

PERCEIVED STRESS, COPING STRATEGIES, AND PSYCHOLOGICAL WELL-BEING AMONG UNIVERSITY STUDENTS

Soina Aziz¹, Ayesha Ali¹, Ameer Hamza², and Saira Majid Sheikh¹

¹*Department of Clinical Psychology, the Superior University, Lahore, Pakistan*

²*Department of Professional Psychology, Bahria University Lahore Campus, Lahore 54600, Pakistan*

Corresponding Author: Sonia Aziz, Email: soniaaziz002@gmail.com

Abstract

Psychological well-being of students is affected by stressors of university life. Academic load, terrifying examination system, and worries about the future can cause a lot of stress among students. Besides that, the inaccessibility of mental health services in universities also help responsible for reduction in maintain the wellbeing. The students interpret stress and which coping mechanisms support their transition through the early years of adulthood define their psychological well being. The present research aimed at exploring the relationship among perceived stress, coping strategies, and psychological well, being of university students. This study used a correlational research design. Through convenience sampling, the total data was collected from 327 undergraduate students in the age group of 18–25 years. To evaluate stress, coping, and mental health, self-report questionnaires were used to collect the data. The analysis conducted using Pearson correlation indicates the association of perceived stress and psychological well-being. The students' coping strategies positively associated with the psychological well-being of the students. In addition, coping strategies were negatively correlated to perceived stress. Multiple regression analysis revealed that perceived stress and coping strategies could significantly predict psychological well-being. Coping strategies were less effective than perceived stress. Findings revealed that poor psychological well-being is associated with higher perceived stress whereas association with more positive psychological well-being was greater use of adaptive flexible coping. We can, therefore, conclude that looking at college students' stress perceptions and coping is important. Stress intervention programs help enhance coping which might bring about psychological well-being and later affect mental health university settings.

Keywords: *Perceived stress, coping strategies, psychological well-being, university students, mental health.*

Introduction

University premises feels less like a place of learning and more like a sustained test of endurance. Every semester brings tighter curves on grade graphs, job adverts with no guarantee of work after graduation, rent that climbs faster than any part time wage plus an unspoken rule that a full social calendar is part of the degree. The result is a continuous inner pressure that outstrips the tactics students own for handling it and stress reports the psychological concerns among university students across the globe (Adeeb et al., 2026; Beiter et al., 2021; Majumdar et al., 2023).

Perceived stress is the personal verdict on how close life feels to tipping into chaos, the sense that demands outrun control, not the simple count of deadlines or bills (Cohen et al., 1983). Two undergraduates can share the same course load - one sleeps eight hours, the other lies awake cataloguing disasters. Earlier work shows the second student is the likelier to feel emotionally drained, anxious, low, short of sleep and quietly disappointed with life (Pérez-Jorge et al., 2025; Shahzadi et al., 2024; Yang et al., 2023). These results emphasize that students' perception of stress significantly influences their mental health even more than the amount of stress they actually experience.

Being a student at a university often coincides with the phase of emerging adulthood, which is characterized by identity exploration, setting high standards for oneself, and being very sensitive to evaluation and uncertainty (Arnett et al., 2022). University students have to cope with study changes, social demands, and the uncertainty of their future career while often lacking sufficient psychological support. Studies in various cultures have revealed that academic and social stresses, if persistent and coupled with the inability to cope properly, may lead to psychological distress (Auerbach et al., 2021; Howard et al., 2021).

Mental health is not merely the absence of mental disorders but also encompasses positive mood, a feeling of meaning, autonomy, the ability to cope with life necessities, and good relationships with others. At universities, students with higher psychological well-being are more engaged in academics, have better endurance for studying, and experience personal growth in general (Ryff, 2018). However, formerly conducted studies continuously mention a negative correlation between perceived stress and psychological well-being. Students who consider their stress level as too much are more prone to emotional instability and have less satisfaction with their life (Beiter et al., 2021; Yang et al., 2023).

While perceived stress can negatively impact individuals' psychological well-being, students are very diverse in their reaction to stressful situations. This variation has made researchers explore coping strategies more deeply, which are the mental and behavioral steps individuals take to manage stress and its requirements (Lazarus & Folkman, 1984). Coping is presently seen as a versatile and dynamic process rather than a stable character trait since it is influenced by both the context and the individual's available resources. It has recently been accentuated in the literature that students' ways of dealing with stress is a major factor in whether stress brings emotional problems or psychological strength (Compas et al., 2021).

Coping strategies are generally divided into two major classes, those that contribute to one's well-being and those that, unfortunately, do not. The former or adaptive strategies cover the whole gamut of human activities and include getting to the bottom of issues, formulating the way forward, looking at the bright side, accepting the challenge, exercising mindfulness, and using social support, among others. It is found that students who resort to such ways report lower stress levels, thereby, being psychologically healthier and happier to a greater extent (Freire et al., 2020; Zacher & Rudolph, 2021). Their emotional regulation skills are top notch, and they do not succumb to mental breakdowns even when the academic tasks are really demanding.

In contrast, the use of unproductive coping methods such as turning away from problems, denying the situation, constantly thinking of the worst scenarios, pushing one's obligations aside, and self-blaming have been experimentally and theoretically associated with increased levels of perceived stress and worse mental health status (Rogowska et al., 2020; Alduais et al., 2022). While these kinds of reactions may help one ease their discomfort for the moment, generally, they have the effect of deepening psychological unrest in the long run. This especially refers to situations in academic settings where the sources of stress are mostly persistent and, thus, unavoidable.

Researches pointed out the importance of coping flexibility which is basically changing one's coping strategies according to the different situations. Those students that have opted to give up inefficient coping methods and take on the ones that fit have been found to benefit from less stress and healthier psychological wellbeing (Cheng et al., 2021; Park et al., 2023). This study suggests that mental health in the university setting is determined less by the reliance on one single coping strategy and more by the adjustment of coping responses according to new challenges.

Moreover, Freire et al. (2020) has proved that the employment of coping strategies can act as a protective factor against the negative influence of perceived stress on psychological well-being. Students who adopted constructive coping techniques were less susceptible to the negative impacts of academic stress on life satisfaction, while the ones who resorted to unhelpful coping experienced greater emotional distress. In the same way, Alduais et al. (2022) reported that students who employed flexible coping strategies kept their psychological health in good condition even though they disclosed moderate to high levels of stress.

Such results echo the stress and coping transactional model, which sets out that psychological outcomes are determined by the interaction between a person's stress appraisal and coping (Lazarus & Folkman, 1984). Besides that, self-determination theory implies that successful coping in a situation will foster psychological well-being through the enhancement of autonomy, competence, and emotional control. On the other hand, ineffective coping strategies deprive these basic psychological needs and thus lead to mental health deterioration (Ryan & Deci, 2020).

Existing global trends show the urgency of studying these variables. Mental health problems among university students keep on rising, mainly due to fierce academic competition, lack of money, and scarce availability of psychological support services, according to the World Health Organization (WHO, 2022; Auerbach et al., 2021). In collectivistic societies like Pakistan, students may also get stressed because of their parents' expectations, the need to help financially, and the pressure of the surrounding social environment (Shahzadi et al., 2024). These issues not only increase the level of stress that the students perceive but also shape the ways in which they respond to difficulties in a culture-specific manner (Hassan et al., 2021; Zaman et al., 2024).

Although there is an increase in studies on university students' mental health worldwide, research that investigates perceived stress, coping strategies, and psychological well-being concurrently is still quite rare in developing and collectivistic societies (Adeeb et al., 2022; Sher et al., 2023). Most studies to date emphasize either the level of stress or mental health outcomes and hence do not sufficiently delve into the coping mechanisms that might act as mediators to explain the psychological well-being differences among students (Alduais et al., 2022; Majumdar et al., 2023). For example, students in South Asia, where there is a lot of family expectations, high academic demands, and financial challenges, may experience and react to stress differently as compared to the Western situation (Hassan et al., 2021; Zaman et al., 2024). These unintegrated studies lead to studies that explore perceptions of stress, coping mechanisms, and mental health being conducted separately.

One way to consider psychological well-being is through the lens of perceived stress and coping strategies among university students. These three variables can explain various aspects of life among young adults in transition. It is believed that a more thorough understanding of how students perceive stress and what coping strategies they use to handle it can be beneficial in devising culturally sensitive mental health services and preventive initiatives. Moreover, university counseling can be better prepared to strengthen students' resilience and ensure their mental health by using such findings (Cheng et al., 2021; World Health Organization, 2022).

Objectives of the Study

The present study has the following objectives:

1. To determine the relationship between perceived stress, coping strategies, and psychological well-being among university students.
2. To assess whether perceived stress, coping strategies, and psychological well-being are significantly correlated among university students.

3. To examine the predictive role of perceived stress and coping strategies in explaining psychological well-being among university students.

Hypotheses

Based on the evidence from existing literature, the present research hypothesizes that:

1. There would be a significant relationship between perceived stress, coping strategies, and psychological well-being among university students.
2. Perceived stress and coping strategies would be significant predictors of psychological well-being among university students.

Rationale of the study

University education in Pakistan is continuously becoming less certain, more academically demanding, and strongly socially expected. For numerous students, higher education is a means of not only a learning journey but also is through various ways associated with family reputation, financial stability, and future success. Therefore, in such an environment, stress is more than a mere personal experience; it results from the combined pressure of academic duties, social expectations, and shortage of institutional support. Even though stress among university students in Pakistan is well known, their psychological well-being often gains lesser attention compared to their academic performance.

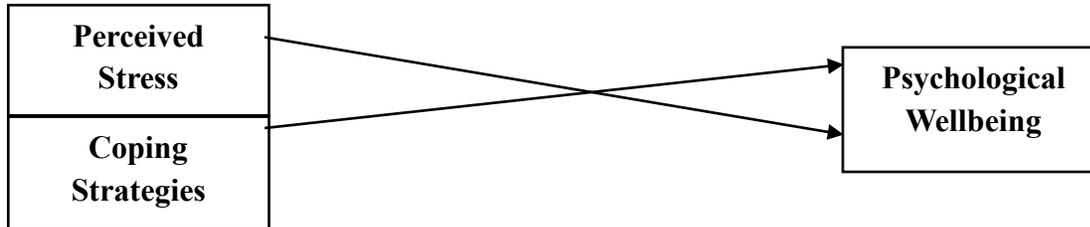
The work of scholars worldwide has led to a better understanding of stress and coping mechanisms, yet these models might not be entirely suitable for the collectivistic and family, oriented cultural context of Pakistan. The Pakistani students who depend on coping methods are the ones employing emotional regulation, religious activities, and getting help from the family members. These methods are dictated by cultural and social norms but hardly ever form the subject of empirical research on student mental health. The discrepancy underlines the significance of the stress level as well as the stress management of students in their daily social and cultural surroundings. Pakistani society has strong stigmatization of mental health issues, thus limiting the discussion of such topics, even lessening the availability of the professional and institutional support.

Consequently, students' primary psychological resources are usually their coping strategies, which determine if the stress experienced leads to resilience or emotional problems. Therefore, it is necessary and relevant to understand the interaction between perceived stress, coping strategies, and psychological well-being. Instead of limiting the analysis only to problems or deficits, this research is grounding psychological well-being as the main aspect of the analysis to produce contextually sensitive insights. The results are expected to facilitate the creation of culturally correct interventions and give a more profound comprehension of student mental health in Pakistani higher education institutions. Moreover, mental health discussions in Pakistan get constrained by social stigmatization, the absence of professional help, and scarce institutional engagement. Consequently, students tend to rely mostly on coping strategies as their psychological resources, which dictate if stress can lead to the development of resilience or to emotional problems. Thus, it is quite significant to comprehend the association between the perceived stress, coping strategies, and psychological health of the students.

Conceptual Model

Figure 1

Conceptual Model of Research



Method

Sample

The study consisted of 327 university students ranging between 18 and 25 years of age. The participants were chosen through convenience sampling from public as well as private universities throughout Pakistan. The sample was composed of students of both genders who were pursuing undergraduate studies from various academic disciplines.

Demographic Information sheet

A demographic sheet for self, report was employed to collect basic background data from the participants. It contained information about their age, gender, marital status, residence, family type (nuclear or joint), and socioeconomic status.

Perceived Stress Scale, 10 (PSS, 10; Cohen et al., 1983)

Perceived stress was gauged by the 10, item Perceived Stress Scale (PSS, 10) which is a recognized instrument adopted in most of the recent psychological research. The scale evaluates how frequently people feel that their lives have been unpredictable, overloaded with stress, or difficult to control during the past month. Every item is rated on a 5, point scale from 0 (never) to 4 (very often).

Coping Flexibility Scale (CFS; Kato, 2012)

Coping strategies were measured with the Coping Flexibility Scale (CFS), which considers coping as a flexible and situationally, dependent process rather than a fixed behavior pattern. It assesses the ability of the person to effectively disengage from the use of non, working coping strategies and to move on to more appropriate ways of handling stress. The CFS comprises 10 items that are scored on a 4, point Likert scale, where 0 means "not applicable" and 3 means "very applicable". Higher scores indicate greater coping flexibility. Previous studies found that greater coping flexibility was associated with lower levels of stress and better psychological well, being of university students. The scale has shown good internal consistency reliability, with Cronbach's alpha coefficients being around .80.

Warwick–Edinburgh Mental Well-Being Scale (WEMWBS; Tennant et al., 2007)

Psychological well, being was evaluated through the WarwickEdinburgh Mental Well, Being Scale (WEMWBS). This tool is a strength, based, positive measure that reflects both the emotional and psychological dimensions of well, being. There are 14 statements in total, and responses are given on a 5, point Likert scale ranging from 1 (none of the time) to 5 (all of the time). Higher total scores indicate better psychological well, being. Recently, the WEMWBS has been extensively used in research with university students and it has demonstrated strong reliability, with Cronbach's

alpha values frequently above .90. Since it focuses on positive mental health, the scale is very appropriate for use with student samples from the general population.

Procedure

After ethical clearance from the local institutional ethics committee, data were collected from students studying at various universities and higher education institutions of Pakistan. A letter of authorization from the Department of Psychology and approved by the university authorities was used to obtain official permission to meet students. Participants were reached in person through classroom visits and also online to get a wider participation. Students were given the information about the purpose of the study, the voluntary nature of their participation, and their right to withdraw at any time without giving any reason before completing the questionnaires. Assurances were given to the participants that their responses would be kept confidential and anonymous, and written informed consent was obtained from all the respondents. Undergraduates of the 18, 25 age group, and who met the inclusion criteria, first filled out a demographic information form and then the Perceived Stress Scale, 10, the Coping Flexibility Scale, and the Warwick, Edinburgh Mental Well, Being Scale. Both paper and online questionnaires were used to collect data depending on the preference. Students were given clear instructions and motivated to give honest answers. The researcher was present to clarify any confusions during the data collection. Participants required approximately 15 to 20 minutes to complete the questionnaires.

Results

Table 1

Demographic Profile of Participants (N = 327)

Respondents' Characteristics	N	%	M (SD)
Age (years)			22.34 (1.47)
Gender			
Male	146	44.6	
Female	181	55.4	
Educational Level			
BS	312	95.4	
MS	15	4.6	
Marital Status			
Single	287	87.8	
Married	40	12.2	
Family System			

Respondents' Characteristics	N	%	M (SD)
Nuclear	224	68.5	
Joint	103	31.5	
Socioeconomic Status			
Low	68	20.8	
Middle	193	59.0	
High	66	20.2	
Residence			
Rural	219	67.0	
Urban	108	33.0	

Note. M = Mean, SD = Standard Deviation

Table 1 shows the average age of the study participants was about 22 years ($SD = 1.47$), indicating that the sample was representative of students who are in early adulthood. Female students constituted a little over half of the sample (55.4%) while male students made up the remaining 44.6%. Most of the participants were students in undergraduate BS programs (95.4%), whereas only a few were MS degree students (4.6%). Almost all the respondents were single (87.8%) and most of them came from a nuclear family (68.5%). When asked about their socioeconomic background, a majority of the students classified themselves as middle class (59.0%). Furthermore, a bigger proportion of the respondents reported living in rural areas (67.0%) than those from urban areas (33.0%).

Table 2

Descriptive Statistics and Correlation Analysis (N = 327)

Sr.	Variables	M	SD	1	2	3
1	Perceived Stress	23.96	6.72	—	-.42**	-.59**
2	Coping Strategies	25.14	5.48	—	—	.51**
3	Psychological Well-Being	48.27	9.12	—	—	—

Note. $p < .01$

The results of the Pearson correlation analysis displayed in Table 2 illustrate the interrelationships among the variables of the study. Perceived stress was not only significantly but also negatively

correlated with psychological well, being. This means that the students who were more stressed had lower levels of psychological well, being. Perceived stress was also significantly negatively associated with coping strategies. In other words, when one gets stressed more, one is inclined to use less efficient coping methods. In contrast, a positive relationship was found between coping strategies and psychological well, being.

Table 3

Multiple Regression Analysis for Predicting Psychological Well-Being among University Students (N = 327)

Predictor	B	SE	β	t	p	CI
Constant	30.18	3.94	—	7.66	.000**	22.43 – 37.93
Perceived Stress	-0.88	0.08	-0.53	-11.00	.000**	-1.04 – -0.72
Coping Strategies	0.69	0.07	0.39	9.86	.000**	0.55 – 0.83
R ²	.58**					
ΔR^2	.57					
F	222.14					

Note. $p < .01$; CI = Confidence Interval

Table 3 displays the results of multiple regression analysis which was carried out to determine whether perceived stress and coping strategies could predict the psychological well, being of university students. The regression model was significant statistically, $F(2, 324) = 222.14$, $p < .001$, revealing a good fit of the model. The two variables, perceived stress and coping strategies, together explained 58% of the variation in psychological well, being. According to the results, perceived stress significantly and negatively predicted psychological well, being ($B = 0.88$, $\beta = 0.53$, $p < .001$), meaning that students who felt more stressed also felt less mentally well. On the other hand, coping strategies significantly predicted psychological well, being in a positive way ($B = 0.69$, $\beta = 0.39$, $p < .001$), showing that students who coped more effectively were happier mentally. A standardized beta comparison revealed that the impact of perceived stress on psychological well, being was greater than that of coping strategies. In sum, the findings from this research suggest that a students psychological well, being depends on both their perception of stress and their ability to cope with it.

Discussion

This research considered the connections among perceived stress, coping mechanisms, and psychological well, being of university students. Results, on the whole, demonstrated agreement with the aims and the predicted outcomes of the study. Both perceived stress and coping strategies were found to be significantly related to the psychological well, being of the students and, in combination, accounted for the variations in the students' mental health. These results correspond to the psychological models that emphasize the dual contribution of stress perception and coping behavior in determining a persons well, being.

According to the first hypothesis, there is a negative correlation between perceived stress and psychological well, being. Thus, students who perceive their life as full of stress, uncontrollable, and difficult are more likely to have a low level of psychological well, being. University students' studies have also shown this kind of relationship, where emotional exhaustion, life satisfaction decline, and lower psychological functioning are considered effects of higher levels of perceived stress (Beiter et al., 2021; Yang et al., 2023). Although, Saleem et al. (2018) found that academic support reduce academic stress. The present findings are in agreement with the stress theory that is based on the idea that the individuals subjective evaluation of the stressor is what counts most for psychological effect, rather than the mere existence of the stressor (Lazarus & Folkman, 1984). The results also revealed that one of the biggest impacts of stress was on coping flexibility. Students with a greater stress load will most probably find it harder to change their coping behavior. It is shown by earlier studies that concentrated or very stressful periods limit an individual's capability of coping through a variety of strategies, thus making them rely on rigid or less, appropriate ways (Compas et al., 2021; Park et al., 2023). If students perceive stress as something beyond their control, this could lead to them being stuck with the same coping methods and thus, it may increase the risk of psychological problems.

Further, Second hypothesis, coping strategies, assessed by means of coping flexibility, were found to be negatively associated with psychological distress while positively with psychological well, being. Those students who were able to switch more easily between their different coping strategies experienced a higher level of psychological well, being. This finding agrees with the mounting research which points out the fact that mental health can be protected by flexible and appropriate coping, especially in hostile surroundings such as at universities (Kato, 2012; Cheng et al., 2021). Coping flexibility enables individuals to let go of ineffective strategies and choose more helpful ones, thus assisting both emotional regulation and resilience.

One of the main findings of the multiple regression was that psychological well, being of university students can be predicted by their perceived stress and coping strategies. Perceived stress was found to be the strongest negative predictor, which means that the mental health of students is greatly affected by their stress perception. Likewise, coping flexibility was found to be a significant predictor, indicating that it has a separate influence on psychological well, being. These results corroborate the findings of a number of studies which have demonstrated that proficient coping can mitigate the detrimental effects of stress and that limited or ineffective coping raises the chance of psychological problems (Alduais et al., 2022; Freire et al., 2020).

The combined influence of perceived stress and coping strategies basically reveals the continuous interplay between risk factors and protective factors. Those students who are constantly overwhelmed by stress yet have the willingness to continually alter their coping mechanisms will probably be more able to safeguard their psychological well, being. Conversely, the ones who are under extreme stress and have rigid, usually maladaptive coping patterns are likely to have poorer mental health. This finding is in line with the theories of self, regulation and resilience which pinpoint adaptive coping as a crucial factor for maintaining mental health amidst adverse situations (Ryan & Deci, 2020; Zacher & Rudolph, 2021).

This implies that the topic of students' mental health is a matter of worldwide concern and is particularly relevant to those students who are subjected to intensive academic pressure, live in conditions of financial instability and barely have access to psychological support services (World

Health Organization, 2022; Auerbach et al., 2021). Mental health and practices around it are still taboo in Pakistan and students face a significant challenge in getting access to counseling services. In such a situation, the students' coping mechanisms could largely determine their capacity to manage stress and their mental well, being.

A few limitations of this study: Firstly, the use of a cross, sectional design limits the level of causality that can be derived from the results. Moreover, the use of self, report questionnaires may have led to biased responses. Future researchers should consider using longitudinal designs that would allow them to examine the changes in stress, coping strategies, and psychological well, being over time. Qualitative research would also be very useful in revealing the nuances of culturally, based coping strategies. In spite of its limitations, the study contributes to a better understanding of how psychological variables influence the well, being of college students.

Conclusion

The findings of the present study have confirmed that perceived stress and coping styles are two of the main factors that influence the mental health of university students. The research outcomes show that students who rated their stress level as high are likely to have a low psychological well, being, while those who are more with a wider range of coping have a good mental health status. In addition, stress perception and coping strategies together account for a considerable piece of the variance in psychological well, being, which therefore highlights the joint effect of these two variables.

The study result underscores the importance of students' re, interpretation of stress and their coping effectiveness. Psychological well, being during early adulthood is very important as it forms the foundation for long, term emotional stability, academic success, and good social relationships. Physiological interventions that aim at helping students to reduce their stress perceptions, acquire a flexible way of coping, and strengthen emotional regulation are going to be the basis of mental health support. In addition, the study finding is consistent with the general idea that the development of one's internal psychological resources such as adaptive coping and resilience is a key factor in the promotion of positive mental health in university settings. Therefore, higher education faculties ought to do more in the direction of mental health through initiatives that include stress management programs, coping skills training, as well as psychologically supportive and easily accessible services. Through such means, one can be assured of the students improvement in their psychological well-being and overall quality of life.

References

- Alduais, A. M., Alhammadi, A., Alrashdi, A., Al-Shami, S. A., & Al-Rubaiee, A. A. (2022). Coping strategies, stress, and psychological well-being among university students. *International Journal of Environmental Research and Public Health*, 19(15), 9154.
- Auerbach, R. P., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, P., Demyttenaere, K., Ebert, D. D., Green, J. G., Hasking, P., Murray, E., Nock, M. K., Pinder-Amaker, S., Sampson, N. A., Stein, D. J., Vilagut, G., Zaslavsky, A. M., & Kessler, R. C. (2021). Mental health of college students. *Annual Review of Clinical Psychology*, 17, 165–192.
- Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2021). The prevalence and correlates of stress among university students. *Journal of Affective Disorders*, 279, 46–55.
- Cheng, C., Lau, H. P. B., & Chan, M. P. S. (2021). Coping flexibility and psychological adjustment to stressful life changes: A meta-analytic review. *Psychological Bulletin*, 147(4), 377–395. <https://doi.org/10.1037/bul0000325>

- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385–396.
- Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., Williams, E. K., & Thigpen, J. C. (2021). Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. *Psychological Bulletin*, 147(3), 241–272.
- Freire, C., Ferradás, M. D. M., Núñez, J. C., Valle, A., & Vallejo, G. (2020). Stress and life satisfaction in university students: The mediating role of coping strategies. *Journal of Happiness Studies*, 21, 1181–1200.
- Hassan, S., Gul, S., & Javed, A. (2021). Academic stress and mental health among university students in South Asia: The role of family expectations and sociocultural pressure. *Asian Journal of Psychiatry*, 56, 102533.
- Kato, T. (2012). Development of the Coping Flexibility Scale: Evidence for the coping flexibility hypothesis. *Journal of Counseling Psychology*, 59(2), 262–273.
- Majumdar, P., Biswas, A., & Sahu, S. (2023). Psychological distress among university students: A systematic review and meta-analysis. *BMC Psychology*, 11, Article 142. <https://doi.org/10.1186/s40359-023-01142-3>
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, Article 101860.
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick–Edinburgh Mental Well-Being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes*, 5, 63.
- World Health Organization. (2022). *World mental health report: Transforming mental health for all*. World Health Organization. <https://www.who.int/publications/i/item/9789240049338>
- Yang, C., Chen, A., & Chen, Y. (2023). Perceived stress and psychological well-being among university students: The mediating role of resilience. *Current Psychology*, 42, 10124–10135.
- Zacher, H., & Rudolph, C. W. (2021). Individual differences and changes in subjective well-being during the early stages of the COVID-19 pandemic. *Journal of Vocational Behavior*, 125, 103548. <https://doi.org/10.1016/j.jvb.2020.103548>
- Zaman, U., Nawaz, S., & Tariq, M. (2024). Stress, coping strategies, and psychological well-being among university students in collectivistic cultures. *Current Psychology*, 43, 11834–11846. <https://doi.org/10.1007/s12144-023-05211-9>
- Adeeb, M., Ghani, M. A., Hillaluddin, A. H., & Flesia, L. (2026). Meaning in Life Mediates Associations Between Gratitude, Forgiveness, Spirituality, and Mental Health in Postgraduate Students. *European Journal of Investigation in Health, Psychology and Education*, 16(2), 25.
- Shahzadi, G., Qasmi, A. R., Shah, S. H. S., Hafeez, S., & Adeeb, M. (2024). Antisocial Behavior and Suicidal Ideation in University Students: Unpacking the Moderating Role of Parenting Styles. *Contemporary Journal of Social Science Review*, 2(04), 2482-2494.
- Saleem, M., Adeeb, M., Hafeez, S., Siddique, A. R., & Qasim, A. (2018). Academic support and academic achievement of university students: Mediating role of academic stress. *Journal of Research and Reviews in Social Sciences Pakistan*, 1(1), 72-81.
- Adeeb, M., Ghani, M. A., & Hillaluddin, A. H. (2022). Resilience and forgiveness as protective factors for mental wellbeing of university students: mediating role of mindfulness. *International Journal of Science, Mathematics and Technology Learning*, 30(2), 783-811.
- Sher, A., Hussain, S., & Adeeb, M. (2023). Psychological distress and life satisfaction during covid-19 pandemic among Pakistani university students: the protective role of spiritual intelligence. *Review of Applied Management and Social Sciences*, 6(2), 501-513.