Correlation in Academic Performance, Purpose in Life and Hopelessness among Final year Medical Students

Ammara Butt[1], Marryam Iftikhar[2], Zainab Mahmood[3]

[1]Associate Professor, Department of Psychiatry, Allama Iqbal Medical College/Jinnah Hospital Lahore-Pakistan. [2]Senior Registrar, Department of Psychiatry, Fatima Jinnah Medical University Lahore, [3]Postgraduate Resident, Department of Psychiatry, Fatima Jinnah Medical University, Lahore-Pakistan

Correspondence to: Ammara Butt, Email: aamirammara@yahoo.com

ABSTRACT

Background: Student's academic performance is the major concern for the educational sector because students are the future practitioners who will serve the society. The academic performance of students is a key feature in teaching. The present study aims to determine the relationship between academic performance, purpose in life and hopelessness among final year MBBS students, by taking hopelessness as predicting variable.

Methodology: A Correlational study was conduct at Fatima Jinnah Medical University, Lahore Pakistan. A total mind of 240 final year medical students were included by using convenient sampling technique and they were administered Purpose in Life (PIL) Scale and Beck's Hopelessness Scale (BHS) along with demographic details. The academic performance of students was measured through 4th year academic scores. Hopelessness was taken as independent variable (IV), while, academic performance and purpose in life served as dependent variables (DVs).

Results: The mean age of students was 22.5 years. Results found negative correlation between hopelessness and academic performance ($p<0.01$), as well as a negative correlation between hopelessness and purpose in life ($p <0.01$). Hopelessness negatively predicted academic performance ($\beta= -.19$, $p<.01$) and purpose in life ($\beta= -.72$, $p<.001$) among students. Total 25% students were in the normal range of hopelessness, 45.4% students scored in mild range, 23.8% students were in the moderate category, while 5.8% students were found in the severely hopeless category.

Conclusion: The study concluded that hopelessness does not only predict purpose in life negatively among students but also affect their academic performance. A wide range of students were found hopeless therefore, various interventions for the prediction of hopelessness in various academic institutes should be made by involving appropriate educational and administrative measures.

Keywords:
Academic performance, purpose in life, hopelessness.

INTRODUCTION

Student's academic performance is the major concern for the educational sector because students are the future practitioners who will serve the society. In the current era, researchers are paying particular attention to academic performance in order to know that how it is affected by different factors. The academic performance is considered to be the center around which the entire education system revolves.[1] The failure or success of any institution is highly related to its students' academic performance.[2] Hijazi and Naqvi argued that academic performance is not influenced by age, gender, or residence however, they also described that students who live close to institution can achieve much well than others who reside far from university.[3] Also, students who are weak if group with bright students can perform well in academics which will lead them to graduate on time. The fact is it depends on the efforts of students themselves if they want to progress in their academics then they will.[4] Stress seems to be high among Pakistani medical students, which tends to disturb not only their academic achievement but also all aspects of their mental health.[5] Purpose or meaning in life theory was presented in 2004 by Frankl, the founder of Logotherapy, in terms of observation and understanding of autonomy, responsibility, optimistic image of one's life, self-determination, the future aim and achievement of existential goals, life satisfaction, acceptance of harsh conditions, and self-actualization.[6] However, when this wisdom of meaning is not gotten, it originates a negative state of cognitive-motivation, besides perception of loss of control over life, hopelessness, and absence of dynamic goals. In contrast, individuals with understanding of meaning have a strong self-image, autonomy, and determination in life, and are involved in the consciousness of strong well-defined vital goals.[7] Purpose in life is associated to the elevation of one's growth and recuperation and establishes one of the key factor of well-being to

delivers the required conditions from which happiness ascends.[8] The quality of life of medical students is seriously affected by mental distress. Medical students experience mental health issues like depression, anxiety and hopelessness. There are substantial changes in pre-clinical years of a student's life, such as shifting cities, losing friends, social pressure and financial problems etc., which confounds an already stressful life, leading to depression and hopelessness.[9] The hopelessness is called as having negative perceptions about the past and future which leads the depressed patient to believe that suicide is the only possible solution for handling with their seemingly insoluble problems. Furthermore, hopelessness has been found one of the main predictive factors of ultimate suicide even when controlling for past suicidal behaviors.[10]

Both qualitative and quantitative literature suggested that depression and hopelessness among students is positively associated with low level of purpose in life and this leads to the poor academic performance.[11-14] This study aims to determine the relationship between academic performance, purpose in life and hopelessness among final year MBBS students by taking hopelessness as predicting variable, so that early identification can be done for appropriate and timely intervention.

SUBJECTS AND METHODS

Correlational study design was used to investigate the relationship between academic performance, purpose in life and hopelessness among final year MBBS students Fatima Jinnah Medical University Lahore. Duration of the study is six months from June to December, 2021. Sample of 240 final year medical students was taken with 5% margin of error and 95% confidence interval. Convenient sampling technique was used for the recruitment of subjects,

The approval for research was taken from Ethics Review Committee of Fatima Jinnah Medical University, Lahore. Final year medical students who recently joined academic year and waiting for 4th year annual results were contacted, and a written informed consent was obtained from them after they were briefed about the study. Students, who were willing to sign the consent form, were administered Purpose in Life (PIL) Scale and Beck's Hopelessness Scale (BHS) along with demographic details. The PIL is a 20-item scale designed to measure respondents' level of meaning and purpose in their lives. The scale has pronounced psychometric properties; the minimum score is 20, shows lowest purpose and the maximum score is 140,

indicated highest purpose.[15] The BHS is also a 20-item inventory intended to assess three major aspects of hopelessness: loss of motivation, feelings about the future, and expectations. Scores ranging from: 0 to 3 as are considered within the normal range, 4 to 8 indicate mild hopelessness, scores from 9 to 14 indicate moderate level of hopelessness, and scores greater than 14 identify severe hopelessness.[16] The academic performance of students was measured through students' 4th year academic scores, which were taken from examination department after disclosure of results. Hopelessness was taken as independent variable (IV), while, academic performance and purpose in life served as dependent variables (DVs). Correlation and regression analyses were conducted to find out the relationship between study variables by considering p>0.05 to be significant. The confidentiality of data was assured, and results were retrieved using SPSS version 21. The qualitative characteristics of students (Table 1) such as residence and birth order were presented as frequencies and percentages. While quantitative characteristics of students (Table 2) such as age and parent's education were presented as mean and deviations.

Table 1: Qualitative characteristics of students (N=240)

Characteristics	Frequency (%)
Educational Background	
FSc	230 (95.8)
A level	10 (4.2)
Marital Status	
Single	202 (84.2)
Engaged	36 (15)
Married	2 (.8)
Residence Status	
Day scholar	106 (44.2)
Hostellers	134 (55.8)
Birth Order	
1st born	82 (34.2)
Middle born	83 (34.6)
Last born	66 (27.5)
Only child	9 (3.8)
Family Background	
Rural	49 (20.4)
Urban	191 (79.6)
Chronic Illness in Family	
Present	122 (50.8)
Not	118 (49.2)

Table 2: Quantitative characteristics of students (N=240)

Characteristics	Mean ±SD
Age (years)	22.50±0.77
Father's Education (years)	14.41±3.08
Mother's Education (years)	12.40±4.20
Academic Performance	644.32±44.69
Purpose in Life	65.18±13.01
Hopelessness	6.69±4.07

RESULTS

In this study, total 240 students were enrolled. By applying Pearson Product Moment Correlation, negative correlation between hopelessness and academic performance (p<0.01), as well as a negative correlation between hopelessness and purpose in life (p<0.01) was found in students; this indicates that with an increase in hopelessness, purpose in life and academic performance decreases. However, there was a positive correlation between academic performance and purpose in life. The association of hopelessness with several demographics was also evaluated but the results were not found significant. The percentages of students on different categories of hopelessness scale are mentioned in Fig. 1.

Total 25% students were in the normal range of hopelessness, 45.4% students scored in mild range, 23.8% students were in the moderate category, while 5.8% students were found in the severely hopeless category. On using Hierarchical Regression (Figure 2), hopelessness was taken as predicting variable while purpose in life and academic performance were taken as outcome variables. Results showed that hopelessness influence significantly (β= -.19, p<.01), negatively predicts academic performance among students, the overall model explains 38% with F (1, 238) = 9.48. Likewise, hopelessness also negatively predicts purpose in life among students (β= -.72, p<.001). Its model explains 52% variance with F (1, 238) = 258.06. Reliability of the scales was also measured; the Chronbach's Alpha reliability of Beck's Hopelessness Scale (BHS) was found 0.84 and for Purpose in Life (PIL) Scale the alpha value was noted 0.86. The reliability of the scales is very high which shows the authenticity of the study.
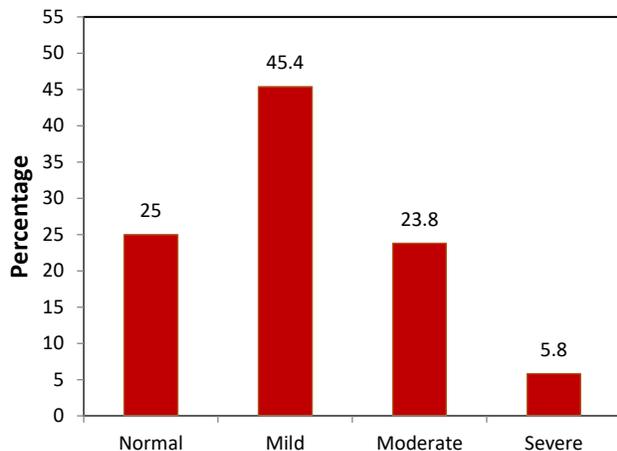

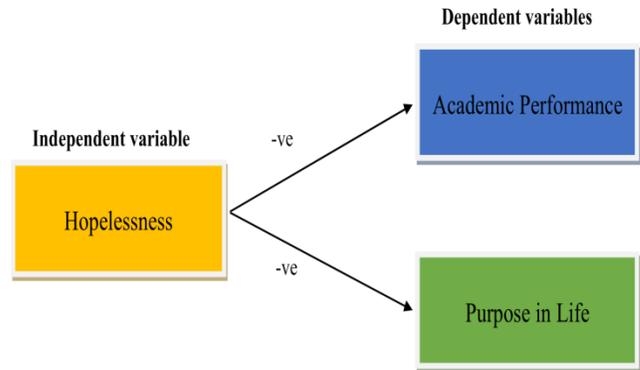Figure 1: Students' percentages on hopelessness scale (N=240)

Figure 2: Regression analysis of academic performance, purpose in life and hopelessness among students (N=240)

DISCUSSION

The current study was conducted at Fatima Jinnah Medical University Lahore and the findings suggest a negative correlation between hopelessness and academic performance. Hopelessness negatively predicts academic performance in students. Previous researchers also confirm the findings of current study. Shaikh and colleagues found the occurrence of perceived stress to be high in Pakistani MBBS students, which not only affect their academic life but also badly affect their overall mental health.[5] The senior students of the fourth and final year were more stressed and hopeless (95% and 98% respectively). Difficulty to concentrate, low moods, loss of temper were found most shared symptoms. One previous study documented the correlation between hopelessness and academic performance.[17] Typically, positive academic experiences encourage students to create a productive sense of well-being, while failures not only bring the feelings of hopelessness, but also contribute to inferior perceptions of their academic self-esteem. Pekrun and coworkers proposed that educational aptitude was negatively associated to hopelessness.[18] Au and associates also established in their research on Hong Kong students, that learned hopelessness is a negative predictor of academic achievement in students.[14]

Results of this study indicated a negative correlation between hopelessness and purpose in life, also hopelessness negatively predicts purpose in life among students. One previous study examined the association between meaning in life, psychological well-being and depressive symptomatology such as hopelessness.[11] Findings revealed significant relationship between depressive symptoms and life meaning. Higher level of depressive symptomatology was found with a lower sense of meaning in life among students, while students with higher level of life meaning had lower depressive scores. Dogra and group

suggested that future perception and coping mechanisms of purpose for existing and having meaning in life act as common feature for both hope and suicidal thoughts but in different directions and the meaning in life affects suicidal ideations and hope beyond the influence of any other factor.[12] Existential psychological research also emphasized on meaning in life to enhance state and trait hope and to prevent suicidal ideation higher level of purpose in life is positively connected with psychological well-being and mental health while a low level leads to negative mental health outcomes.[19,20] To investigate whether humor styles, optimism and hopelessness levels are substantial predictors of meaning in life, a study was conducted in Turkish university and the results confirmed that hopelessness negatively predicts the sense of meaning in life among students.[21] These findings are parallel to the findings of current study. According to this study a wide range of students was found mild to moderate hopeless however some were also identified as severely hopeless. Mental suffering seriously affects the quality of life of medical students. Medical students experience mental health issues including depression and hopelessness, the occurrence of hopelessness were found in 54.4 percent.[9] Approximately 13% of college students in Pakistan reported non-medical prescription drug use (NMPDU). Students who reported feeling depressed, hopeless, or suicidal thoughts were 1.22–1.31 times more likely to report NMPDU.[22] Psychological descriptions for the onset of suicide thoughts have focused typically on the role of negative cognitive and emotional state of mind in the etiology of suicidal ideations. These contained such variables as 'psychache'-referring to the emotional pain related with suicide and 'hopelessness'-referring to pessimistic or negative perceptions regarding one's future and meaning in life, among other factors.[23,24] A detailed evaluation recorded many resilience factors, suggesting that clinicians should screen and target them to reduce and prevent the risk of hopelessness which further reduces the risk of positive progression of high achievability.[25] In the current study the correlation between demographics and hopelessness was not found significant, so further studies should be done to explore the determinants of hopelessness, on broader level. Moreover, group interventions should be made to encounter the hopelessness among students.

CONCLUSION

It is concluded that hopelessness does not only predict purpose in life negatively among students but also affect their academic performance. A wide range of students were found hopeless therefore, various interventions for the prediction of hopelessness in the academic institutes should be made by involving appropriate educational strategies and the institutional administration. One of the limitation of the study is that the current research is based only female population from a single institution.

REFERENCES

1.   Rono R. Factors affecting pupils' performance in public primary schools at Kenya Certificate of Primary Education Examination (Kcpe) in Emgwen Division, Nandi District, KENYA (Doctoral dissertation, University of Nairobi). 2013.
2.   Narad A, Abdullah B. Academic performance of senior secondary school students: Influence of parental encouragement and school environment. Rupkatha Journal on Interdisciplinary Studies in Humanities Special Issue. 2016;3(2):12-9.
3.   Hijazi ST, Naqvi SM. Factors affecting students' performance. Bangladesh e-journal of Sociology. 2006;3(1).
4.   Brown AL. Motivation to learn and understand: On taking charge of one's own learning. Cognition and Instruction. 1988;5(4):311-21. https://doi.org/10.1207/s1532690xci0504_4
5.   Shaikh B, Kahloon A, Kazmi M, Khalid H, Nawaz K, Khan N, Khan S. Students, stress and coping strategies: a case of Pakistani medical school. Education for Health: Change in Learning & Practice. 2004;17(3):e13576280400002585.
6.   Morgan J, Farsides T. Measuring meaning in life. J Happiness Stud. 2009;10(2):197-214.
7.   García-Alandete J. Does Meaning in Life Predict Psychological Well-Being? An analysis using the Spanish version of the Purpose-In-Life test and the Ryff's scales. J Couns Psychol. 2015;3(2):89-98.
8.   Pezirkianidis C, Stalikas A, Efstathiou E, Karakasidou E. the relationship between meaning in life, emotions and psychological illness: The moderating role of the effects of the economic crisis. J Couns Psychol. 2016;4(1).
9.   Coskun O, Ocalan AO, Ocbe CB, Semiz HO, Budakoglu I. Depression and hopelessness in pre-clinical medical students. The Clinical Teacher. 2019;16(4):345-51.
10. Klonsky ED, May AM. The three-step theory (3ST): A new theory of suicide rooted in the "ideation-to-action" framework. Int J Cogn Ther. 2015;8(2):114-29.
11. Kleftaras G, Psarra E. Meaning in life, psychological well-being and depressive symptomatology: A comparative study. Psychology. 2012;3(04):337.
12. Dogra AK, Basu S, Das S. Impact of meaning in life and reasons for living to hope and suicidal ideation: A study among college students. SIS Journal of Projective Psychology & Mental Health. 2011;18(1):89.
13. Shek DT, Li X. Perceived school performance, life satisfaction, and hopelessness: A 4-year longitudinal study of adolescents in Hong Kong. Soc Indic Res. 2016;126(2):921-34.
14. Au RC, Watkins DA, Hattie JA. Academic risk factors and deficits of learned hopelessness: A longitudinal study of Hong Kong secondary school students. Educational Psychology. 2010;30(2):125-38.
15. Crumbaugh JC, Maholick LT. An experimental study in existentialism: The psychometric approach to Frankl's concept of noogenic neurosis. J Clin Psychol. 1964 Apr 1;20(2):200-7.
16. Beck AT, Steer RA. Beck Hopelessness scale manual. The Psychological Corporation.

17. Au CP, Watkins D. Towards a causal model of learned hopelessness for Hong Kong adolescents. Educational Studies. 1997;23(3):377-91.
18. Pekrun R, Elliot AJ, Maier MA. Achievement goals and achievement emotions: Testing a model of their joint relations with academic performance. J Educ Psychol. 2009;101(1):115.
19. Mascaro N, Rosen DH. Existential meaning's role in the enhancement of hope and prevention of depressive symptoms. J Pers. 2005;73(4):985-1014.
20. Halama P. Meaning in life and coping: Sense of meaning as a buffer against stress. Meaning in positive and existential psychology 2014 (pp. 239-250). Springer, New York, NY.
21. Şahin-Baltacı H, Tagay Ö. Optimism, humor styles and hopelessness as predictors of meaning in life for Turkish university students. Int J Humanit Soc Sci. 2015;5(10):90-9.
22. Zullig KJ, Divin AL. The association between non-medical prescription drug use, depressive symptoms, and suicidality among college students. Addict Behav. 2012;37(8):890-9.
23. McMillan D, Gilbody S, Beresford E, Neilly LI. Can we predict suicide and non-fatal self-harm with the Beck Hopelessness Scale? A meta-analysis. Psychol Med. 2007;37(6):769-78.
24. Heisel MJ, Flett GL. Do meaning in life and purpose in life protect against suicide ideation among community-residing older adults?. In Meaning in positive and existential psychology 2014 (pp. 303-324). Springer, New York, NY.
25. Johnson J, Wood AM, Gooding P, Taylor PJ, Tarrier N. Resilience to suicidality: The buffering hypothesis. Clin Psychol Rev. 2011;31(4):563-91.