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The Relationship Between Self-Esteem and Students' Academic Achievement at Muhammad Medical and Dental College

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ABSTRACT

Background: As educational institutions continually strive to enhance the medical students' learning experiences and outcomes, understanding the potential impact of self-esteem on academic performance has become increasingly important. Self-esteem, encompassing an individual's overall perception of their self-worth and capabilities, plays a pivotal role in shaping various aspects of students' lives, including their motivation, resilience, and overall well-being. **Objective:** To explore the relationship between levels of self-esteem with GPA among the medical students at Muhammad Medical and Dental College. **Study Design:** Cross-sectional descriptive study. **Settings:** Muhammad Medical College, Mirpurkhas Pakistan. **Duration:** 3 months from June-August 2018. **Methods:** Medical and dental under graduate students from multiple academic years of either age and gender were included. Self-esteem was measured using a validated self-report questionnaire like the Rosenberg Self-Esteem Scale. It gauges a person's self-perception by considering both positive and negative self-feelings. Questionnaires were administered to participants in a controlled and private setting, ensuring comfort and privacy. All the information was entered and analyzed by using SPSS version 26. **Results:** A total of 130 medical students were studied; with the majority falling in the 18-20 and 21-23 age of age groups, accounting for 36.9% and 36.2% of the cases, respectively. Most of the cases 49.20% had high self-esteem level, 47.70% cases had normal self-esteem level, while 3.10% cases low level self-esteem. The level of self-esteem was significantly influenced by the age of the students, their academic year, and GPA categories (p=<0.05). However, it was not significantly influenced by gender and whether the parents had a doctor's occupation (p = >0.0.05). Overall, a positive correlation (correlation coefficient of 0.271) between self-esteem and GPA suggests that higher self-esteem tends to be associated with better academic performance (p-value=0.002). **Conclusion:** It was concluded that self-esteem significantly corelated with academic achievement among medical students. The findings strongly indicate that a high level of self-esteem is closely associated with superior academic performance.

Keywords: *Self-esteem, GPA, Medical students, MMDC.*

INTRODUCTION

Academic achievement motivation pertains to actions that lead to learning and the fulfillment of (academic) accomplishments.[1] Various factors have an impact on students' academic success, including aspects related to students themselves, teachers, and Instititue.[2] Among these factors, self-esteem holds significance. Self-esteem is a notable element, frequently discussed not only in everyday language but also in the field of psychology.[2] The relationship between self-esteem and academic performance pertains to how an individual's self-view influences their accomplishments in an educational setting. This connection encompasses the correlation

between self-assurance, drive, and overall achievements in scholarly activities.[3] In contemporary times, the role of self-esteem as a significant factor influencing students' academic accomplishments has gained more recognition. It has been asserted that elevated self-esteem is associated with enhanced academic performance.[4] Medical students face considerable stress stemming from academic demands, familial aspirations, peer influences, financial concerns, and extended working hours.[5,6] Research indicates that a significant portion of medical student's experience discontentment and possess diminished self-esteem. Such students, with lower self-esteem, are prone to feelings of anxiety, psychological distress, self-doubt, and inadequacy. Consequently, they may appear less proficient compared to their peers, which further contributes to feelings of depression and discontentment.[5-7] Low self-esteem may not be classified as an independent mental disorder, there are also robust links between viewing oneself as valuable and capable, acknowledging one's positive attributes, and experiencing psychological and emotional wellness.[8] Higher self-esteem often correlates with increased academic engagement, adaptive learning strategies, and the capacity to overcome setbacks, while low self-esteem might lead to decreased motivation, burnout, and hindered academic progress. In the context of a medical and dental college, these factors take on added importance, as students are not only preparing for academic success but also for future professional roles that require a strong foundation of both knowledge and self-assuredness. Evaluating the self-esteem of medical students and formulating appropriate interventions for those with insufficient self-esteem can contribute to the cultivation of self-assured and positive-minded medical professionals.[5] A strong correlation exists between academic self-concept and academic accomplishment, establishing it as a significant psychological aspect that impacts academic success.[9] The intricate relationship between self-esteem and academic achievement among medical students has become a subject of substantial interest and investigation in recent years. Self-esteem plays a crucial role in shaping students' academic engagement, motivation, and overall well-being. In educational institutions within Pakistani culture, the primary challenge revolves around the study of cultural aspects and behavioral problems among students.[10] This study aims to investigate into the specific relationship between self-esteem and academic achievement among students at the mentioned college.

METHODS

This cross-sectional analytical study was conducted at Muhammad Medical College MirpurKhas. Study was done during few months from June to August 2020. All the medical under graduate students from multiple academic years of either age and gender were included. Medical students, those who were unwilling to participate in the study were excluded. Informed consent will be obtained from all participants. They were informed about the study's objectives, their rights, and the confidentiality of their responses. Self-esteem was measured using a validated self-report questionnaire like the Rosenberg Self-Esteem Scale. This is a questionnaire consisting of ten items designed to assess an individual's overall self-esteem. It gauges a person's self-perception by considering both positive and negative self-feelings. The questionnaire is considered to measure a single dimension of self-esteem. Respondents provide their answers using a 4-point Likert scale, ranging from "strongly agree" to "strongly disagree. Participant's respond to statements related to self-worth, self-confidence, and self-perception was assessed. Surveys and questionnaires were administered to participants in a controlled and private setting, ensuring comfort and privacy. Academic achievement data was obtained through official university records in compliance with data protection regulations. Data was stored securely to protect participants' privacy. All the information was entered and analyzed by using SPSS version 26.

RESULTS

A total of 130 medical students were studied; with the majority falling in the 18-20 and 21-23 age of age groups, accounting for 36.9% and 36.2% of the cases, respectively. A smaller proportion falls in the 24-26 age group (19.2%), while the >27 age group represents 7.7% of the participants. Males comprising a slight majority at 56.9%, while females make up the remaining 43.1% of the sample. The majority of participants reside in urban areas (70.0%), while 30.0% come from rural backgrounds. Highest representation was in the 2nd year (25.4%) and 3rd year (22.3%). Other academic years include the 1st year (18.5%) students, 4th year (15.4%) students, and 5th year (18.5%) students. Punjabi was the most common language (25.4%), followed by Urdu (23.1%) and Saraiki (20.8%). Sindhi, Pashto, and Balochi are less commonly spoken, with percentages ranging from 2.3% to 15.4%. The average self-esteem score and average GPA score are presented in Table 1.

According to the different level of self-esteem, most of the cases 49.20% had high self-esteem level, 47.70% cases had normal self-esteem level, while 3.10% cases low level self-esteem. Figure 1

It reveals that the majority of participants in the 18-20 age group had self-esteem scores falling within the 15-25 range, constituting 22.3% of this group. A significant p-value of 0.003 suggests a statistically significant relationship between age and self-esteem. 29.2% fell into the 15-25 self-esteem score category. In contrast, 24.6% of

males and 24.6% of females fell into the 15-25 self-esteem score category. The p-value here is 0.097, suggesting a relatively weaker association between gender and self-esteem. The data shows that students in the 2nd year had the highest percentage (15.4%) with self-esteem scores falling in the 15-25 range. The p-value of 0.001 indicates a significant relationship between academic year and self-esteem. Occupational status of father and mother were statistically insignificant according to self-esteem level (p=>0.05). Furthermore 13.8% of students with a GPA between 2 and 2.5 fell into the 15-25 self-esteem score category. Conversely, 17.7% of those with a GPA between 2.5 and 3 had self-esteem scores in the 15-25 range. The p-value of 0.003 highlights a statistically significant link between academic achievement and self-esteem. Table.2

Table 1: Demographic and clinical characteristics of the study subjects (n=130)

Variables		Frequency	Percent
Age Groups	18-20	48	36.9%
	21-23	47	36.2%
	24-26	25	19.2%
	>27	10	07.7%
Gender	Male	74	56.9%
	Female	56	43.1%
Residential status	Urban	91	70.0%
	Rural	39	30.0%
Years of the study	1st year MBBS	24	18.5%
	2nd year MBBS	33	25.4%
	3rd year MBBS	29	22.3%
	4th year MBBS	20	15.4%
	5th year MBBS	24	18.5%
Language of the participants	Urdu	30	23.1%
	Sindhi	17	13.1%
	Punjabi	33	25.4%
	Pashto	20	15.4%
	Balochi	3	2.3%
	Saraiki	27	20.8%
Average (Self-esteem score)		22.09 ± 4.23	
Average (GPA score)		3.29 ± 0.42	

Figure 1: Cases distribution according to self-esteem (n=130)

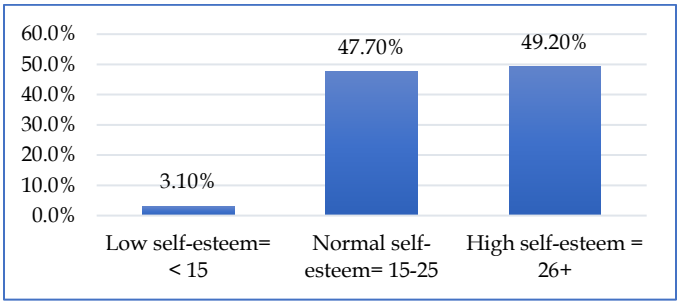

Table 2: Self-esteem according to age, gender, year of study and academic achievement n=130

Variables		Self-Esteem Categories			Total	p-value
		<15	15-25	>26		
Age of Participant	**18-20**	4 (3.1%)	29 (22.3%)	15 (11.5%)	48 (36.9%)	**0.003**
	21-23	0 (0.0%)	24 (8.5%)	23 (17.7%)	47 (36.2%)	
	24-26	0 (0.0%)	6 (4.6%)	19 (14.6%)	25 (19.2%)	
	>27	0 (0.0%)	3 (2.3%)	7 (5.4%)	10 (7.7%)	
Gender	**Males**	4 (3.1%)	38 (29.2%)	32 (24.6%)	74 (56.9%)	**0.097**
	Females	0 (0.0%)	24 (18.5%)	32 (24.6%)	56 (43.1%)	
Year of the Study	**1st year**	3 (2.3%)	17 (13.1%)	4 (3.1%)	24 (18.5%)	**0.001**
	2nd year	1 (0.8%)	20 (15.4%)	12 (9.2%)	33 (25.4%)	
	3rd year	0 (0.0%)	15 (11.5%)	14 (10.8%)	29 (22.3%)	
	4th year	0 (0.0%)	5 (3.8%)	15 (11.5%)	20 (15.4%)	
	5th year	0 (0.0%)	5 (3.8%)	19 (14.6%)	24 (18.5%)	
Father Occupation	**Doctor**	1 (0.8%)	11 (8.5%)	9 (6.9%)	21 (16.2%)	**0.758**
	Other	3 (2.3%)	51 (39.2%)	55 (42.3%)	109 (83.8%)	
Mother Occupation	**Doctor**	1 (0.8%)	5 (3.8%)	8 (6.2%)	14 (10.8%)	**0.469**
	Other	3 (2.3%)	57 (43.8%)	56 (43.1%)	116 (89.2%)	
Academic Achievement	**<2**	3 (2.3%)	18 (13.8%)	4 (3.1%)	25 (19.2%)	**0.003**
	2 to 2.5	1 (0.8%)	4 (3.1%)	9 (6.9%)	14 (10.8%)	
	2.5 to 3	0 (0.0%)	23 (17.7%)	23 (17.7%)	46 (35.4%)	
	3 to 3.5	0 (0.0%)	8 (6.2%)	14 (10.8%)	22 (16.9%)	
	3.5 to 4	0 (0.0%)	9 (6.9%)	14 (10.8%)	23 (17.7%)	

Table 3: Correlation between levels of self-esteem and GPA among the medical students (n=130)

		Self-Esteem Score	Academic Achievement (GPA)
Self-esteem score	Pearson Correlation	1	0.271**
	Sig. (2-tailed)		0.002
	N	130	130
Academic achievement (GPA)	Pearson Correlation	0.271**	1
	Sig. (2-tailed)	0.002	
	N	130	130
****. Correlation is significant at the 0.01 level (2-tailed).**			

This positive correlation suggests that there is a significant association between self-esteem scores and

academic achievement. In other words, as self-esteem scores increase, there tends to be an increase in GPA, and vice versa (correlation coefficient of 0.271, p=value=0.002). Table 3

DISCUSSION

Self-esteem is a fundamental aspect of an individual's psychological well-being, influencing various aspects of life, including academic performance. This study explores and examines the complex interplay between self-esteem and academic success. In this study involving 130 medical students, most participants were in the 18-20 and 21-23 age groups, making up 36.9% and 36.2% of the total, respectively, males were in majority 56.9%, while females comprised 43.1% of the sample. In the comparison of this study Naderi H *et al*[11] reported that their study involved 153 participants, with 105 being male and 48 being female. Although inconsistently Rahman SA *et al*[12] reported that out of the entire group of 240 medical students in their study, the majority, comprising 63.7%, were females, while the remaining 36.3% were males. On the other hand, in the study by Arshad M *et al*[13], an equal number of male and female students were included, with a total of 80 students, consisting of 40 males and 40 females. Our findings were also supported by the Gidi NW *et al*[14] reported that the among the 422 students who participated in the study, 279 of them, constituting 66.1%, were male, and 413, which accounts for 97.9%, fell within the age range of 18 to 25 years. The majority, specifically 328 students (77.7%), had a residential background in urban areas prior to entering medical school.[14] The observed male dominance in our study could potentially be attributed to the higher willingness of male medical students to complete the questionnaire.

In this study only in 3.10% cases had low level self-esteem. In the comparison of this study Gidi NW *et al*[14] reported higher occurrence of Low Self-Esteem (LSE) and mental distress was recorded at 19.0% and 19.7%, respectively. On the other hand, Alghamdi SA *et al*[15] reported that out of the 1099 participants, comprising 55.9% females and 50% males, 24.1% exhibited low self-esteem. The significant independent predictors of low self-esteem included being female and receiving a diagnosis of mental illness. The lower occurrence of low self-esteem in this study compared to others could be attributed to the absence of participants selected with mental distress.

In this study it reveals that the majority of participants in the 18-20 age group had self-esteem scores falling within the 15-25 range, constituting 22.3% of this group. The level of self-esteem was significantly influenced by the age of the students, their academic year, and GPA categories (p=<0.05). However, it was not significantly influenced by gender and whether the parents had a doctor's occupation (p = >0.0.05). In the line of this series Rahman SA *et al*[12] found a notable link between self-esteem and the academic year, specifically comparing fourth year and the second-year medical students (p-0.023). On the other hand, Arshad M *et al*[13] inconsistently found as notable discrepancy between male and female students concerning their self-esteem and academic performance scores. This distinction suggests that female students achieved higher scores in academic performance compared to their male counterparts, while male students obtained higher scores in self-esteem in comparison to female students.[13]

In this study there was a positive correlation suggests that there is a significant association between self-esteem scores and academic achievement. In other words, as self-esteem scores increase, there tends to be an increase in GPA, and vice versa (correlation coefficient of 0.271, p=value=0.002). In the comparison of this study Jirdehi MM *et al*[16] demonstrated that there was a statistically significant link was detected using the Pearson correlation coefficient between educational status and self-esteem in both the overall dimension (r = 0.102) (p = 0.019) and the academic dimension of self-esteem (r = 0.116) (p = 0.007), as well as in the total self-esteem score (p = 0.019) (r = 0.102). In the line of this study Kharsah WS *et al*[17] indicated a significant association between self-esteem levels and academic performance, whereas there were no notable associations between university commitments and academic performance. Inconsistently Sophomore Talle Vacalares *et a*[l3] reported that the correlation analysis showed that there was a relatively modest correlation between self-esteem and academic performance, with a correlation coefficient (r-value) of 0.12. This indicates that there was a discernible but not particularly strong relationship between these two variables in the study. In other words, as self-esteem scores increased, there was a slight tendency for academic performance to also increase, and vice versa.[3] Albalawib MY *et al*[18] also found inconsistent findings. In another comparable study, Saadat *et al*[19] demonstrated a positive and statistically significant correlation between academic self-esteem and students' GPA. The relationship between self-esteem and students' academic achievement is a complex and multifaceted one, as demonstrated by the findings of this study. This discussion will delve into the results, their implications, the limitations of the study, and provide suggestions for future research in this area. The study did not extensively explore external factors like family support, socioeconomic status, or educational environment, which can significantly impact academic achievement. Future longitudinal studies should employ longitudinal designs to track changes in self-esteem and academic achievement over time. This can provide a

more comprehensive understanding of their dynamic relationship.

CONCLUSION

As per the study conclusion, the self-esteem observed to be significantly corelated with academic achievement among medical students. The findings strongly indicate that a high level of self-esteem is closely associated with superior academic performance. Educational institutions should incorporate programs and activities that focus on enhancing students' self-esteem. This could include workshops, seminars, or counseling services aimed at building self-confidence and a positive self-image.

LIMITATIONS

Participants may have faced challenges in understanding the survey questions, possibly because their comprehension was influenced by the cultural norms, socioeconomic factors, and the overall current situation of the country. Additionally, the presence of "confusional thoughts regarding future plans" suggests that the study might not have fully delved into participants' long-term goals and uncertainties about their future, potentially leaving important aspects unexplored.

SUGGESTIONS / RECOMMENDATIONS

Future research in this field may benefit from addressing questionnaire clarity, considering cultural nuances, and delving deeper into students' long-term aspirations to provide a more comprehensive understanding of the intricate interplay between self-esteem and academic success

CONFLICT OF INTEREST / DISCLOSURE

No conflict of interest is involved.

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REFERENCES

1. Yousefy A, Ghassemi G, Firouznia S. Motivation and academic achievement in medical students. Journal of Education and Health Promotion. 2012;1;1-4
2. Sharma PR, Sharma M. Relationship between self-esteem and academic achievement of secondary school students. Elementary Education Online. 2021 May 23;20(1):3208-12.
3. Sophomore Talle Vacalares, Jamaica Ocliaman, Jessa Mae Maglangit et.al. The self-esteem and academic performance in purposive communication class at the tertiary level. International Journal of Research and Review. 2023; 10(6): 62-69
4. Aryana M. Relationship between self-esteem and academic achievement amongst pre-university students. Journal of applied sciences. 2010 Dec;10(20):2474-7.
5. Shrestha B, Yadav S, Dhakal S, Ghimire P, Shrestha Y, Rathaure ES. Status of self-esteem in medical students at a college in Kathmandu: A descriptive cross-sectional study. F1000Research. 2021;10; 1031.
6. Dahlin ME, Runeson B. Burnout and psychiatric morbidity among medical students entering clinical training: a three year prospective questionnaire and interview-based study. BMC Medical education. 2007 Dec;7:1-8.
7. Liu M, Wu L, Ming Q: How does physical activity intervention improve self-esteem and self-concept in children and adolescents? Evidence from a meta-analysis. PloS one. 2015 Aug 4;10(8):e0134804
8. Radeef AS, Faisal GG. Low self-esteem and its relation with psychological distress among dental students. European Journal of Medical and Health Sciences. 2019 May 17;1(1).
9. Daryazadeh S, Yavari M, Sharif MR, Azadchahr MJ, Kiani M. Correlation Between Self-esteem and Academic Self-concept in Medical Students. Educational Research in Medical Sciences. 2022 Jun 30;11(1).
10. Arshad M, Zaidi SM, Mahmood K. Self-Esteem & Academic Performance among University Students. Journal of education and practice. 2015;6(1):156-62.
11. Naderi H, Abdullah R, Aizan HT, Sharir J, Kumar V. Self-esteem, gender and academic achievement of undergraduate students. American Journal of Scientific Research. 2009 Jan;3(1):26-37.
12. Rahman SA, Rasool G, Ali HW, Siddique I. Association of Self-Esteem with Gender and Medical Year: A Cross Sectional Study. Pakistan Journal of Medical and Health Sciences. 2021 Feb;15(2):483-5.
13. Arshad M, Zaidi SM, Mahmood K. Self-Esteem & Academic Performance among University Students. Journal of education and practice. 2015;6(1):156-62.
14. Gidi NW, Horesa A, Jarso H, Tesfaye W, Tucho GT, Siraneh MA, Abafita J. Prevalence of Low Self-esteem and Mental Distress among Undergraduate Medical Students in Jimma University: A Cross-Sectional Study. Ethiopian Journal of Health Sciences. 2021 May 1;31(3).
15. Alghamdi SA, Aljaffer MA, Alahmari FS, Alasiri AB, Alkahtani AH, Alhudayris FS, Alhusaini BA. The impact of low self-esteem on academic achievement and the behaviors related to it among medical students in Saudi Arabia. Saudi medical journal. 2023 Jun;44(6):613.
16. Jirdehi MM, Asgari F, Tabari R, Leyli EK. Study the relationship between medical sciences students' self-esteem and academic achievement of Guilan university of medical sciences. J Edu Health Promot 2018;7:52
17. Kharsah WS, Latada F. The correlation between levels of self-esteem, university commitment and academic performance among undergraduate students. InThe National Conference for Postgraduate Research 2016 (Vol. 201).
18. Albalawib MY, Aljohanib B, Masoudb R, Al-Hadidib S. Impact of Obesity on Self-Esteem and Academic Performance among Medical Students in Al-Rayan Colleges, Al-Madinah.
19. Saadat M, Ghasemzadeh A, Soleimani M. Self-esteem in Iranian university students and its relationship with academic achievement. Procedia-Soc Behav Sci 2012;31:10-4.