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ORIGINAL ARTICLE

Association of perception of educational environment and self-esteem in students at medical college.

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ABSTRACT… Objectives: To verify the association of perception of educational environment and self-esteem of third year and fourth year students at Sahiwal Medical College. **Study Design:** Correlational study. **Setting:** Sahiwal Medical College, Sahiwal. **Period:** February 2019 to September 2019. **Material & Methods:** Convenient nonprobability sampling technique was used. All the students of third and fourth year MBBS were included. Students migrated from other medical colleges and who did not give consent were excluded. Rosenberg self-esteem scale questionnaire was used to measure self-esteem of students. Dundee Ready Educational Environment Measure (DREEM) Scale questionnaire was used to measure student's perception of Education Environment. Spearman's rank-order correlation statistics was computed to determine association between self-esteem and perception of educational environment. **Results:** There were 97(49.5%) third year and 99(50.5%) fourth year students. There were 68(34.7%) male and 128(65.3%) female students. Self-esteem score was less than 15 in 36(18.4%) students while score was 15 and above in 160(81.6%) students. Mean DREEM score was 108.34±24.02. Correlation of DREEM score with Rosenberg self-esteem score was 0.306 at significance level of 0.000. Students' perception of teaching was the lowest scored subscale (50.9%) and students' academic self-perception was the highest scored subscale (58.21%). **Conclusion:** Students had high self-esteem and positive perception of educational environment. There was a positive correlation between perception of educational environment and self-esteem of students. An insight about the strengths and weakness of the educational environment was provided.

Key words: Educational Environment, Medical Student, Perception, Questionnaire, Self-esteem.

INTRODUCTION

There are many factors that can reflect the effectiveness of educational programme.[1] Educational environment in an institute is one of such factors. Students' behaviour, academic progression, knowledge, skills and attitude are influenced by environment of an educational institute.[2] Curriculum can be managed effectively and students coming from diverse cultural and social backgrounds can be helped effectively when educational environment is given due consideration. Educational environment has great impact on self-esteem of students. In turn self-esteem predicts academic outcomes, marriage success and satisfaction with life.[3] Self-esteem is a person's subjective feeling of his worth.

The label perception means the way in which students interpret themselves, their surroundings, ways of discretion, sentiments, working in educational environment and their gratification with occupation of their liking.[4]

Sociologist Dr. Morris Rosenberg developed Rosenberg self-esteem scale.[5] This scale uses a score of 0-30. A score of less than 15 is indicative of low self-esteem. There are ten items in Rosenberg self-esteem scale. This scale is considered reliable and valid tool for the assessment of self-esteem all over the world.[6,7,8]

Educational environment consists of all human and inanimate objects that interact with students and influence their academic performance in an

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educational institution. So, we can include faculty, administrative staff, buildings, playground of the institute, classrooms, library, auditorium, mosque in the premises of a medical college, learning in the classroom, tutorials and clinical rotations, interactions with fellow students, extracurricular and cocurricular activities, culture, social networks and students themselves.[9] The most realistic way to find out the strengths and weaknesses of the educational environment is students' perception. Students feedback gives a unique opportunity to the policy makers to change their decisions, rectify deficiencies and to build up momentum. The most famous and widely used measuring tool for the educational environment is Dundee Ready Educational Environment Measure (DREEM).[10]

Although educational environment has been widely studied all over the world and in Pakistan as well[11]; Unique context of Sahiwal Medical College demands its educational environment to be studied. It is important to evaluate whether students of Sahiwal Medical College are satisfied or not with their educational environment and what is the level of their self-esteem. Until existing educational environment is studied, dream of becoming better teaching and learning institution that nurture high levels of self-esteem cannot be fulfilled.

Objective of the study is to verify the association of perception of educational environment and self-esteem of third year and fourth year students at Sahiwal medical college.

MATERIAL & METHODS

This correlational study was conducted on medical students of third year and fourth year MBBS at Sahiwal Medical College, Sahiwal. Duration of the study was six months from February 2019 to September 2019. Universal sampling technique was used. Students who had been migrated from other colleges and who did not give consent to participate were excluded from the study. Non-probability Convenience sampling-technique was used. Institutional review board approval was sought vide letter number 51/DME/SLMC/SWL dated 03/12/2018.

DREEM questionnaire, Rosenberg self-esteem scale and demographic questionnaire were provided to the students. Students were introduced about the purpose of that activity being solely research. Students were assured that their participation would be on volunteer basis and their response would not affect their future progress and results. Students were required to sign informed consent.

Questionnaires were administered at the end of lectures in time-tabled slots. The research participants were needed to fill up the questionnaires. Twenty minutes were given to the students to respond to the questionnaire.

DREEM scale questionnaire consists of 50 items. DREEM items are statements encompassing different aspects of environment in a medical college. It is Likert type scale with five points from strongly agree to strongly disagree. Maximum score of DREEM scale is 200. Score of 151-200 indicate excellent environment, score of 101-150 indicate more positive than negative environment, score of 51-100 indicate many problems in the environment and score of 0-50 indicate very poor environment.

These 50 items are sub-divided into five subscales namely students perception of learning (SPL), Students perception of teaching (SPT), Students' academic self-perception (SASP), Students perception of atmosphere (SPA), Students social self-perception (SSSP).

Rosenberg self-esteem uses a scale of 0-30. There are ten items in Rosenberg self-esteem scale. It is Likert type scale with four points from strongly agree to strongly disagree. A score of less than 15 is indicative of low self-esteem.

Data from DREEM questionnaire, Rosenberg self-esteem scale questionnaire and demographic questionnaire were entered in the statistical package for social sciences version 23 to do statistical analysis.

Demographic characteristics of students like gender and year of study were presented as

frequency and percentages. Age was presented as mean and standard deviation. Frequency and percentage were calculated for interpretation of DREEM score. DREEM score and subscales scores were presented as mean and standard deviation. Internal reliability was calculated for DREEM score by using Cronbach's alpha statistics.

Frequency and percentage were calculated for interpretation of score of Rosenberg scale. Internal consistency of Rosenberg scale was calculated by using Cronbach's alpha.

To determine association between perception of educational environment and self-esteem, Spearman's rank-order correlation statistics was computed. p value of less than 0.05 was taken as statistically significant.

RESULTS

This prospective correlational study was conducted in Sahiwal Medical College Sahiwal. Questionnaire were distributed to 217 students. 196 students returned completed questionnaire. Response rate was 90.32%. Out of these 196 students who returned filled proformas there were 97(49.5%) third year students and 99(50.5%) fourth year students. There were 68(34.7%) males and 128(65.3%) females.

Mean Rosenberg self-esteem score was 17.98±4.24. Cronbach's Alpha reliability statistics for Rosenberg's self-esteem scale was 0.773 (acceptable). Mean Rosenberg self-esteem score of male and female students was 18.54±4.06 and 17.69±4.32 respectively. Student's Self-esteem grading is shown in Table-I.

Mean DREEM score in the current study was 108.34±24.02. Cronbach's Alpha reliability statistics for DREEM scale is 0.917. It shows excellent reliability and internal consistency of the DREEM scale. Interpretation of DREEM score in shown in Table-II.

Mean score and percentage score of DREEM, SPL, SPT, SASP, SPA and SSSP are given in Table-III.

Self-esteem Score	Grading		Frequency (Percentage)	Total
Less than 15	Decreased Self-esteem	0-7 (Very Low)	2 (1.0%)	36 (18.3%)
		8-14 (Low)	34 (17.3%)	
15-30	Elevated Self-esteem	15-23 (High)	139 (70.9%)	160 (81.6%)
		24-30 (Very High)	21 (10.7%)	
Total				196 (100%)

Table-I. Grading of student's self-esteem

DREEM Score	Frequency	Percentage
0-50 (Very Poor)	5	2.6
51-100 (Many Problems)	64	32.7
101-150 (More positive than negative)	125	63.8
151-200 (Excellent)	2	1.0
Total	196	100

Table-II. Interpretation of DREEM Score

Subscale of DREEM	Mean/Standard Deviation	Percentage
SPL	25.69±6.85	53.52%
SPT	22.40±5.41	50.9%
SASP	18.63±5.60	58.21%
SPA	25.93±6.67	54.02%
SSSP	15.49±3.47	55.32%
DREEM Score	108.34±24.02	54.17%

Table-III. DREEM score and subscales score

Key

DREEM=Dundee ready educational environment measure
SPL= Student's perception of learning
SSSP= Student's social self-perception
SPT= Student's perception of teaching
SPA= Student's perception of atmosphere
SASP= Student's academic self-perception

Correlation of DREEM score with Rosenberg self-esteem score was 0.306 at significance level of 0.000.

DISCUSSION

Medical students are in late adolescent when they enter medical college. This is the time when they are more interested in defining their

role in society and shaping career choices.[12] Medical students' quality of training greatly affects lives of other people. So for the good of society it is very important students should have gratifying educational environment and high self-esteem.[13,14,15,16]

Mean age of students in our study was 21.99 ± 0.9 years. It is comparable to the age of students in other studies. In one study mean age of students was 21.4 years.[17] In another study Naz and co-authors reported mean age of medical students was 21.47 years.[18]

In our study there were 68(34.7%) males and 128(65.3%) females. Female student were more than male students. Our results are similar to the results of other studies. Ugusman and colleagues conducted a study to find out relationship between students' academic achievement and students' perception of educational environment. In their study there were 23.3% male students and 76.7% female students.[19] In one study conducted in Saudi Arabia to find out dental student's perception of educational environments 55.96% participants were females and 44.04% participants were male.[21] So, it is evident that female students are more in number than male students in different parts of the world in medical professional education. There is growing trend in Pakistan that more female students are getting admission in medical colleges. This may be due to limited profession options available to the females as compared to the males. Moreover, females prove to be more studious students as compared to males so that scoring more marks and getting admission in medical colleges.

In our study mean Rosenberg self-esteem score of male and female students was 18.54±4.06 and 17.69±4.32 respectively. The self-esteem score of male students was higher than that of female students. Our results are contrary to the results of the study conducted by Naz and colleagues.[18] In their study females were found to be having high self-esteem as compared to male students. A study conducted by Hadinezhad and Masoudzadeh showed there was no difference in self-esteem between male and female students.[20] Differences in the self-esteem of male and female students maybe because both genders react differently to different life situations.

In the present study mean DREEM score was 108.34±24.02. A study conducted by Al-Saleh and colleagues, mean DREEM score was 108.42 that is comparable to the results of our study. The study conducted at Aga Khan Medical College revealed a mean DREEM score of 125.77±16.8.[1] That study result was higher than the result of our study. Khan and colleagues conducted a study to find out the perception of the educational environment of final year MBBS students. The mean DREEM score for students of private medical colleges was 137±21.25. While the mean DREEM score of public sector medical colleges was 115±23.76. The overall mean DREEM score was 125. Analysis of their results showed that the mean DREEM score of one public sector medical college located in the south of Punjab was 107 and one well-established private medical colleges in Lahore was 141. Cronbach's alpha for the DREEM score was 0.91.[13,14] The mean DREEM score of the current study was less than the mean DREEM score of 141 for a well-established private medical college in Lahore. While mean DREEM score of south Punjab medical college is equal to the mean DREEM score of our study. This may be due to the similar cultural and socioeconomic backgrounds of the students of two medical colleges located in South Punjab. Moreover, the low DREEM score in our study may be because Sahiwal Medical College is newly established and lacks human resources and infrastructure. DREEM score reflects the maturity of the institutional teaching and learning culture.

The correlation of the DREEM score with Rosenberg's self-esteem score was 0.306 at a significance level of 0.000. There was a positive and strong correlation between the self-esteem of students and perception of the educational environment. Students with high self-esteem perceived the educational environment of Sahiwal Medical College more positive as compared to students with low self-esteem. Results of the present study are comparable to the results of a study done by Gupta and co-authors who found

a positive correlation between self-esteem and professional environment.[4] Good educational environment of an institution and high self-esteem of students are positively correlated.[16] It has been known that positive educational environment leads to better professional skills acquisition and higher achievements in post graduate training and education.[21]

The transient emotional and mental condition of the students can affect their response while completing the questionnaire. This factor can alter the response of the students from his/her genuine response otherwise and it is a major limitation of the study.

Another limitation of the study is the physical illness of students that can affect participant response. The sample size is small which is one of the limitations of the current study.

Great caution should be exercised in the interpretation of the results. This study is focused on third-year and fourth-year students. Students from other academic years were not included in this study. Generalization cannot be made based on the results of this study. Further study is necessary to find out the perception of medical students of all academic years.

CONCLUSION

The educational environment at Sahiwal Medical College was more positive than negative. Students had high self-esteem. There was a positive correlation between the perception of the educational environment and the self-esteem of students.

The establishment of a healthy and student-friendly learning environment can boost the self-esteem of medical students. By enhancing the self-esteem of medical students, we will get healthier, more learned, and more dedicated future doctors who will ultimately contribute to community wellbeing.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

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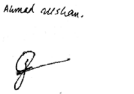
1	Ahmad Zeeshan Jamil	Concept and design of study, Interpretation of data and manuscript writing.	
2	M. Rashad Qamar Rao	Literature search and critical revision.	
3	Kashif Iqbal	Manuscript writing and critical revision.	
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