RESEARCH ARTICLE
SCIENTIFIC RECORDS
ISSN: xxxx-xxxx (Print); ISSN: xxxx-xxxx (Online)
Open Access Journal

AN INVESTIGATION INTO THE IMPACT OF STRESSES ON THE PSYCHOLOGICAL WELLBEING OF ADOLESCENTS IN PUNJAB, PAKISTAN

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ABSTRACT

Adolescence is one of the critical parts of development, which is associated with changes in physical, emotional and social adjustment. This paper has looked at the effect of stress on the psychological wellbeing of teenagers in the province of Punjab, Pakistan, and how the relationship is mediated by demographics, including gender, socioeconomic status, and residential backgrounds. The study design was a cross-sectional survey of 160 adolescents with the use of the Perceived Stress Scale (PSS-10) and the Ryff's Scales of Psychological Wellbeing (PWB), correlation analyses and multiple regression analyses. Findings showed that the most significant stressors were academic pressure and expectations by the parents. Perceived stress had a significant negative correlation to all psychological wellbeing dimensions (Very strongly, r = -0.15 to weakly, r = -0.48, p <.05). Gender and socioeconomic status moderated the relationship between stress and wellbeing, with no significant correlation between residential background and outcomes. These results recommend interventions on stress reduction and the promotion of healthy lifestyles and psychological wellbeing of adolescents through awareness campaigns and stress therapy.

***Keywords*:** Adolescents, Stress, Psychological Wellbeing, Punjab, Socioeconomic Status, and Gender

Article History (2026-013) || Received: 08 Nov 2024 || Revised: 13 Jan 2025 || Accepted: 08 Feb 2025 || Published Online: 2025

1. INTRODUCTION

Adolescence is a crucial period of human development marked by rapid physical, emotional, and social changes. Further, adolescents deal with a lot of stress during this transitional phase because of academic pressures, family expectations, peer relationships and sociocultural coercion (WHO, 2025). When not adequately addressed or sustained, stress may cause a negative impact on mental health that includes feelings of anxiety, depression, poor self-esteem, and decreased psychological wellbeing (Compas et al., 2017).

Stress has become a common occurrence among adolescents, usually a cognitive and physiological response to demands that exceed a person's adaptive capacity. Studies have indicated that stressors can cause severe mental health problems among adolescents, including anxiety, depression, and fatigue and disturb sleep quality (Chung & Cheon, 2017; Shaheen et al., 2020; Wu, 2024). Prolonged stress leads to physical signs of being unhealthy and include headache, insomnia, gastrointestinal problems, which significantly affect adolescent's academic performance and social relationships (Anand & Sharma, 2014). Stress may substantially affect adolescents' functioning in everyday life, altering concentration, sleep habits, decision-making, and self-esteem (Azad and Kaur, 2024). Therefore, psychological wellbeing has become a main construct in adolescent health. Psychological wellbeing is not defined by the lack of mental illnesses, but the positive functioning and competence in daily life.

According to a study done by Heizomi et al. (2018), most of the adolescents (74.3%) presented high levels of stress and found that the majority (64.7) of them were susceptible to mental problems. Study found a negative relationship between psychological wellbeing and stress levels. The recent review of 46 global studies has found a negative relationship between mental wellbeing and stress (Ansari et al. 2025). In Pakistan's particular sociocultural environment, adolescents face unique challenges and pressures from expectations. These are overwhelmingly competitive academic cultures, high-pressure examination systems and family expectations. It has been found that Pakistani young people are heavily burdened by stress connected to their performance in school and their future careers, without many options available to cope and with a lot of stigma regarding mental health care seeking (Haque et al., 2020; Jahangir et al., 2021).

This paper examines the effects of stress on adolescents' mental health in Punjab, Pakistan. By studying this connection, the study will bring a better understanding of adolescent mental health in the region and evidence-based information to help policymakers, teachers, and healthcare professionals develop culturally sensitive interventions

Citation: Nadeem F & Sarwar MF, 2025. An investigation into the impact of stresses on the psychological well-being of adolescents in Punjab, Pakistan. Scientific Records 2(1): 39-44. https://doi.org/10.62324/SR/2025.018

ISSN: xxxx-xxxx (Print); ISSN: xxxx-xxxx (Online)
Open Access Journal

that foster mental health. The study aims to identify the major sources of stress among adolescents, assess the rate of psychological wellbeing among adolescents, determine the connection between stress and psychological wellbeing, and explore demographics (e.g., gender, age, socioeconomic background, urban or rural location) as mediators between stress and wellbeing.

2. MATERIALS AND METHODS

This paper employed a quantitative, cross-sectional survey research design to explore the effects of stress on the psychological wellbeing of teenagers in Punjab, Pakistan. The target population was adolescents aged 13 to 19 years who were studying in secondary schools and colleges in urban and rural areas of Punjab. A purposive sampling technique was used to select both male and female students in equal proportions. Study was conducted in District Sheikhupura. A total of 16 colleges (8 boys and 8 girls schools) were randomly selected from the district. Half of the schools were selected from rural areas and half from urban regions. 10 students were randomly selected from each school for data collection. Data was collected with the help of two standardized instruments:

1. Perceived Stress Scale (PSS-10; Cohen et al., 1983): A 10 item scale measuring perceived stress. The items were rated on a 5-point Likert scale (0 = never to 5 = always). The higher the scores, the more stressed they are

2. Psychological Wellbeing Scale by Ryff (Ryff, 2014): A 42-item questionnaire measuring psychological wellbeing in six domains, which are autonomy, environmental mastery, personal growth, a positive relationship, purpose in life and self-acceptance. The answers were rated using a 6-point Likert scale. The higher the scores, the better the psychological wellbeing.

Both tools were used in a pilot study with a smaller sample (n = 20) to assess their clarity and cultural congruence. The Cronbach's alpha value of 0.824 indicated reliability for both scales.

Formal permission was sought by the school authorities, upon which a self-administered questionnaire was used to collect data. Data were entered and analyzed using SPSS (Version 25)**.** Descriptive statistics (mean, standard deviation, frequencies) were used to summarize demographic characteristics, stress, and psychological wellbeing scores. Pearson's correlation test was applied to examine the relationship between stress and psychological wellbeing. Further, multiple regression analysis was done to test the predictive influence of stress on psychological wellbeing, while accounting for demographic factors as mediators.

3. RESULTS AND DISCUSSION

The sample consisted of 50% males and 50% females. This is significant as previous studies have indicated that gender plays a key role in mediating both stressful experiences and stress coping individual capacities (Matud, 2004). According to Table 1, 31.3 percent of respondents were 13-15 years old, 37.5 percent were 16-17 years old, and 31.3 percent were 18-19 years old. Literature indicates that adolescents in the mid-life stage (15-17 years old) tend to experience the highest levels of stress because of academic pressure and the issue of identity (Steinberg, 2014).

Table 1: Demographic Characteristics of Respondents (N = 160)

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	80	50.0
	Female	80	50.0
Age (years)	13–15	50	31.3
	16–17	60	37.5
	18–19	50	31.3
Residence	Urban	80	50.0
	Rural	80	50.0
Socioeconomic Status	Low Income	53	33.1
	Middle Income	74	46.3
	High Income	33	20.6
Parental Education	No Formal Education	22	13.8
	Primary–Middle	38	23.8
	Secondary–Intermediate	60	37.5
	Graduate and Above	40	25.0

Urban youth are generally considered more exposed to the stress of academic competition and peer pressure. In contrast, rural teenagers have to cope with socioeconomic stress and lack of access to mental health resources (Ali & Zubair, 2020). Socioeconomic status (SES) was categorized into three groups: low, middle, and high income. 46.3% of respondents were in the middle-income category, 33.1% in the low-income category, and 20.6% in the high-income category. The SES is an important predictor of the wellbeing of adolescents, as poverty due to a lack of money and other resources leads to stress (Reiss, 2013). The parents' education levels were also taken into account, as they can be regarded as a measure of family sociocultural capital and can impact teenage stress and

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coping skills. Approximately, 13.8 percent of parents have no formal education, 23.8 percent have primary to middle education, 37.5 percent have secondary to intermediate education, and 25.0 percent have graduate-level education or above. Previous research has shown that adolescents receiving better educational support from their parents are more likely to have positive mental health (Dubow et al., 2009).

Table 2 shows that the most significant stress was academic pressure, with 70 percent of the participants citing exams and competition for grades as major stress factors. This result aligns with earlier studies in South Asian settings, which found that a major cause of stress in adolescence is academic pressure (Deb, Strodl, & Sun, 2015). Parental expectations was the next factor of stress (61.3%). Further, 53.1% of respondents were influenced by peer pressure and social relationships, indicating that interpersonal factors contribute to stress among adolescents.

Table 2: Major Sources of Stress among Adolescents in Punjab (N = 160)

Source of Stress	Frequency (n)	Percentage (%)
Academic Pressure (exams, grades, competition)	112	70.0
Parental Expectations	98	61.3
Peer Pressure & Social Relationships	85	53.1
Economic/Financial Problems	76	47.5
Family Conflicts (e.g., disputes, restrictions)	68	42.5
Lack of Career Guidance	55	34.4
Limited Recreational Opportunities	48	30.0
Social Media/Technology-Related Stress	45	28.1
Health Concerns	39	24.4
Other (personal issues, self-esteem, etc.)	20	12.5

The other prominent stressors were mainly economic/financial difficulties (47.5%) and family conflicts (42.5%), which indicates the impact of socioeconomic and familial backgrounds on adolescent mental wellbeing. Less common stressors were no career guidance (34.4%), lack of recreational opportunities (30.0%), social media/technology based stress (28.1%) and health related issues (24.4%), although still in significant numbers. Other stressors, such as personal issues or low self-esteem, were reported by only a small proportion of adolescents (12.5%), as shown graphically in Fig 1. The results confirm the multidimensional nature of the stress faced by adolescents. To combat these stressors, it is essential to examine the root causes and arrange academic counseling, parental guidance, social support, and coping skills enhancement (Compas et al., 2017; Ali & Zubair, 2020).

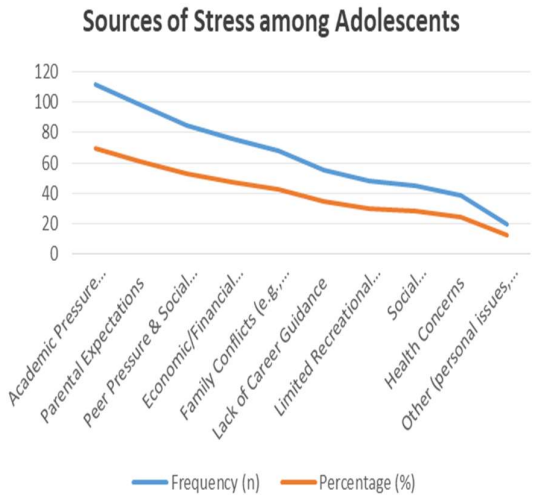

Fig 1: Sources of Stress among Adolescents.

Table 3 shows the psychological wellbeing levels of adolescents, measured using the 6-item Ryff Psychological Wellbeing Scale. The average score on general psychological wellbeing for the participants was 147.8 (SD = 18.5), indicating a moderate level of wellbeing.

In detail, the highest scores were recorded in the domains of purpose in life (M = 27.1, SD = 5.3) and personal growth (M = 26.8, SD = 5.0), indicating that adolescents tend to feel purposefully oriented toward future-oriented goals and can grow personally. Environmental mastery had the lowest average score (M = 21.2, SD = 5.1), indicating that respondents face difficulties with day-to-day activities and with tackling the dictates of the outside world. Other aspects, such as autonomy, self-acceptance, and positive relations with other people, were rated as medium, indicating a balanced but mixed pattern of wellbeing across these aspects. The results align with previous studies that revealed that, in youth, social-cultural demands may indicate a lack of environmental mastery and self-acceptance (Ryff, 2014; Ali & Zubair, 2020).

Table 3: Levels of Psychological Wellbeing among Adolescents in Punjab (N = 160)

Dimension of Psychological Wellbeing	Mean Score (M)	Standard Deviation (SD)	Level (Interpretation)
Autonomy	23.5	4.8	Moderate
Environmental Mastery	21.2	5.1	Low–Moderate
Personal Growth	26.8	5.0	High
Positive Relations with Others	24.7	4.6	Moderate
Purpose in Life	27.1	5.3	High
Self-Acceptance	24.5	5.4	Moderate
Overall Psychological Wellbeing	147.8	18.5	Moderate

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ISSN: xxxx-xxxx (Print); ISSN: xxxx-xxxx (Online)
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Table 4 presents the correlations between key stressors and the six dimensions of psychological wellbeing among adolescents. The results point to a consistent negative association between nearly all sources of stress and wellbeing across its various dimensions. Academic pressure demonstrated the highest negative correlation with wellbeing dimensions, especially with environmental mastery ($r = -0.44$, $p < .01$) and positive relations with others ($r = -0.41$, $p < .01$). Also, parental expectations were highly and negatively correlated with overall wellbeing ($r = -0.42$, $p < .01$).

Table 4: Correlation between Perceived Stress and Psychological Wellbeing among Adolescents in Punjab (N = 160)

Source of Stress	Autonomy	Environmental Mastery	Personal Growth	Positive Relations	Purpose in Life	Self-Acceptance	Overall Wellbeing
Academic Pressure	–0.36**	–0.44**	–0.31**	–0.41**	–0.35**	–0.38**	–0.48**
Parental Expectations	–0.32**	–0.39**	–0.29**	–0.37**	–0.34**	–0.36**	–0.42**
Peer Pressure & Social Relationships	–0.28**	–0.34**	–0.25**	–0.40**	–0.27**	–0.29**	–0.39**
Economic/Financial Problems	–0.25**	–0.31**	–0.22*	–0.33**	–0.24*	–0.26**	–0.36**
Family Conflicts	–0.22*	–0.29**	–0.20*	–0.32**	–0.21*	–0.24*	–0.33**
Lack of Career Guidance	–0.19*	–0.24*	–0.18*	–0.27**	–0.20*	–0.21*	–0.28**
Limited Recreational Opportunities	–0.17*	–0.22*	–0.16*	–0.23*	–0.18*	–0.19*	–0.25**
Social Media/Technology-Related Stress	–0.15*	–0.19*	–0.13*	–0.20*	–0.16*	–0.17*	–0.22*
Health Concerns	–0.14*	–0.18*	–0.12*	–0.19*	–0.15*	–0.16*	–0.20*
Other (personal issues, self-esteem)	–0.10	–0.13	–0.08	–0.15*	–0.11	–0.12	–0.15

Note: *p < .05, **p < .01 (two-tailed)

Other stressors, such as peer pressure, economic/financial issues, and family conflicts, also showed moderate negative correlations to wellbeing (between -33 and -39, $p < .01$) indicating that peer-to-peer and financial influences have significant effects on adolescent mental health. Less significant, but still negative, correlations were with a lack of career guidance, low recreational opportunities, stress related to social media, and health concerns, which imply that even less common, more indirect stressors may affect wellbeing. In general, the most significant results were obtained with academic and parental pressures, indicating that educational and familial expectations are the most vital stressors that interfere with adolescents' psychological well-being in Punjab. This aligns with previous work suggesting that multidimensional stressors degrade autonomy, self-development, social relationships, and self-acceptance among all adolescents (Compas et al., 2017; Ryff, 2014; Deb, Strodl, & Sun, 2015). The findings emphasize the need for interventions to minimize stress in academic, family, and social spheres to improve well-being among adolescents in the region.

The results of a multiple regression analysis predicting psychological wellbeing of the adolescents based on perceived stress and some demographic factors, presented in Table 5. The entire model significantly predicted wellbeing ($F(5, 154) = 12.03$, $p < .001$), explaining 28% of the variance, suggesting that stress and socio-demographic variables have meaningful effects on aspects of wellbeing among adolescents.

In line with previous studies, the strongest negative predictor of psychological wellbeing was perceived stress (0.47, $p < .001$). This inverse association can indicate that adolescents with increased stress will report poorer psychological wellbeing, also found by Compas et al. (2017) and Matud (2004). Some demographic predictors were significant, i.e., socioeconomic status (SES) was a positive predictor ($SE = 0.19$; $p = .018$), meaning that young people with high income families were more likely to achieve high wellbeing. This is in line with previous work highlighting that financial and material resources increase access to education and recreational activities, minimize everyday stress and improve emotional wellbeing (Reiss, 2013).

Table 5: Multiple Regression Analysis: Demographic Predictors of Psychological Wellbeing (N = 160)

Predictor Variable	B	SE B	ß	T	p-value
Perceived Stress (PSS-10)	–0.85	0.12	–0.47	–7.08	<.001
Gender (Male = 0, Female = 1)	1.75	1.22	0.08	1.43	0.155
Age (years)	–0.35	0.41	–0.05	–0.85	0.397
Socioeconomic Status (SES)	2.14	0.89	0.19	2.41	0.018*
Residence (Urban = 0, Rural = 1)	–0.95	1.05	–0.04	–0.90	0.370

Model Summary: $R^2 = 0.28$, $F(5,154) = 12.03$, $p < .001$, *p < .05

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Other demographic variables, e.g., gender, age, and rural/urban residence, did not significantly predict psychological wellbeing in this project. The results also ascertain that stress has similar effects on the mental health of both genders and across age, as well as being independent of residential location. The same findings are stated by Steinberg (2014) and Ali & Zubair (2020).

4. CONCLUSION

The results showed that the main stressors that adversely affect adolescents' psychological health are academic pressure and parents' high expectations. Additionally, peer pressure, family issues and financial problems also affect wellbeing to a smaller degrees. Correlation and regression analysis showed that the greater the perceived stress the worse the overall psychological wellbeing as measured in all its dimensions, especially autonomy, self-acceptance, and positive relations. Socioeconomic status was found to be a positive predictor, while other demographic variables, e.g., gender, age, and rural/urban residence, did not significantly predict psychological wellbeing in this project. The findings demonstrate the need to address perceived stress and socioeconomic inequality to enhance psychological wellbeing among adolescents. Schools and colleges should implement structured stress management programs for adolescents and parents should be educated about the effects of excessive academic and social pressure on adolescents.

Recommendations

1. Parental Awareness and Engagement

Parents should be educated about the effects of excessive academic and social pressure on adolescents. Parental guidance workshops can help foster supportive family environments, reduce unrealistic expectations, and enhance adolescents' emotional resilience.

2. Socioeconomic Support Initiatives

Adolescents from low-income families are particularly vulnerable to stress. Policymakers and NGOs should consider scholarship programs, counseling services, and community-based support to alleviate socioeconomic barriers that affect mental health.

Declarations

Funding: This research received no financial support from public, commercial, or non-profit funding agencies.

Conflicts of Interest: The authors declare no conflicts of interest.

Data Availability: The datasets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Ethics Statement: All procedures involving human participants were reviewed and approved by the Institute of Agricultural Extension, Education, and Rural Development, University of Agriculture, Faisalabad. The study was conducted in accordance with applicable institutional and local ethical guidelines, and written informed consent was obtained from all participants prior to their involvement.

Authors' Contributions: Faisal Nadeem contributed to the conceptualization, methodology, data collection, formal data analysis, Muhammad Farhan Sarwar; original draft preparation, and manuscript review and editing.

Generative AI Statement: The authors confirm that no generative artificial intelligence tools, including DeepSeek, were used in the preparation of this manuscript.

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REFERENCES

Ali, A., & Zubair, A. (2020). Perceived stress, social support, and psychological wellbeing among adolescents: A comparative study of urban and rural areas. *Pakistan Journal of Psychological Research, 35*(1), 55–72.

ISSN: xxxx-xxxx (Print); ISSN: xxxx-xxxx (Online)
Open Access Journal

Anand, U., & Sharma, M. P. (2014). Effectiveness of a Mindfulness-Based Stress Reduction Program on Stress and Wellbeing in Adolescents in a School Setting. *Indian Journal of Positive Psychology*, *5*(1), 17. https://www.myresearchjournals.com/index.php/IJPP/article/view/718

Ansari, S., Khan, I., & Iqbal, N. (2025). Association of stress and emotional wellbeing in non-medical college students: A systematic review and meta-analysis. *Journal of Affective Disorders, 368,* 200–223.

Azad, Y., & Kaur, H. (2024). Academic stress and psychological wellbeing among boys and girls college students. *International Journal of Research and Analytical Reviews, 11*(1), 510–522.

Chung, G. H., & Cheon, Y. M. (2017). *A Daily Diary Study of Adolescents' Academic Stress, Physical and Psychological Wellbeing, and the Moderating Effect of Family Affluence*. *24*(2), 251–276.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*(4), 385–396. https://doi.org/10.2307/2136404

Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., ... & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. *Psychological Bulletin, 143*(9), 939–991. https://doi.org/10.1037/bul0000110

Deb, S., Strodl, E., & Sun, J. (2015). Academic stress, parental pressure, anxiety and mental health among Indian high school students. *International Journal of Psychology and Behavioral Sciences, 5*(1), 26–34. https://doi.org/10.5923/j.ijpbs.20150501.04

Dubow, E. F., Boxer, P., & Huesmann, L. R. (2009). Long-term effects of parents' education on children's educational and occupational success: Mediation by family interactions, child aggression, and teenage aspirations. *Merrill-Palmer Quarterly, 55*(3), 224–249. https://doi.org/10.1353/mpq.0.0030

Haque, M., ul Husnain, M. I., & Sheikh, F. (2020). Academic stress and mental wellbeing in Pakistani adolescents: The role of coping strategies and social support. *Journal of Asian and African Studies, 55*(7), 1059–1075.

Heizomi, H., Allahverdipour, H., Hejazi, S. B., Jafarabadi, M. A., & Shirazi, A. (2018). Factors associating perceived stress and psychological wellbeing among Iranian female adolescents. *International Journal of Depression and Anxiety, 1*(1), 003.

Jahangir, S. F., Aslam, N., & Hussain, M. (2021). Perceived social support and psychological problems in Pakistani adolescents: The mediating role of stress. *Journal of Child and Family Studies, 30*(5), 1254–1265.

Matud, M. P. (2004). Gender differences in stress and coping styles. *Personality and Individual Differences, 37*(7), 1401–1415. https://doi.org/10.1016/j.paid.2004.01.010

Reiss, F. (2013). Socioeconomic inequalities and mental health problems in children and adolescents: A systematic review. *Social Science & Medicine, 90,* 24–31. https://doi.org/10.1016/j.socscimed.2013.04.026

Ryff, C. D. (2014). Psychological wellbeing revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics, 83*(1), 10–28. https://doi.org/10.1159/000353263

Shaheen, M., Schindler, L., Saar-Ashkenazy, R., Saar-Ashkenazy, R., Bani Odeh, K., Soreq, H., Friedman, A., Friedman, A., & Kirschbaum, C. (2020). Victims of war-Psychoendocrine evidence for the impact of traumatic stress on psychological wellbeing of adolescents growing up during the Israeli-Palestinian conflict. *Psychophysiology*, *57*(1). https://doi.org/10.1111/PS YP.13271

Steinberg, L. (2014). *Age of opportunity: Lessons from the new science of adolescence*. Houghton Mifflin Harcourt.

World Health Organization. (2025). *Adolescent mental health*. https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health

Wu, Y. (2024). Analysis of the Impact of Multidimensional Stressors on Adolescent Mental Health. *Lecture Notes in Education Psychology and Public Media*, *75*(1), 163–168. https://doi.org/10.54254/2753-7048/2024.17951