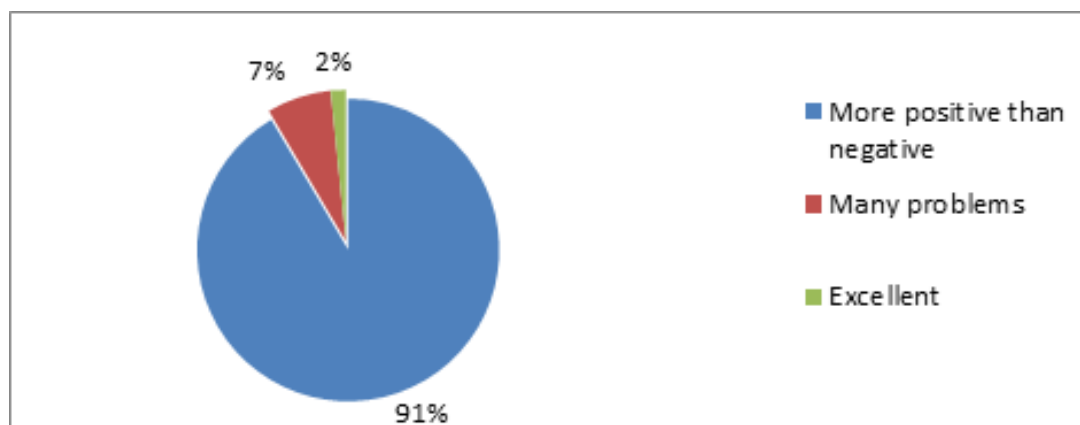


Figure 1- Pie diagram showing distribution of students as per the perception score

Table 1. Frequency, mean and standard deviation and of percentage perception score of students in each domain **n=248**

Domain	Descriptive Statistics				
	Number of items	Maximum score	Mean	Std. Deviation	Percentage score
Student's perception of teaching /learning(D1)	12	48	28.08	4.87	58.5
Student's perception of teachers(D2)	11	44	27.93	4.96	63.47
Student's academic self perception(D3)	8	32	20.69	4.20	64.65
Student's perception of atmosphere(D4)	12	48	27.91	5.12	58.14
Student's social self perception(D5)	7	28	17.51	2.99	62.53
Grand Total	50	200	121.48	14.73	60.74

The above table shows the DREEM domain, total maximum score, mean score, standard deviation and percentage score of all respondents. The student's perception of learning was 28.08/48 (58.5 %) that is more positive perception, student's perception of teachers was 27.93/44(63.47 %) moving in right direction, student's academic self perception was 20.69/32(64.65%) that is feeling more on positive side. The total mean score was 121.48 with SD 14.73 where the educational environment can be interpreted as more positive than negative.

Table 2: One way ANOVA table showing frequency, mean, standard deviation, F value, P value of perception score among 1st year, 2nd year, 3rd year and 4th year BSc Nursing students.

Class	n	Mean	Std. Deviation	F value	P value
1	70	122.44	16.254	0.711	0.55
2	60	119.10	13.927		
3	58	121.83	11.109		
4	60	122.42	16.685		
Total	248	121.48	14.730		

Results show that there is no statistical significant difference in the score among these groups ($p = 0.55$). So H_1 was rejected.

To find out the relationship between the measure of educational environment and academic score among nursing students, Pearson's product moment correlation

coefficient was estimated as data follows normality. It is observed that there is a weak positive correlation ($r = 0.11$) between these two variables (Table 3, Figure 2), which is found to be statistically not significant ($p = 0.07$). Hence H_2 was rejected

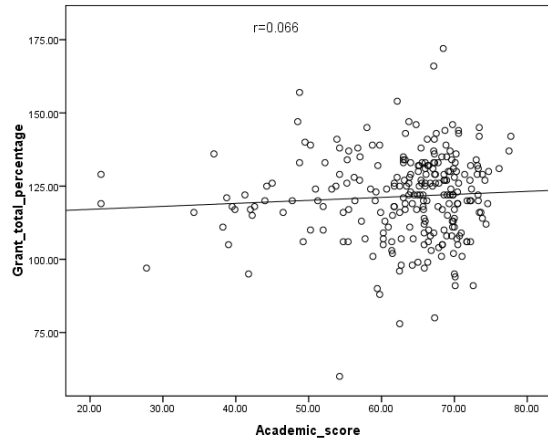


Figure 2: Scatter plot showing the correlation between perception score and academic score of study subjects

Table 3. Mean, standard deviation correlation coefficient and p value – showing the relationship between perception score and academic score

Variables	Mean	Standard Deviation	R Value	P Value
Perception Score	1.21	14.73	0.11	0.07
Academic score	63.04	9.55		

The fourth objective of the study was to identify the weaker and stronger areas of the educational environment. Based on the mean scores obtained on each item the interpretations were made as positive, to be examined very closely/ to be improved and problematic. Thus the positive areas are identified as strengths and problematic areas as weaknesses of the institution.

The strengths of the institution identified were

1. The teaching is not teacher-centered
2. The teaching does not over-emphasizes factual learning.
3. The teachers do not ridicule the students.
4. The students do not irritate the teachers.
5. Students do not find the experience disappointing.
6. Cheating is not a problem in this school.

And all other forty areas need to be enhanced

The weaknesses identified were

1. Long term learning is emphasized over short term.
2. Students are not able to memorize all they need.
3. Students seldom feel lonely.
4. Students are rarely bored on this course.

DISCUSSION

The present study had a mean perception score of 121.48 which was comparable to the results of other studies from medical colleges and nursing institution as reported in the literatures^{10,11}. Based on the interpretation suggested the educational environment of this institute is perceived as more positive than negative by the students.

There was no significant difference in mean score among 1st, 2nd, 3rd and 4th Year B.Sc Nursing students because all the students are sharing one common educational environment.

The study also showed no correlation between perceptive score and academic score of the students. The reason may be that the study was done in one setting. If multiple settings were taken for the study, there might have been a correlation between perception score and academic performance since the literature says that the educational environments affect the students' performance and satisfaction¹².

The students reported six true positive areas and 4 problematic areas. The problematic areas need immediate remediation. The study was an eye opener to the teaching faculty and administrators of the institution.

CONCLUSION

As learning environment affects student motivation and achievement, it is important to get feedback from the students on how they are experiencing their learning environment. Some grey areas were identified that require remedial measures to ensure and to maintain high quality learning environment for the students.

Implication and Recommendations of the study

Based on the results of the present study there is scope for improvement regarding student boredom. Teaching should be conducted in a more creative

manner so that student will not get bored in the class. Teachers should be more approachable and flexible. Critical thinking should be encouraged in the class room. Teachers should correlate the facts in the books with real case scenario and should give students ample opportunities to apply their knowledge in the clinical setting. Teachers should help students in the goal setting during the course. Overall nursing institution should be proactive in providing adequate resources to support students mentally and academically throughout the course.

Conflict of Interest- None

Funding- Self

Ethical Clearance- Approval from the Chief Executive Officer of Malankara Orthodox Medical Mission was obtained for the conduct of the study. Approval from the scientific committee of College of Nursing was also obtained. Informed consent was obtained from the nursing students by explaining the purpose of the study. Subjects were selected using total enumerative sampling technique. Confidentiality of the information was assured to the study subjects.

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