

Moderating Role of Gender in the Mental Well-Being and Academic Performance of Students

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Abstract

Emerging people encounter many pressures as they move from adolescence to adulthood, according to research. A number of problems arise during this shift, and mental health is one of them. The key goal of existing research was to check the moderating role of gender in the mental well-being and academic performance of the students. The current research was followed by the descriptive research design with quantitative study type. Population was the all undergraduate students of University of Mianwali. Sample was selected using convenient sampling techniques. Six departments from two faculties were selected. From faculty of social sciences the department of education, department of psychology and department of economics was selected and from faculty of arts and humanities the department of Islamic studies, department of Urdu and department of English was selected. Total sample was 448 students. An adopted instrument of mental well-being scale was used. Data was analyzed using Mean, standard deviation and moderation analysis techniques. The results of study find an insignificant moderating role of gender in the mental well-being and academic performance of the students. Universities and other educational institutes need to conduct workshop and seminar to spread awareness about the need of mental well-being which will ultimately improve their overall development in life.

Key Words

Moderation, Gender, Mental Well-being, Academic Performance, Undergraduate

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Introduction

Students' academic experiences and results are significantly shaped by mental well-being (MWB), a multidimensional idea that includes emotive, psychosomatic, and societal aspects (Alshehri, 2021). According to the World Health Organization (WHO, 2018), mental well-being is the aptitude to recognize one's own prospective, deal stress, work effectively, and make a significant contribution to one's community. This paradigm places MWB as an essential element of effective functioning in both academic and personal situations, going beyond the mere absence of disease. It becomes more vital to maintain mental health on college students in the process of life transition. Conversely, successful completion of predetermined learning objectives is academic achievement, which is often measured through tests, assessment, and metrics of performance (Steinmayr, 2014). It also encompasses both short-term and long-term accomplishments and this means you are a standout both academically and in other extracurricular activities. Academic success is not only an outcome of learning but it is

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also linked to healthier physical condition, higher self-image, better self-efficacy, and a reduced stress level (Heckhausen & Chang, 2009; Kayyali, 2023). Through this, the academic environment is used to demonstrate the complexity of how cognitive, affective, and interpersonal factors operate, and how success cannot be achieved without the basis of social and psychological factors that underpin it.

Some of the life events and challenges that students face during college life include regulation to self-governing, making other types of contacts, studying tests, future job search, among others (Compas et al., 1986). Such transformations require continuous emotional, social and personal changes (Hiester et al., 2009). Although such experiences may facilitate growth, it may as well come at the expense of the wellbeing of students, as it may be stressful. To reduce such stressors and increase resilience, self-worth, and pleasure, peer, familial, and institutional support is required to mitigate these stressors and enhance resilience (Gabrielli et al., 2018). To implement the mental health of students, which subsequently influences their academic performance, it is necessary to have an insight on how they manage these challenges. It has been observed that research has over time shifted outward to focus more on mental health and wellbeing rather than just mental illnesses alone. Health, as defined by WHO (1946), is a state of complete physical, mental and communal well-being as opposed to the lack of illness. The notion that has since been refined in later publications (WHO, 2004) highlights that maintaining internal stability and resilience in addition to ensuring constructive contribution to society are all worthy of consideration of psychological health besides not getting an illness. Besides, De Cates et al. (2023), have differentiated eudemonic comfort (optimistic mental working, self-actualization) and hedonic good (individual contentment, life happiness). These perspectives underline the significance of the complexity and cultural sensitivity of mental health.

Mental health is common, but it manifests itself in various cultures, genders, and socioeconomic groups. Academics such as Galderisi et al. (2015), present dynamic definitions, considering social, emotional, and cognitive skills in addition to the ability to regulate the undesirable life situation and maintain balance. These theoretical act as a reminder of the fact that MWB is not fixed and is subject to a plethora of demographic and circumstantial factors. Specifically, gender presents itself as a critical attribute influencing the academic success rates and the well-being experiences. Mental health protection has become a major concern at the international level. WHO estimates of 2019 show that more than 901 million people worldwide have mental health disorders, and the COVID-19 pandemic significantly increased the intensity of mental problems such as anxiety and despair. Given that three-quarters of all cognitive health conditions manifest by the phase of 24 and almost half by the stage of 14 (Kessler et al., 2005), university students are a particularly vulnerable demographic. Many individuals either arrive at colleges with pre-existing diseases or develop new symptoms while enrolled since this developmental window aligns with higher education.

In this regard, special emphasis must be paid to the disparities between genders in relations of cognitive strength and academic performance. Studies provide evidence that both male and female students can respond differently to stressors, apply varying coping styles and perform dissimilarly in school. Hence, one cannot adequately understand the connection between the academic performance and mental health without considering gender as a modifying factor. In addition to advancing theoretical knowledge, examining these variations helps direct the creation of gender-sensitive initiatives that can improve student support networks. Therefore, the determination of this research is to investigate how gender influences university pupils mental health and academic achievement in order to advance a more sophisticated knowledge of the ways in which the academic and psychological domains interact in emerging adulthood.

Over the past 20 years, numerous studies on mental health have been carried out. Mental health has been shown to support students' learning, emotional development, and mental growth. Numerous studies on mental health were carried out in an effort to help students solve difficulties more effectively. In light of current

phenomenon, the existing research sought to investigate how gender influences university students' mental health and academic achievement. The existing research would add to the body of information regarding the moderating influence of gender on students' academic performance and mental health. To the best of our knowledge, no research has been done that examines the moderating influence of gender on university students' academic achievement and mental health.

This study will contribute to the body of facts regarding gender, students' academic achievement, as well as mental health. Despite the fact that this phenomena has been the subject of numerous research, this one examined the issue using a different unit of analysis. In order to improve students' academic performance, which is important in a range of situations, this study will help policymakers propose ways to enhance mental health and plan events that can positively impact students' mental health.

Literature Review

Numerous researches have been directed on the idea of cognitive well-being, with researchers highlighting its multifaceted nature and impact on academic life. Delle Fave et al. (2011) state that mental well-being is made up of a multiplicity of psychological constructs that, despite their differences, fall into more general categories including emotional stability, social connectivity, and resilience. The WHO (2019), defines mental well-being as a state that allows individuals to cope with daily stressful situations, operate well, and also contribute positively to the communities they live in. This idea is an amalgamation of eudemonic well-being that focuses on growth, purpose, and self-actualization and hedonic well-being which concentrates on happiness and contentment (De Cates et al., 2023). Mental well-being has a close connection with physical health, social behavior and academic success, and is not merely the lack of illness (WHO, 2004). Galderisi et al. (2015), state that cognitive strength may be considered as a dynamic internal equilibrium state. In this perspective, emotional control, empathy, and flexibility are critical skills that should be maintained to maintain equilibrium in the face of life challenges. Such conceptualizations have implication on students who often encounter social and academic pressures in their lives.

There is a lot of transformation that students experience in college such as leaving home, adjusting to new environment as well as preparing themselves to join the labor market. Research suggests that these transitions are likely to lead to strain and negatively impact wellbeing in case they are not supported adequately (Compas et al., 1986; Hiester et al., 2009). Conversely, most maintenance by peers, household, and institutional factors is strongly associated with greater self-esteem, social acceptance, and overall well-being (Gabrielli et al., 2018). Moreover, Chernyshenko et al. (2018), argue that since mental health directly affects the way students deal with major life events, the lived experiences of students in emerging adulthood should be studied through the lens of this perspective. It is a well-known fact that academic success is connected with mental health. A reciprocal connection between psychological performance and learning outcomes is observed in the correlations between academic performance and reduced stress, enhanced self-concept, and self-efficacy (Chernyshenko et al., 2018; Eide et al., 2010). The study by Kiuru et al. (2014), and Tabbodi et al. (2015), states that classroom involvement is an intermediary between academic performance and interpersonal relationships. This highlights the importance of ensuring that the learning environments are nurturing and support both academic and social growth.

Gender disparities play a very crucial role in these dynamics. It has been found out that male and female students might have dissimilar perceptions and responses to stressful situations, and it can affect their performance and overall wellness (Parajuli & Thapa, 2017). Indicatively, female students can train complicated phases of trauma and anxiety, which might influence their cognitive comfort and even education growth, although women might tend to declare more extensive education motivation. Male students, in their turn, might have difficulties with

academic persistence and be underreporting psychological suffering. Jebiril et al. (2017), attributes such differences to gendered expectations and socialization processes, which influence coping mechanisms and outcomes.

The fact that the population of students with mental health problems is getting larger stresses the urgency of this necessity to combat these gendered disparities. WHO (2019), considers global mental health problems to be worsened and especially vulnerable is the population of universities. Aliyeva et al. (2021), state that individuals with chronic health issues often possess difficulties with self-confidence and flexibility which are vital factors in the academic success of an individual. At this particular intersection, university students are particularly vulnerable as gender differences are particularly pronounced due to the combination of maturation into adulthood, academic and psychological vulnerabilities. To obtain a deep insight, researchers have applied statistical methods such as the factor analysis to disclose the structural basis of the mentioned factors of mental well-being (Bobowik et al., 2015; Fabrigar & Wegener, 2011). The techniques reveal trends that tie in concepts like emotional control, resilience and self-efficacy to more general MWB domains. The discovery of these higher-order constructs, as Joshanloo and Weijers (2019), describe it, contributes to the comprehension of the number of multifaceted factors of mental health interacting to influence academic performance. A gender lens can be used to inform the treatments and policies that meet the unique needs of male and female students based on these results.

To sum up, the existing studies indicate that academic achievement and mental well-being have a strong relationship, and gender plays an instrumental role in altering such levels. Despite the fact that the literature demonstrates the importance of promoting the environment and personal resilience, the question regarding the role of gender in the relationship between academic performance and mental well-being remains to be addressed. By examining these intersections and providing implications for higher education theory and practice, this study helps close this gap.

On the basis of literature review following hypothesis was made:

1. There was significant moderating role of gender in the mental well-being and academic performance of students

Methodology

The current research was followed by descriptive research design with quantitative study type. Population was the all undergraduate students of University of Mianwali. Sample was selected using convenient sampling techniques. Six departments from two faculties were selected. From faculty of social sciences the department of education, department of psychology and department of economics was selected and from faculty of arts and humanities the department of Islamic studies, department of Urdu and department of English was selected. Total sample was 448 students. An adopted instrument of mental well-being scale established by Fen et al. (2013), were used. This instrument contains 30 statement and five point Likert scale was used. Mental well-being was independent variable, gender was moderating variable and academic achievement was dependent variable. Dependent variable was measured through Cumulative Grade Point Average. Validity and reliability of the current used scale was checked. Data was examined using Mean, standard deviation and moderation analysis techniques.

Sampling Framework

Table 1.

Semester and Department Wise Sample Distribution

Department	2nd	4th	6th	8th	Total
Economics	10	25	21	42	98
Education	27	0	52	30	111
English	11	1	12	16	40

Department	2nd	4th	6th	8th	Total
Islamic Studies	21	2	14	15	50
Psychology	14	37	17	31	99
Urdu	17	1	12	20	50
Total	100	66	128	154	448

Table 2.
Gender and Department Wise Sample Distribution

Department	Female	Male	Total
Economics	38	60	98
Education	68	43	111
English	23	17	40
Islamic Studies	27	23	50
Psychology	53	46	99
Urdu	25	25	50
Total	234	214	448

Table 3
Reliability statistics of Mental Well-being Scale

Cronbach's Alpha	N of Items
.936	30
N	51

The reliability statistics of the table 3 revealed that the mental well-being scale was highly reliable as the statistics of Cronbach's alpha was .939.

Results

Descriptive statistics

The current scale was divided into three sections, namely low (1.00 to 2.33), moderate/medium (2.34 to 3.66) and high (3.67 to 5.00) to measure the level of mental well-being in respondents.

Table 4
Level of Mental Well-Being among Students

Statement	Mean	St. D	Level
Balanced in self	3.59	1.167	Medium
Appreciate life	3.59	1.187	Medium
Accept life offers	3.63	1.216	Medium
Think clearly	3.77	1.081	High
Accept myself	3.72	1.195	High
Think rationally	3.67	1.155	High
Make good decisions	3.62	1.159	Medium
Accept reality	3.75	1.160	High
Appreciate own -worth	3.81	1.124	High
Make friends	3.58	1.169	Medium
Keep company with others	3.64	1.216	Medium
Seek help	3.67	1.143	High
Offer help to others	3.69	1.181	High
Maintain a respectable family life	3.64	1.202	Medium
Feel peace	3.68	1.190	High

Statement	Mean	St. D	Level
Self-development	3.66	1.218	Medium
Alert	3.65	1.181	Medium
Not depressed	3.52	1.257	Medium
Optimistic for future	3.71	1.130	High
Cope the life's challenges	3.61	1.193	Medium
Resilient	3.48	1.189	Medium
Firm under stress	3.70	1.130	High
Spiritual	3.61	1.120	Medium
Content	3.56	1.167	Medium
Happy	3.69	1.203	High
Calm	3.53	1.177	Medium
family and friends support	3.74	1.197	High
deal most situations	3.58	1.241	Medium
Contribute positively to the world	3.65	1.208	Medium
Continued development of myself	3.81	1.129	High

Above table 4 revealed the level of mental well-being among students. The values of mean as well as standard deviation discovered that the overall level of mental well-being was moderate to high.

Table 5

Moderating role of gender in the mental well-being as well as academic performance of students

	β	<i>p</i>	<i>LLCI</i>	<i>ULCI</i>	<i>R2</i>	<i>R2 Change</i>
Constant	3.405	.000	2.434	4.376		
MW	-.002	.568	-.011	.006	.008	.002
Gender	-.354	.250	-.959	.250		
MW× Gender	.003	.259	-.002	.008		

It was revealed in table 5 that mental well-being was insignificantly related to student's academic performance; and gender insignificantly moderated the link between mental well-being as well as student's academic performance as the interaction effect i.e., that mental well-being × gender → academic performance ($\beta = .003$, $P = .259$) was insignificant. We rejected the alternate hypothesis

Discussion

The chief goal of existing research was to check the moderating role of gender in the mental well-being and the academic performance of the students. The results of research find an insignificant moderating role of gender in the mental well-being as well as academic performance of the students. According to a study of Ramanjaneyulu and Jalandharachar (2024), conducted on students in Hyderabad, India, gender and educational attainment modify the intricate relationship between academic procrastination, mental health, and gender. According to Ramanjaneyulu and Jalandharachar (2024), this study did not favor the current research. Burris et al. (2009), supported current study as it found no discernible gender differences in the association amid psychological well-being and academic success between college students. Scholars of both genders reported comparable academic outcomes as a result of stress and coping mechanisms. The study conducted on secondary school students revealed that the gender plays insignificant part in the link among emotional intelligence as well as mental health; this study was in support of current research (Shabani & Damavandi, 2010)

Conclusion

The prominent goal of current research was to check the moderating role of gender in the mental well-being and the academic performance of the students. The research revealed an insignificant moderating role of gender in the mental well-being and the academic performance of the students. This implies that the ways in which mental health affects academic performance are similar for male and female students, underscoring the possibility that performance is more significantly influenced by variables other than gender, such as academic environment, social support, and personal resilience.

Recommendations

Based on the findings, the following recommendations were provided.

- ▶ In light of gender failing to significantly adjust the relationship between academic performance and mental health, it was implied that academic support and mental health programs may be offered in universities in an inclusive manner that would be beneficial to all students, irrespective of gender.
- ▶ To achieve this, counseling services, peer mentoring, and stress management courses need to be availed to more students in order to enable them to enhance their resilience and well-being. The reason is that these factors could be more influential on the academic performance than gender.
- ▶ Universities must integrate mental health in the academic planning strategy by promoting balanced workloads, developing positive teacher-student relationships and creating positive educational environments that equally empower the achievement of educational success by both male and female students.

References

- Aliyeva, K., Aliyeva, T., Jabbarov, R., & Mammadli, İ. (2021). Students' values and their mental health during pandemic. *Propósitos y Representaciones*, 9(SPE3), e1183. <https://doi.org/10.20511/pyr2021.v9nSPE3.1183>
- Alshehri, E. A. R. (2021). Mental well-being among health science specialty female students in Riyadh, Saudi Arabia. *Middle East Current Psychiatry*, 28(1), 15. <https://doi.org/10.1186/s43045-021-00096-7>
- Bobowik, M., Basabe, N., & Páez, D. (2015). The bright side of migration: Hedonic, psychological, and social well-being in immigrants in Spain. *Social Science Research*, 51, 189–204. <https://doi.org/10.1016/j.ssresearch.2014.09.011>
- Burris, J. L., Brechting, E. H., Salsman, J., & Carlson, C. R. (2009). Factors associated with the psychological well-being and distress of university students. *Journal of American College Health*, 57(5), 536–544. <https://doi.org/10.3200/JACH.57.5.536-544>
- Chernyshenko, O. S., Kankaraš, M., & Drasgow, F. (2018). Social and emotional skills for student success and well-being: Conceptual framework for the OECD study on social and emotional skills. *OECD Education Working Papers*, 173. OECD Publishing. <https://doi.org/10.1787/db1d8e59-en>
- Compas, B. E., Wagner, B. M., Slavin, L. A., & Vannatta, K. (1986). A prospective study of life events, social support, and psychological symptomatology during the transition from high school to college. *American Journal of Community Psychology*, 14(3), 241–257. <https://doi.org/10.1007/BF00911173>
- De Cates, A., Stranges, S., Blake, A., & Weich, S. (2015). Mental well-being: An important outcome for mental health services? *The British Journal of Psychiatry*, 207(3), 195–197. <https://doi.org/10.1192/bjp.bp.114.151407>
- Delle Fave, A., Brdar, I., Freire, T., Vella-Brodrick, D., & Wissing, M. P. (2011). The eudaimonic and hedonic components of happiness: Qualitative and quantitative findings. *Social Indicators Research*, 100(2), 185–207. <https://doi.org/10.1007/s11205-010-9632-5>
- Eide, E. R., Showalter, M. H., & Goldhaber, D. D. (2010). The relation between children's health and academic achievement. *Children and Youth Services Review*, 32(2), 231–238. <https://doi.org/10.1016/j.childyouth.2009.08.019>
- Fabrigar, L. R., & Wegener, D. T. (2011). *Exploratory factor analysis*. Oxford University Press.
- Fen, C. M., Isa, I., Chu, C. W., Ling, C., & Ling, S. Y. (2013). Development and validation of a mental wellbeing scale in Singapore. *Psychology*, 4(07), 592.
- Gabrielli, S., Las Hayas, C., Hjemdal, O., Ledertoug, M., Guðmundsdóttir, D. G., & Ólafsdóttir, Á. S., on behalf of the UPRIGHT consortium. (2018, May 21–24). The UPRIGHT project: Designing and validating resilience-based interventions for promoting mental wellbeing in early adolescence. In *Proceedings of the 12th EAI International Conference on Pervasive Computing Technologies for Healthcare* (pp. 352–355). ACM. <https://doi.org/10.1145/3240925.3240955>
- Galderisi, S., Heinz, A., Kastrup, M., Beezhold, J., & Sartorius, N. (2015). Toward a new definition of mental health. *World Psychiatry*, 14(2), 231–233. <https://doi.org/10.1002/wps.20231>
- Heckhausen, J., & Chang, E. S. (2009). Can ambition help overcome social inequality in the transition to adulthood? Individual agency and societal opportunities in Germany and the United States. *Research in Human Development*, 6(4), 235–251. <https://doi.org/10.1080/15427600903281244>
- Hiester, M., Nordstrom, A., & Swenson, L. M. (2009). Stability and change in parental attachment and adjustment outcomes during the first semester transition to college life. *Journal of College Student Development*, 50(5), 521–538. <https://doi.org/10.1353/csd.0.0089>

- Jebril, N., Matthews, J., & Loveless, M. (2017). Societies in flux: Media, democratization and political socialization. *Interactions: Studies in Communication & Culture*, 8.
- Joshanloo, M., & Weijers, D. (2019). A two-dimensional conceptual framework for understanding mental well-being. *PloS one*, 14(3), e0214045. <https://doi.org/10.1371/journal.pone.0214045>
- Kayyali, M. (2023). The relationship between rankings and academic quality. *International Journal of Management, Sciences, Innovation, and Technology*, 4(3), 1–11. <https://doi.org/10.5281/zenodo.8224406>
- Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62(6), 617–627. <https://doi.org/10.1001/archpsyc.62.6.617>
- Kiuru, N., Pakarinen, E., Vasalampi, K., Silinskas, G., Aunola, K., & Poikkeus, A. M., et al. (2014). Task-focused behavior mediates the associations between supportive interpersonal environments and students' academic performance. *Psychological Science*, 25(4), 1018–1024. <https://doi.org/10.1177/0956797613512331>
- Parajuli, M., & Thapa, A. (2017). Gender differences in the academic performance of students. *Journal of development and social engineering*, 3(1), 39-47. <https://doi.org/10.3126/jdse.v3i1.27958>
- Ramanjaneyulu, S., & Jalandharachari, A. S. (2024). The Moderation Role of Gender and Educational Level in the Effect of Mental Well-being on Academic Procrastination. *Journal of the Indian Academy of Applied Psychology*. <https://jiaap.in/wp-content/uploads/2024/08/36-Sanjeevagani.pdf>
- Shabani, J., & Damavandi, A. J. (2011). The importance of gender as a moderator for the relationship between emotional intelligence and mental health of adolescents. *Asian Social Science*, 7(9), 142–148. <https://doi.org/10.5539/ass.v7n9p142>
- Steinmayr, R., Meißner, A., Weidinger, A. F., & Wirthwein, L. (2014). Academic achievement. In L. H. Meyer (Ed.), *Oxford bibliographies in education*. Oxford University Press. <https://doi.org/10.1093/OBO/9780199756810-0108>
- Tabbodi, M., Rahgozar, H., & Makki Abadi, M. M. (2015). The relationship between happiness and academic achievements. *European Online Journal of Natural and Social Sciences: Proceedings*, 4(1 (s)), pp-241. https://european-science.com/eojnss_proc/article/view/4227
- World Health Organization. (2004). *Promoting mental health: Concepts, emerging evidence, practice: Summary report*. <https://apps.who.int/iris/handle/10665/42940>
- World Health Organization. (2018). *Mental health: Strengthening our response (Fact sheet)*. <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
- World Health Organization. (2019). *World health statistics 2019: Monitoring health for the SDGs, sustainable development goals*. <https://www.who.int/publications/i/item/9789241565707>