

ORIGINAL ARTICLE

Measuring students' perceptions about educational environment of an under graduate rehabilitation sciences curriculum in Riphah College of Rehabilitation Sciences- Pakistan by means of DREEM's inventory

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ABSTRACT

Objective: The objective of the study was to establish the perceived strength of educational environment of Riphah College of Rehabilitation Sciences Islamabad Campus.

Study Design: A Descriptive Study.

Place and Duration of Study: Riphah College of Rehabilitation Sciences, during May and June 2013.

Materials and Methods: The descriptive study was conducted in the Riphah College of Rehabilitation Sciences, during the month of May, June 2013. The 50 items inventory was selected for analyzing and assessing the educational climate and a sample of 142 students from first and final year of Doctor of Physical Therapy were recruited.

Results: A total of 142 questionnaires were completed, 85 from first year, 57 from final semester. The mean score of inventory was 130/200 and overall mean was 2.60. The mean score for "perception of learning" was 2.70; "Perception of course organizers" was 2.58, "Self perception about Academic" was 2.76, "Perception of atmosphere" was 2.58 and "Social self perception" was 2.36.

Conclusion: It is concluded that overall environment of Riphah College of Rehabilitation Sciences is more positive. There is span for improvement and augmentation of existing educational environment to provide a sound platform for proper learning.

Key Words: Educational environment, Study perception, Learning perception, Social self perception.

Introduction

There is important and vital role of educational environment for valuable student's learning. The perception of students about the learning environment has significant role in the attitude and progress in academic performance.¹ The curriculum has major impact in the perception of students and also has dynamic effect on the growth of students.² The inventory will judge the different areas of weakness and strength of educational environment.³ It also emphasizes the first year student attitude towards the new setup and also determines the relationship of teacher and students.⁴ The student's perception about the existing curriculum and role in the educational environment will determine the strength of environment.⁵

The role of DREEM in indentifying the educational environment is important and this instrument is valuable for the measurement of educational environment of institution.⁶ The educational environment of first year and final year is also

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measured and a difference in both classes discussed in perspective of students perception about teacher and social environment.⁷ Before entering in a new system the parents and students should be aware of the educational environment other than the social climate of institution.⁸ The effective environment also determines the level and importance of curriculum of the institution. The curriculum has significant importance in the development of a proper learning environment and the update curriculum plays an effective and crucial role in learning.⁹ The role of learning and the level of educational climate changes for students, so it is also important to note down the changes in curriculum and learning style of students.¹⁰

The DREEM inventory measure the change in the perception of students regarding the complete educational environment including the teachers, course, atmosphere and social factors. It also highlights the areas of weaknesses and strength and provides a logical evidence to make a plan of enhancement. It also used to detect the changes in the existing educational environment from time to time and point out the areas of improvement.¹¹ The main objective of this research work was to find out the student' perceptions about the environment of education of Riphah College of Rehabilitation Sciences through DREEM inventory.

Materials and Methods

The descriptive research work was executed in the Riphah College of rehabilitation Sciences, during the month of May, June 2013. The 1st year and final year semester DPT students were asked to spare 20 minutes to fill the technique. The DREEM was chosen for collection of statistics to evaluate the educational climate of Riphah College of rehabilitation Sciences.³ The inventory has 50 items regarding the analysis of educational environment. The criteria used for scoring was “4 to 0 from Strongly Agree to Strongly Disagree. However 9 of the 50 items number (“4: 8: 9: 17: 25: 35: 39: 48 and 50”) are negative questions and must be scored for 0 to 4 from Strongly Agree, Strongly Disagree. The following is the guide to interpret: “0-50= Very Poor, 51-100= Plenty of Problems, 101-150=More Positive than Negative and 151-200=Excellent”. The Mean criteria: 3.5 to 4= Real Positive points, 2-3= Climate that could be enhanced and Below 2= Problems areas. There are five domains of inventory which measure the perception of learning, teachers, academic, atmosphere and social perceptions. After data collection a descriptive analysis was done on SPSS 17.

Results

The total 142 questionnaire were completed 85 from first year, 57 from final semester. The total mean score of DREEM was 130/200 and overall mean was 2.60. The highest mean 2.76 for academic self perceptions, 2.70 perception of learning, 2.59 for perception of course organizers, 2.58 for perception of atmosphere and the lowest one are 2.36 for social self perceptions. Table I shows the mean of different subscales of DREEM. The table II shows the mean score and the criteria of measurement. The criteria of Mean is 3.5 -4 = Real Positive points, 2-3= Climate that could be enhanced, below 2= Problems areas.

Table I: Mean score of different sub Scales

Scales	Mean	Criteria
Students' perceptions of learning	2.70	2-3= Climate that could be enhanced
Students' perceptions of teachers	2.58	2-3
Students' academic self-perceptions	2.76	2-3
Students' perceptions of academic atmosphere	2.58	2-3
Students' social self-perceptions	2.36	2-3
Full DREEM inventory	2.60	2-3

Table II: Average Score of different sub scales

Scales	Score	Status
Students' perceptions of learning	4534/140=32.38	25-36= A more Positive Perception
Students' perceptions of teachers	3856/140=27.54	23-33=Moving in the Right Direction
Students' academic self-perceptions	3022/140=21.58	17-24=Feelings more on the positive side
Students' perceptions of academic atmosphere	4522/140=32.3	25-36=A more positive attitude
Students' social self-perceptions	2321/7= 16.57	15-21=Not too bad
Full DREEM inventory	130/200	More positive

Discussion

The overall result of the educational environment at Riphah College of Rehabilitation Sciences is positive that can be enhanced. It shows that there is room for enhancement in all sub domains of educational environment. The total score was 130/200 which is better than Nigerian medical school 118/200 and equal to Nepalese health professional 130/200³ and one of study in UK score 132.5/200.⁷ the result shows the positive perception about the learning context and these are associated with the learning outcomes discussed Meyer and colleagues.¹² the findings of the study identified that there is a positive climate of education and all components of DREEM have shown almost positive values. Although some individual components have different level of score, these finding correlate with the finding of Pimparyon et al. for academic achievers. The academic achievers have extensively good score on teacher's perception, academic perception of atmosphere, perception about society and total DREEM score.¹³ There is some difference observed in the perception of different sub domains of DREEM in first and final year students. There is slight change in the critical attitude when the students progressed to final year.¹⁴ The overall level of perception about the faculty members were positive in the students, although in detail some individual item there is some perception about the authority of teacher were negatively skewed.¹⁵ The complete analysis described that the all properties of DREEM have significant role in the

educational environment and in this study all components were skewed towards positive but these can be enhanced through increasing the quality of educational climate.¹⁶

Although the perception about the teacher was positive and teacher are knowledgeable and competent but one of the components of authoritarian was negatively skewed. Such evidences can create some problem in the learning process and educational environment and should be resolved with the faculty training. Teaching must be promoted as the learner center and it should be some reward oriented.⁷ The score of social perception is to some extent at low level in the finding of study, the stress, boring and the tiredness was some factors that decrease the scores of sub domains. The same finding were reported in Greek dental school which have lowest score on social perception.¹⁷

A study on Malaysia faculty of nursing the total DREEM score was 120/200 and the overall results were more positive, the same results were identified in our study. They have eight items having the mean score less than 2 shows they need special care. The total 6 item that have less than 2 mean score in this study, they should be planned to be managed on priority basis.¹⁸

Conclusion

The educational environment of Riphah College of Rehabilitation Sciences Islamabad Campus is more positive. There is room for improvement and enhancement of existing educational environment to provide a sound platform for proper learning. More emphasis and importance should be given to weak points to improve the educational climate. The results of this study can be used to guide strategic planning and implementation according to available resources. Proper feedback is necessary to maintain the climate positive so data should be collected on annual basis.

REFERENCES

1. Whittle S, Whelan B, Murdoch-Eaton D. D R E E M a n d beyond; studies of the educational environment as a means for its enhancement. *Educ Health*. 2007;20(1):7.
2. Till H. Identifying the perceived weaknesses of a new curriculum by means of the Dundee Ready Education Environment Measure (DREEM) Inventory. *Medical teacher*. 2004;26(1):39-45.
3. Al-Hazimi A, Zaini R, Al-Hyiani A, Hassan N, Gunaid A, Ponnamparuma G, et al. Educational environment in traditional and innovative medical schools: A study in four undergraduate medical schools. *EDUCATION FOR HEALTH-ABINGDON-CARFAX PUBLISHING LIMITED-*. 2004;17(2):192-203.
4. Sobral DT. Medical students' self-appraisal of first-year learning outcomes: use of the course valuing inventory. *Medical teacher*. 2004;26(3):234-8.
5. Denz-Penhey H, Murdoch J, Murdoch HD-PJC. Is small beautiful? Student performance and perceptions of their experience at larger and smaller sites in rural and remote longitudinal integrated clerkships in the Rural Clinical School of Western Australia. *Rural Remote Health*. 2010;10:1470.
6. Wang J, Zang S, Shan T. Dundee ready education environment measure: Psychometric testing with Chinese nursing students. *Journal of advanced nursing*. 2009;65(12):2701-9.
7. Bassaw B, Roff S, McAleer S, Roopnarinesingh S, De Lisle J, Teelucksingh S, et al. Students' perspectives on the educational environment, Faculty of Medical Sciences, Trinidad. *Medical teacher*. 2003;25(5):522-6.
8. Mayya S, Roff S. Students' perceptions of educational environment: a comparison of academic achievers and under-achievers at Kasturba Medical College, India. *EDUCATION FOR HEALTH-ABINGDON-CARFAX PUBLISHING LIMITED-*. 2004;17:280-91.
9. Abraham R, Ramnarayan K, Vinod P, Torke S. Students' perceptions of learning environment in an Indian medical school. *BMC medical education*. 2008;8(1):20.
10. Edgren G, Haffling A-C, Jakobsson U, Mcaleer S, Danielsen N. Comparing the educational environment (as measured by DREEM) at two different stages of curriculum reform. *Medical teacher*. 2010;32(6):e233-e8.
11. Mojaddidi MA, Khoshhal KI, Habib F, Shalaby S, El-Bab ME, Al-Zalabani AH. Reassessment of the undergraduate educational environment in College of Medicine, Taibah University, Almadinah Almunawwarah, Saudi Arabia. *Medical teacher*. 2013;35(1):39-46.
12. Meyer J, Parsons P, Dunne T. Individual study orchestrations and their association with learning outcome. *Higher Education*. 1990;20(1):67-89.
13. Pimparyon SMC, S. Pemba, S. Roff, P. Educational environment, student approaches to learning and academic achievement in a Thai nursing school. *Medical teacher*. 2000;22(4):359-64.
14. Al-Ayed I, Sheik S. Assessment of the educational environment at the College of Medicine of King Saud University, Riyadh. *East Mediterr Health J*. 2008;14(4):953-9.
15. Paukert JL, Richards BF. How medical students and residents describe the roles and characteristics of their influential clinical teachers. *Academic Medicine*. 2000;75(8):843-5.
16. Ostapczuk M, Hugger A, de Bruin J, Ritz-Timme S, Rotthoff T. DREEM on, dentists! Students' perceptions of the educational environment in a German dental school

- as measured by the Dundee Ready Education Environment Measure. *European Journal of Dental Education*. 2012;16(2):67-77.
17. Kossioni A, Varela R, Ekonomu I, Lyrakos G, Dimoliatis I. Students' perceptions of the educational environment in a Greek Dental School, as measured by DREEM. *European Journal of Dental Education*. 2012;16(1):73-8.
18. Said NM, Rogayah J, Hafizah A. A study of learning environments in the Kulliyah (Faculty) of Nursing, International Islamic University Malaysia. *The Malaysian journal of medical sciences: MJMS*. 2009;16(4):15.
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