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ARTICLE

Effect of Mental Health Problems on Academic Performance among University Students in Pakistan

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ABSTRACT

Scientific interest in student's mental health experiences has been increasing in the last years due to their influence on students' learning processes, academic performance, and recently, the suicidal news of a student at a private university due to her mental health condition in Lahore Punjab, Pakistan, captured public attention. That incident also shifted researchers and scholars' attention on the much underexplored and tabooed sphere of the broader public health domain. Hence, the current study aimed to explore the relationship between mental health problems and Pakistani university students' academic performance. Participants were 540 senior semester students within the age range of 20–35 years taken from public and private institutes of Pakistan's major cities, including Lahore, Islamabad, and Peshawar. Descriptive and inferential statistics was employed for data analysis. Pearson Product Moment Correlation, Hierarchical Regression analysis, and Independent sample *t*-test were used for data analysis in inferential statistics. The results of the study reveal that there is a strong positive association between mental health and improvement in academic performance. Mental health problems negatively affect the academic performance of university students. The findings of the current study were beneficial for shedding light on the ignorant area within the broader public health domain; the results are also helpful in raising awareness for not only students but also the parents and university administration to plan and design effective intervention strategies to provide proper mental health that resultantly promote academic excellence.

KEYWORDS

Mental health; academic performance; university students; Pakistan

1 Introduction

The academic performance of university students has been a great interest among academicians. Students' academic performances become more critical as they wish to enter different professions. Policymakers impart recommendations for the improvement of the teaching systems based on students' academic performance. Academicians and researchers worldwide are searching for the solution to an epidemic mental health problem. Getting admission into a university entirely changes one's life. The students of universities are emotionally and intellectually charged, and there is considerable stress on

students to meet the academic deadlines and to adjust themselves in the competitive environment [1–4]. Mental health is associated with students' weak academic performance [5–7], poor quality of life [8], lower well-being [9] and most crucially with weak overall health [10]. This constant social and emotional pressure makes university students more vulnerable to mental health problems [5,10–12]. A lot of research has been conducted regarding the mental health of university students in developed countries. It revealed that many students suffer from mental health problems in their academic life [13–16]. But when considering developing countries like Pakistan, little work has been done related to university students' mental health [17]. This lack of research leads to inadequate assessment tools and interventions to help mentally exhausted students, which has resulted in poor academic performance, mood disturbance, aggression, drug abuse, and sometimes extreme measures like suicides from students [18].

Mental health is defined as a state of harmony among emotional, social, and psychological well-being [6,19,20]. World Health Organization [21] defined mental health as a state of well-being in which individuals use their potentials to perform their duties properly, use the coping skills to deal with the stressors of life, and become an influential member of his community. Hence, mental health is not merely the absence of mental illness. World Health Organization [21] estimated that in a year, one out of four adolescents aged 12 to 24 suffers from a mental health problem such as depression and schizophrenia. Many other studies also confirmed that mental health issues generally started at a young age and later in life [22–26]. Unfortunately, these people are ignored and got less attention for receiving mental health services. In particular, university students made up the largest group of young people suffering from mental health problems such as depression, anxiety, suicidal attempts, and non-suicidal self-injury [27,28]. Academic stress, financial issues, reliance on others and career ambitions, and the competitive environment made students more vulnerable to these mental health problems, resulting in morbidity and psychological exhaustion [29,30]. Drum et al. [31] conducted a study on 26,000 students from 70 colleges and universities. Its results revealed that mental health problems such as suicidal thoughts, intent, and actions influence students' professional and personal lives. On the professional front, it includes poor academic performance, dishonesty, lack of compassion, and morality, whereas personally, students suffer from edgy relationships, drug abuse, and poor physical health [32,33]. It has been established through different studies that mental health problem among students leads to many physical, emotional and social disturbances [34]. These problems include low self-esteem, poor sleep, poor management skills, loss of appetite, etc., contributing to poor academic performance [35–37].

The literature widely recognized that students who had mental difficulties or disabilities, either treated or untreated, experience lower grade point average (GPAs) and more drop out than other students [5–7]. Students with mental health problems have a higher probability of developing a life-long mental disorder due to delays in acquiring the required skill for a successful life [38–40]. Suppose the education system does not teach students how to manage themselves during stressful situations. In that case, this will create hurdles for students to cope with the transition from college to a university, leading to mental health problems among students [41,42]. Moreover, the absence of stress management skills and proper support systems makes students stop taking classes, failing to get course requirements, and finally leaving the degree. Therefore, students with low academic performance report stress, insomnia, loneliness, low self-esteem, and adjustment [43,44].

Most of the research related to university students pay attention to mental disorders, not mental problems, as university life is a transitory time where many students experience mental issues that do not meet the full mental illness criteria [45,46]. It may be unreasonable to analyze them as having mental disorders by remembering the changing interest and pressures. Additionally, the predominance rate is remarkably shifted due to various evaluation procedures, different cut off points focuses on deciding the seriousness, and distinctive operational meaning of mental health issues. Regardless of all these methodological issues, the reality remains that a substantial proportion of university students suffer from severe mental health problems that may affect their normal functioning [47,48].

The other common obstacle in getting proper help is normalizing stress and considering it expected, which requires no support [47–49]. Most university students already form a perception of university life as stressful and witness their fellow student dealing with stress, which makes stress normal for them as part of university life. Salzer et al. [50] indicated that most of the students did not receive support because they felt it was not needed. Along with that, students have burdened themselves with social, personal, institutional, and self-stigma related to mental health problems [50–52]. They have multiple stigmatization fears from their peers, teachers, and other students. These fears stop them from receiving support, and almost half of the students reported embarrassment after telling their mental problems to a teacher and felt a change in their behavior [50,53]. After disclosing their mental health problems, they feel useless and unreceptive. If they believe that their disclosure leads to better help and support, they would not be labeled with the condition and would be welcomed with their concerns, the rate to seek mental health support would improve [54,55].

Regular mental health issues seen among school understudies fuse low certainty, distress, uneasiness, self-mutilation, and inconsequential, indiscreet, and careless practices [42,56]. Disclosures subject to results from a longitudinal examination of 198 school understudies exhibited that failure to complete school was fundamentally (46%) related to the proximity of mental health issues [57]. This has been supported by other research, proposing that informational achievement, mental health, and thriving are interlinked for school understudies. These results are enduring with the disclosures of Cook [42], which assumed that poor mental health, left untreated, is a significant factor in academic dissatisfaction. The impact of the nonattendance of thought given to mental health issues in Asian social orders not only fundamentally impacts an understudy's current state of mental health and academic performance, yet what's more imperils their potential and future performance.

Students' lack of personal effect and time is also one reason for not seeking mental health support. They have a perception of not enough time for themselves. Students are not taught management skills in school and college life that's why they are not able to cope with the independence and autonomy that a university life offers, which resulted in mental health problems. Another problem is the knowledge of having a support system and help. The students, who identify their problems and overcome their fear of stigmatization, usually do not have the experience about support availability [58,59]. After the awareness of support, the issue is the quality of support. Most of the university campuses lack any mental health service for students. If they are present, they lack professionals and the staff required to manage students in their problem times [54].

There is a dearth of systematic research in Pakistan to assess the magnitude and burden of mental health problems experienced by university students. The consequences of mental health problems in the form of poor academic performance are primarily underexplored. Competitive environment, lack of understanding about mental health, and unstable socio-economic conditions make students more susceptible to mental health issues [60]. In developing countries like Pakistan, students usually enroll in universities during late adolescence or young adulthood, which is a time of rapid emotional and physical change. Still, these changes typically lead to health issues, especially mental health.

Along with the stigma of mental health, there is a lack of mental health services, making this problem severe among students, especially university students [21]. The more common problems among university students are mood disturbances, self-mutation, problematic interpersonal relations, and low self-esteem [61]. University students usually suffer from stress, anxiety, depression, eating problems, and other psychological issues, which negatively influence their academic performance and mental health [62–64].

The transitions of Pakistani students from college to university are similar to those in the international settings. However, in some cases, the setting is different due to country's education system and historical background as a post-colonial nation. The parallel Urdu and English medium of instruction and

private/government education system play a significant role in shaping the transition from college to university. Many public health campaigns are run for awareness purposes in universities of Pakistan, but the researchers neglect mental health problems; therefore, the students lack knowledge regarding mental health problem.

Social scientists and researchers focus on life transitions, and they provide insights into life-changing transition stages in individual's life where adulthood is the period marked with challenges accompanied with multiple transitions, including university life, the formation of new relationships, adjustment to new environmental and culture thus growing into a fully functioning individual of the society at large. This phase of life marked with gradual and consistent changes is much explored in developed countries such as the United States and Europe. However, it still needs to be explored in other developing nations like Pakistan et al. [65–67]. In 2013, Saleem et al. [28] conducted a prevalent study on analyzing the mental health problems of Pakistani university students (19–26 years), which revealed four dimensions of mental health problems as reported by university students, such as sense of being dysfunctional, loss of confidence, lack of self-regulation and anxiety proneness.

Different studies discussed the various important aspects of the gender role and academic performances [68–73]. Furthermore the social responsibility, nurturing behavior, and emotional connectedness to family have been linked to more positive academic performance. For Example, commitment and loyalty to family have connected with higher academic goals [72]. Other research have found that the need to provide for the family, emotional connections with family, and familial support have been shown to relate to higher academic motivation and fewer university dropouts [68,73]. Conversely, hostile masculinity, hyper masculinity, and antisocial competitiveness have been found to relate to poorer performance like lower educational development and lower academic goal setting [70,71]. These qualities are narrowly related to those found in the traditional gender role. The gender role can be positive or negative to the extent to which they are related to positive and negative academic performance [74]. To this end, the present study also sought a complete perspective to understanding the association between gender role and academic performance of Pakistani university students. In doing so, we drew from gender schema theory (GST) to explain the potential relations between the gender role and academic performance [75]. Given these findings, in the present study, there are likely to be gender differences in mental health problems and academic performance in Pakistani university students.

In conclusion, the literature related to the university students' mental health concerns and academic performance reflects that students expect and experience stress; their family system, economic condition, realization of the impact of stress, isolation, a transition of life, and grown independence affect their academic performance. This study's main objective is to explore the association between mental health problems and the academic performance of Pakistani University students. This study contributes to the existing literature in several ways. First, the review uses other vital factors, including mental health problems, to investigate students' academic performance determinants. Moreover, this study contributes to the existing literature using a comprehensive Mental Health Continuum (MHC-SF), Keyes [6] scale for accessing mental health problems. It is worth noticing to explore the relationship between mental health problems and academic performance in university students of Pakistan. To provide ample evidence that would be essential to conduct a general study that can provide a base for further development of student counseling services to restore the Pakistani university students' academic performance. The current research focuses on the following hypotheses:

- Mental health problems (emotional, psychological, social well-being) likely to be negatively related to the academic performance of the Pakistani University students.
- There are likely to be gender differences in mental health problems and academic performance in Pakistani university students.

2 Materials and Methods

2.1 Sampling and Participants

This study uses a multistage sampling technique. In the first stage, three major cities of Pakistan, including Lahore, Islamabad, and Peshawar, were selected. In the second stage, senior semester students were selected. The actual sample size (n) will be calculated after identifying the target areas. The following formula will be used, and sample size n and margin of error E are given by

$$X = Z(c/100)2r(100 - r)$$

$$N = Nx/((N - 1)E2 + x)$$

$$E = Sqrt[(N–n)x/n(N - 1)]$$

N is the population size, r is the fraction of responses that we are interested in, and Z(c/100) is the critical value for the confidence level c. The calculation is based on the Normal distribution. Based on the formula mentioned above, initially, 600 participants were recruited, out of which 40 participants refused to participate and give their consent. In comparison, 20 participants incompletely filled the survey, so these were not included in the final result compilation procedure, thus making an overall response rate of 83% (540). In a total of 540 samples, 61.2% (331) male students and 38.8% (209) female students were selected. The students' age ranged between 20 and 35 years (M = 13.7, SD = 1.2). Participants are from both the public and private sectors of universities (75.7% and 24.3%, respectively) and different backgrounds (28.2% rural and 71.8% urban).

2.2 Measures

To measure university students' mental health and academic performance, Mental Health Continuum (MHC-SF), Keyes [6] scale for accessing mental health problems. This study uses MHC-SF to measure the Mental Health of respondents. A total of 14 items were chosen to represent emotional well-being (3 items), psychological well-being (6 items), and social well-being (5 items). An index of these well beings is constructed to measure MHC-SF. Cumulative Grade Point Average scores (CGPA) were used to assess the participants' academic performance. Universities use CGPA to score a student on a GPA scale between 1.0 and 4.0. For demographic variables, this study used age, employment status, family system, major subject, ongoing degree, previous degree, total family income, number of friends, marital status, number of dependents, leisure time activities, any physical impairment history of any mental illness in the family, and active use of psychoactive drugs, etc. Total family income, number of friends, number of dependents, leisure time activities are continuous variables. While, age, primary subject, ongoing degree, previous degree, marital status, any physical impairment history of any mental illness in the family, and active use of psychoactive drugs are categorical variables. Gender, employment status and Family status are dichotomous variables. MHC-SF is widely used as a psychometric property. However, the test of reliability was performed to check the internal consistency of the SHC-SF factors. The Cronbach Alpha (α) for 14 items is 0.746, which expresses both reliability and internal consistency. The reliability evaluation of the instrument by the α resulted in 0.812, 0.793, and 0.808 for dimensions of emotional well-being (3 items), psychological well-being (6 items), and social well-being (5 items). The reliability evaluation of the full scale (14 items) by the α resulted in 0.746 without excluding any item, which implies that all 14 items (of dimensions 1, 2, and 3) are essential to consider.

2.3 Data Collection

Data were collected using a self-administered survey questionnaire which comprised initial demographic information questions, any physical impairment history of any mental illness in the family, and active use of psychoactive drugs, etc. along with Mental Health Continuum (MHC-SF), Keyes [6]

scale and Cumulative Grade Point Average scores (CGPA). The universities and departments were identified through the pre-selection process, which is at least more homogeneous in various characteristics as much as possible. Decisions about the sample size from the targeted universities were taken in the questionnaires' pre-testing. Face to face interviews were conducted to collect the primary data. Overall, approximately participants took 15–20 min to complete the survey, and they were thanked for their cooperation.

2.4 Ethics

The researcher obtained approval to carry out the research from the Ethics Committee of the targeted Universities. The study abided by the ethical rules and guidelines stipulated by the Universities. In order to keep confidentiality, no names have been used in this study during the data analysis process or discussion of the findings. The researcher ensures that the rights, privacy, and confidentiality of the participants are protected and respected. Participation in the study was voluntarily filled the questionnaire.

2.5 Data Analysis

Data were then added to IBM SPSS-23 for further data analysis. Moreover, after the initial screening of the data for some missing values and outliers, descriptive statistics for the sample characteristics and the study variables were computed, followed by the establishment of reliability statistics for the used measures, respectively. Furthermore, in order to test the hypothesis of the study, inferential statistics will be employed for data analysis. Pearson Product Moment Correlation, Hierarchical Regression analysis, and Independent sample *t*-test were conducted in inferential statistics.

2.6 Model Specification

The regression model applied in this study was as follows:

$$\begin{aligned} \mathrm{CGPA} = {} & \beta 0 + \beta 1\mathrm{FT} + \beta 2\mathrm{FI} + \beta 3\mathrm{MS} + \beta 4\mathrm{DEP} + \beta 5\mathrm{FR} + \beta 6\mathrm{LT} + \beta 7\mathrm{MI} + \beta 8\mathrm{PI} \\ & + \beta 9\mathrm{UD} + \beta 10\mathrm{MHP} + \mu \mathrm{i} \end{aligned} \tag{1}$$

where FT is the family type; FI means family income; MS stands for marital status; DEP stands for the number of dependents; FR is the number of friends, LT stands for leisure time, MI means mental illness, PI stands for physical illness, UD means the use of drugs and MHP stands for mental health problems. CGPA is the dependent variable and stands for cumulative Grade point average, representing students' academic performance. These variables were selected based on pre-testing and sensitivity analysis. Based on the existing literature on academic performance, the mental health problem variable's expected sign is negative.

3 Results and Discussion

3.1 Descriptive Statistics

Tab. 1 represents the descriptive statistics of key variables used in the study. The distributions of the critical variables are presented via skewness and Kurtosis. This study uses Mental Health Continuum (MHC-SF) to gauge mental health problems. The average value of MHC-SF is 17.145 and its standard deviation is 5.554. The minimum value is 4, and the maximum value is 33.14. The average value of academic performance is 5.3%, and its standard deviation is 1.9%. The minimum value is 1, and the maximum value is 12.20.

Table 1: Descriptive statistics of the main variables of the study

	Obs	Minimum	Maximum	Mean	Std. deviation
Mental health problem	540	4.00	33.14	17.1458	5.55427
Academic performance	540	1.00	12.20	5.3389	1.96342

3.2 Correlation Matrix

In Tab. 2, the results of the Pearson correlation matrix are reported. Estimated results represent that Pearson correlation among academic performance and mental health problems is negative and statistically significant, having a correlation value of –0.85.

Table 2: Pearson correlation matrix

Correlations			
		Academic performance	Mental health problem
Academic performance	Pearson Correlation	1	–0.085*
	Sig. (2-tailed)		0.048
	N	540	540
Mental health problem	Pearson Correlation	–0.085*	1
	Sig. (2-tailed)	0.048	
	N	540	540

Note: *Correlation is significant at the 0.05 level (2-tailed).

3.3 The Gender Effect on Academic Performance and Mental Health Problems

In Tab. 3, summary statistics regarding the gender effect on academic performance and mental health problems are reported. Estimated results show that female students' academic performances are better than their male counterparts. However, there is more significant variation in female students' academic performance than male students. It is evident from the results of Tab. 3 that male students are more prone to mental health problems as compared to female students. The independent *t*-test shows that we reject the null hypothesis of constant variance in academic performance as the *p*-value, in this case, is 0.03, which is less than 0.05. So, we reject our null and accept the alternative hypothesis of difference in means. There is a difference between mean values of gender, which shows that gender difference affects people's academic performance. In mental health problems, we accept the null hypothesis of constant variance as the *p*-value, in this case, is 0.48, which is more than 0.05. So, we accept our null and accept the alternative hypothesis of equal means. There is no difference between mean values of gender, which shows no influence of gender on mental health issues of people.

Table 3: The gender effect on academic performance and mental health problems (Independent *t*-test)

	Group statistics					Levene's test for equality of variances		*t*-test for equality of means	
	Gender	Obs	Mean	Std. deviation	Std. error mean	F	Sig.	T	Sig. (2-tailed)
Academic performance	Male	331	5.1946	1.88573	0.10365	2.364	0.125	–2.157	0.031
	Female	209	5.5675	2.06456	0.14281				
Mental health problem	Male	331	17.2825	5.44238	0.29914	0.830	0.363	0.719	0.472
	Female	209	16.9293	5.73355	0.39660				

3.4 Determinants of Students' Academic Performance

In Tab. 4, evaluated results of hierarchical regression analysis are reported. The table represents the value of coefficients and their standard errors. The value of coefficients shows the relationship between that particular independent variable and a dependent variable. Results of Model 1 show that our independent variable of family type, family income, and the number of friends have positive. In contrast, the number of dependents has a negative relationship with academic performance but are statistically insignificant Marital status is positively related to academic performance and is statistically significant.

In Model 2, regression analysis is performed by including the independent variable of leisure time, physical and mental illness, and drugs. Estimated results show that physical condition has negative while mental illness and drug use have a positive relationship with academic performance and are statistically insignificant. Leisure time has a positive connection with academic performance and is statistically significant. This shows that an increase in leisure time will enhance students' academic performance in Pakistan's universities.

Table 4: Determinants of students' academic performance

	Hierarchical regression analysis		
Variables	Model 1	Model 2	Model 3
Family	0.016 (0.17)	0.014 (0.17)	0.009 (0.17)
Family income	–0.010 (0.107)	–0.010 (0.10)	–0.017 (0.11)
Marital status	0.050 (0.11)	0.046 (0.11)	0.050 (0.11)
Dependent	–0.036 (0.04)	–0.038 (0.04)	–0.038 (0.04)
Friends	0.040 (0.07)	0.032 (0.07)	0.027 (0.08)
Leisure time	–	0.078* (0.18)	0.076* (0.18)
Mental illness	–	0.082 (0.51)	0.076 (0.51)
Physical illness	–	–0.027 (0.55)	–0.027 (0.55)
Use of drugs	–	0.028 (0.74)	0.036 (0.74)
Mental health problem	–	–	–0.086*** (0.01)
R	0.075	0.139	0.163
R square	0.006	0.019	0.027
Adjusted R square	–0.004	0.003	0.008
Std. error of the estimate	1.96697	1.96082	1.95543

In Model 3, regression analysis is performed by including the independent variable of mental health problems. Estimated results show that mental health problems have negatively associated with academic performance and are statistically significant. This indicates that an increase in mental health problems decreases people's academic performance in universities of Pakistan. Our estimations show that a 1% increase in mental health problems reduces students' academic performance by 8.4% in the case of Pakistan.

Tab. 4 also presents a summary of the number of models applied. In this study, our dependent variable is academic performance, while our independent variables are family type, family income, marital status, number of dependents, number of friends, leisure time, mental illness, physical illness, use of drugs, and mental health problems. In these results value of R is evaluated. Principally 'R' represents the relationship among dependent and independent variables, i.e., strong, weak, moderate, etc. In the above results 'Coefficient of Correlation'(R) in Model 1 is 0.07, 0.13 in Model 2, and 0.16 in Model 3, there is a weak relationship between dependent and independent variables.

4 Discussion

In this study, a stratified sample of 540 university students was asked to rate themselves on Mental Health Continuum (MHC-SF) [6] scale for accessing their mental health problems. The correlation matrix results show that the increase in mental health problems decreases students' academic performance in universities of Pakistan. These results are consistent with the studies of [76,77] where it was found that some students in the universities are capable of dealing with the increase in stress or difficulties and can maintain their academic performance. But certain students cannot handle the increase in stress, which can directly affect their academic performance and runoff from the educational institution without receiving the degree. This study recognized that mental health problems negatively affect the university students' academic performance, which is consistent with that of Drum et al. [31]; they found that mental health problems influence student's professional and personal life negatively. From the results of gender effect on academic performance, it is evident that female students are better than their male counterparts. At the same time, male students are more prone to mental health problems than female students. These current research findings are consistent with the earlier studies [5,6,10]. For all three dimensions of well-being (emotional, psychological, and social), we calculate the respondents' prevalent rates. This study estimated three different models to examine the relationship between university students' mental health and academic performance. The results demonstrate that family type, family income, numbers of friends, leisure time are positively associated with academic performance. In contrast, mental health problems, physical illness, number of dependents are negatively related to academic performance. Mental illness and the use of drugs do not contribute to academic performance, which is evident from their insignificant coefficients. The high coefficient of mental problem in affecting academic performance is a caution for the authorities to respond comprehensively. The results show that an increase in mental health problems decreases people's academic performance in universities of Pakistan. The results are consistent with the studies of [62–64] who found that mental health problem causes a negative influence their academic performance. Furthermore, Macan et al. [78,79] found students' good health results in better academic performance. Better mental health creates self-efficiency of the students, which results in upgrading the students' academic performance. Time managing behavior helps students achieve better scores; self-confidence decreases their uncertainty regarding their roles, reduces their mental stress, and increases their level of satisfaction towards their life and academic performances. Estimated results robustly support the hypothesis that an increase in mental health problems decreases people's academic performance in universities. There is a dire need for university authorities to offer appropriate counseling services to university students.

5 Conclusions

Existing research documents the importance of mental health. However, less empirical attention has been paid to the effects of mental health on university students and academic performance, especially in

Pakistan. This paper contributes to the existing literature on mental health by assessing the effects of mental health on university students' academic performance. Using primary data from different university students in Pakistan and applying the inferential statistics, Pearson Product Moment Correlation, Hierarchical Regression analysis, and Independent sample *t*-test, this study found a strong association between mental health problems and students' academic performance. Students who are mentally disturbed have an increased chance of long-lasting mental illness. An increase in mental illness will decrease the students' capabilities and efficiency in their academic careers.

Pakistan's complex education system is the main reason for the increase in mental illness among the students. The country's educational setting does not train its students on how they have to face stressful circumstances. Due to this, students fail to transition from college to a university. An increase in academic pressure, economic problems, dependence on others, and professional motivations and the competitive atmosphere increase the serious mental health issues among the university students of Pakistan. Results estimated through hierarchical regression show that the increase in mental illness decreases students' academic performance in the universities of Pakistan. The difference in Gender significantly impacts students' academic performance, while an increase or decrease in mental illness is indifferent to the gender difference. Opposing to present research supposition, the hypothesized effect of friends on the academic performance was insignificant. A possible explanation for this unexpected result might be the students unions and political gathering in Pakistani universities.

It is recommended that further study might be conducted by taking the other factors i.e., teacher's evaluations by rating performance of students, quiz scores, and grades which affects the academic performance to get the apparent exact effect of mental health problems on the academic performance of students in universities. An extensive range of other psychological, demographical and emotional factors may also be examined, which affects students' academic performance in universities. This investigation is a critical step in detecting the complex association between mental health problems and academic performance. It is supposed that this investigation provokes the examination and increases the information further in this area of investigation. This study's major limitation is that it explored the association between mental health problems and Pakistani University students' academic performance. The study can be extended by examining the association of mental health problems with gender, religiosity, family status, campus life, and financial situation. Besides, the study was purely cross-sectional. Future studies could adopt the use of longitudinal data.

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