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The Association Between self-Esteem and Stress Levels Among Medical Students

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Abstract

Objective: To determine the association of self- esteem with stress levels among medical students and its contributing factors. **Methodology** A cross-sectional study was conducted at Liaquat Medical University Hospital, Jamshoro Sindh between [enter dates], for a duration of [enter months]. All students aged 18 or above were included in the study. The study hypothesised that those students having low self- esteem suffer from higher levels of stress compared to those with better self-esteem. The scales used for the study were “Rosenberg self-esteem” and “perceived stress scale”, along with detailed demographic information of all students. Descriptive statistics and cross-tabulation were applied using the Statistical Package for Social Sciences (SPSS, V.26). A p-value of < 0.05 was set as the cut-off value for significance.

Results: The mean age of participants was 21.47 years (enter standard deviation) with a range between 18-28 years. Results indicated that students with a low level of self-esteem were more likely to have a high level of stress (70.8% vs 36.5%), whereas students with a reasonable level of self- esteem showed to have very less stress (17.5% vs 8.4%). However, those with a high level of self- esteem still have quite a high level of stress (46.0% vs 20.8%). Results from the study were indicating that although self-esteem has a considerable impact on developing stress levels as seen in low esteem students, may not always affecting in the same manner as in the case of high self-esteem students where students showed to have a high level of stress.

Conclusion: The current study indicated that low self-esteem among medical student results in higher stress levels. Additionally, we found that the association of self-esteem is high in female thanmale, and it is significant in males.

Key words: academic performance, gender, medical student, Self-esteem, stress, sex

Introduction

Self-esteem is anyone's psychological feature on self-belief and self-assurance in all human pursuits. It is well-established that self-esteem directly affects the physical and psychological well-being of an individual. There have been studies indicating a relationship between increased levels of stress and low self-esteem [1-2].

Transition from high school to college life is not easy. Many students find the transition quite difficult and struggle during their college years. This not only affects their social lives but also harms their academic performance. It is well-known that student's academic performance is greatly affected by stress [3-4]. However, the nature of the impact of stress on academic performance on students has not been well-understood. Some studies claim that stress among students enhances their academic performance [4].

Many factors contribute to the phenomenon of stress [5], including urgency of any task, excessive work pressure, certain task in limited time. These stressors have both positive and negative effects, they by either inducing or reducing the motivation for educational journey in student's life [6]. In most cases, stress is linked with demands and resources. Demands can be defined as duties, dedication or obligations in daily life.

Von has revealed that stress is powerfully linked with student's educational performance [6].

Literature showed that student's just not have stress of their studies and goals but they may have many more problems in their life, and that these stressors can become devastating at any stage, thereby, affects the ability to handle the situation. Many educational institutions have policies for the students to reduce and overcome the stress and improve academic [7]. Due to increasing trend in stress levels, many studies have explored the factors associated with it [8]. Academic stress can lead to depression and anxiety among students, many even attempt suicide when academic stress becomes

overwhelming [9]. Self-esteem is a major factor that determines students academic performance [10-11].

It has been indicated that those with a high self-esteem, have lower level of stress and reduced risk of developing other psychiatric illnesses [12-13]. Furthermore, it has been reported that medical students with high self-esteem have better academically as well as easily manage challenging situations in life [14].

Similarly, lower self-esteem in a medical student can negatively affect the academic performance as well as the mental state of the student [15]. Therefore, it is important to identify those students with self-esteem issues, find out the reasons for low academic performance among medical students [16].

In Pakistan, this area of special importance has been ignored, and have no unit to make student's stress management policies, while low self-esteem is common in university students particularly among medical students. This study aimed to assess the prevalence of low self-esteem students and to determine the link between self-esteem and stress and demographic features of medical students.

Methodology

A cross-sectional study exploring the relationship between self-esteem and stress level of medical students was conducted at [name of the institute] between [dates], for a duration of [study duration in months].

All students between the ages of 18 and 25 years, both male and female participants, who gave informed verbal consent were eligible to partake in the study. All students who refused to take part in the study or were absent at the time of data collection were excluded from the study.

For determining the self-esteem levels among the participants, the Rosenberg self-esteem scale was applied; which is the most reliable and authentic scale measuring the quantitative assessment of self-esteem. A 10-items Likert scale that was used to measure both positive and negative feelings of a person about his global self-worth. Rosenberg self-esteem and perceived stress scale along with detailed demographic of students are usually in the assessment.

The collected data was entered and analyzed through the Statistical Package for Social Sciences (SPSS, V.20). Descriptive statistics were calculated, presented in the tables by calculating mean, standard mean and deviation for quantitative data and percentages for qualitative data. RESULTS

Data of total 240 students were analyzed for the study. A total of 114 (47.5%) students were aged up to 21 years while 126 (52.5%) were aged 22 years

or above; 87 (36.3%) were male while 153 (63.7%)

were females; 25 (10.4%) were in second year, 68

(28.3%) were in third year, 99 (41.3%) were in fourth year while 48 (20.0%) were in fifth year; 86 (35.8%) lived

in nuclear family system while 154 (64.2%) lived in joint family system; 59 (24.6%)

had low, 171 (71.2%) had normal while 10 (4.2%) had high level of self-esteem; 2 (0.8%) had no, 24 (10.0%) had low level, 95 (39.6%) had average level while 119 (49.6%) had high level of stress (Table 1).

While doing overall cross-tabulation between self-esteem and stress it was seen that the self-esteem level was not significantly associated with the stress level of the students ($P > 0.05$) (Table 2).

After stratifying for age, among students aged up to 21 years as well as among students aged 22 years or above, the cross-tabulation between self-esteem and stress showed that the self-esteem level was not significantly associated with the stress level of the students ($P > 0.05$ and $P > 0.05$ respectively) (Tables 3A and 3B).

After stratifying for gender, the cross-tabulation between self-esteem and stress among male students showed that the self-esteem level was significantly associated with the stress level of the students ($P > 0.05$) where students with the low level of self-esteem were more likely to have high level of stress (70.8% vs. 36.5%) whereas students with normal/high level of self-esteem were more likely to have no/low and average level of stress (17.5%

vs. 8.4% and 46.0% vs. 20.8% respectively). The cross-tabulation between self-esteem and stress among female students showed that the self-esteem level was not significantly associated with the stress level of the students ($P > 0.05$) (Tables 4A and 4B).

Table 1: Students Profile

Variables (n=240)		n(%)
Age Group	Up to 21 Years	114 (47.5)
	22 Years or Above	126 (52.5)
Gender	Male	87 (36.3)
	Female	153 (63.7)
Educational Year	Second	25 (10.4)
	Third	68 (28.3)
	Fourth	99 (41.3)
	Fifth	48 (20.0)
Type of Family	Nuclear	86 (35.8)
	Joint	154 (64.2)
Self-esteem	Low	59 (24.6)
	Normal	171 (71.2)
	High	10 (4.2)
Stress	No	2 (0.8)
	Low	24 (10.0)
	Average	95 (39.6)
	High	119 (49.6)

Table 2: Cross Tabulation between Self-Esteem and Stress

Variable (n=240)			Stress			p-value
			No/Low	Average	High	
			n(%)	n(%)	n(%)	
Self-esteem	Overall	Low	2 (3.4)	22 (37.3)	35 (59.3)	0.061
		Normal/High	24 (13.3)	73 (40.3)	84 (46.4)	
	Up to 21 Years	Low	1 (3.4)	11 (37.9)	17 (58.6)	0.217
		Normal/High	11 (12.9)	37 (43.5)	37 (43.5)	
	22 Years or Above	Low	1 (3.3)	11 (36.7)	18 (60.0)	0.261
		Normal/High	13 (13.5)	36 (37.5)	47 (49.0)	
	Male	Low	2 (8.4)	5 (20.8)	17 (70.8)	0.016
		Normal/High	11 (17.5)	29 (46.0)	23 (36.5)	
	female	Low	0 (0.0)	17 (48.6)	18 (51.4)	0.095
		Normal/High	13 (11.0)	44 (37.3)	61 (51.7)	

Discussion

Self-esteem plays a vital role in a person's life, precisely when being in pressurized environments [17]. The current study showed that the association between student's age and self-esteem was insignificant ($p=0.217$) up to the age of 21 years and ($p=0.261$) above 22 years which is also insignificant, so the confidence level of both groups of ages are at a healthy level. However, if we consider the association between gender and self-esteem, it was significant ($p=0.016$), and that self-esteem is low in male students. Likewise, the association of self-esteem with the female was

insignificant ($p=0.095$). In the present study, it was seen that gender is an essential factor in differentiating in the level of self-esteem. It was seen that female were falling in a high and standard range of self-esteem.

If we consider the student profile, up to 21 years of age have lower self-esteem than that of 22 years or above age group. Year of the study was found to be significantly associated with the self-esteem of the participants. Students who were in the fourth year had significantly higher odds of having standard or high self-esteem than students who were in the second year. The transition from high school to university is a significant life-changing experience. However, entering in the university may be the source of strain and acute stress [18], different mental health issues can also be identified and dealt with, especially in terms of age, gender, and educational years [19]. Among a few Pakistani studies done on the general population, middle-aged individuals were reported to be at higher risk for low self-esteem and its related problems [20]. Another study reported that females show more pre-disposition to self-esteem issues than males [21]. However, a different study found males to have higher pre-dominance in terms of self-esteem related issues than females [22].

Nonetheless, in our study and others as well, the ratio of male to female was unequal to determine an accurate association in this regard. An astonishing finding of a study reported highly educated individuals to be at higher risk for self-esteem issues than individuals with lower levels of education [23]. The beginning of university life might become a source of stress and strain, however, acutely. In university life, academic demand tends to be ever-increasing on the students [24].

Conclusion

According to the results of the study, the association of self-esteem is high in female than male, and it is significant in males, while other demographic characteristics of the medical students did not have a significant association with their self-esteem. Further large-scale cohort study can better understand the correlates of self-esteem, increased stress level and poor academic performance.

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