

## International Journal of Agriculture Extension and Social Development

Volume 8; Issue 8; August 2025; Page No. 365-368

Received: 09-05-2025

Accepted: 11-06-2025

Indexed Journal

Peer Reviewed Journal

### A study on the relationship between stress and psychological well-being of adolescents

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DOI: <https://www.doi.org/10.33545/26180723.2025.v8.i8f.2289>

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#### Abstract

The study aimed to assess the relationship between stress and psychological well-being among adolescents. A total of 240 adolescents (120 girls and 120 boys) in the age group of 16-18 years from 12 private intermediate colleges located under six zones in Hyderabad city of Telangana state were selected as sample through a purposive random sampling method. The data was collected by using a self-developed questionnaire on stress and a psychological well-being scale by Carol D. Ryff (1989). An ex-post facto research design was adopted for the study. The questionnaire on stress assesses the adolescent's level of stress from family, personal, academic and social settings. The psychological well-being scale assesses the autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance. The SPSS 16.0 package program was used to analyze the data. After conducting a correlational analysis using Karl Pearson's product-moment correlation between stress and psychological well-being, a significant and strong negative ( $r = -0.914^{**}$ ) correlation was observed, which was found to be significant at 0.01 level of probability. It means that as the stress level increased, the psychological well-being among adolescents decreased. This implies that the teenagers who were under stress from their parents, personal issues, academic work and peer connections, were more likely to have lower mental wellness. Surprisingly, our findings support that, the stress leads to reduced psychological well-being among adolescents and it is consistent with our findings across research.

**Keywords:** Stress, psychological well-being, adolescents and teenagers

#### Introduction

Adolescence is a transformative and sensitive developmental period characterized by rapid biological, emotional and social changes. As adolescents navigate the transition from dependence to independence, they encounter multiple internal and external stressors that challenge their psychological strength and overall well-being (WHO, 2021) <sup>[19]</sup>. Research consistently indicates that this age group is particularly vulnerable to emotional disruptions and mental health challenges, largely due to their developing cognitive capacities and heightened emotional sensitivity (Aggarwal *et al.* 2024) <sup>[2]</sup>.

Stress is a cognitive and physiological response to demands that exceed a person's adaptive capacity has become increasingly prevalent among adolescents. Sources of adolescent stress include academic pressure, family conflict, peer relationships, body image concerns and uncertainty about the future. A large-scale Indian study revealed that over 30% of adolescents experienced severe levels of stress, primarily from parents, academic and social expectations. Stress can significantly impact adolescents' ability to function effectively in their daily lives, interfering with

concentration, sleep, decision-making and self-esteem (Azad and Kaur, 2023) <sup>[5]</sup>. At the same time, psychological well-being has emerged as a key construct in the field of adolescent health.

Psychological well-being is not simply the absence of mental illness, but the presence of positive functioning in multiple dimensions such as inner control, competence in everyday life, self-development, social bonding, living with ambition and being comfortable with oneself (Ryff, 1989) <sup>[15]</sup>. A study conducted by Heizomi *et al.* (2018) <sup>[9]</sup> reported that adolescents with high psychological well-being tend to be more resilient, emotionally balanced, socially connected and optimistic about the future. The majority (74.3%) of the adolescents had high stress levels and reported that most (64.7%) of them were vulnerable to mental health problems and the psychological well-being was negatively associated with stress.

Adolescents today face not only traditional stressors but also the added weight of modern pressures such as social advancements and high achievements. A recent meta-analysis of 46 international studies revealed a significant negative association between stress and mental well-being

(Ansari *et al.* 2025) <sup>[4]</sup>. These findings reinforce that high stress often erodes vital aspects of psychological well-being, like emotional stability, self-perception and social competence.

These insights underscore that adolescence is a period marked by psychological vulnerability, which significantly impairs mental well-being (Scafuto *et al.* 2025) <sup>[16]</sup>. The adolescent phase is highly susceptible to stress-related challenges that can hinder psychological well-being. Persistent stress not only disrupts emotional and cognitive functioning but also weakens self-acceptance and social bonds. Research has shown that stress can lead to reduced psychological well-being and mental health in the adolescent age group.

### Review of literature

Murray *et al.* (2015) <sup>[14]</sup> conducted a study on 515 adolescents and revealed that adolescents experience significant personal stress largely due to body image concerns and both boys and girls reported feeling greater pressure about their appearance. The study found a strong link between body dissatisfaction, low self-esteem and stress in adolescents.

Florencio *et al.* (2017) <sup>[8]</sup> conducted a study on adolescent perception of stress and the study revealed that the majority (57%) of adolescents perceived negative family interactions as major stressors. The participants revealed that feelings of neglect, conflict and lack of parental support contribute to emotional distress.

Windarwati *et al.* (2020) <sup>[18]</sup> revealed that adolescents experiencing high stress levels came from unharmonious families. It reinforces the notion that family plays a protective role in mitigating stress among adolescents.

Hosseinkhani *et al.* (2020) <sup>[10]</sup> conducted a study on 1724 adolescents about their academic stress and mental health. The study findings revealed that academic stress significantly affects adolescents' mental health, with stress from families having the strongest impact. It highlights that family pressure is the most influential source of academic stress.

Malik *et al.* (2020) <sup>[13]</sup> investigated the relationship between stress and psychological well-being among adolescents and revealed that there was a significant negative correlation between stress and psychological well-being, reporting lower mental health and increased anxiety.

Erath *et al.* (2021) <sup>[7]</sup> studied about the stress in adolescence

and the findings of the study reported that there was a high social stress among adolescents, especially from parents, peers and romantic relationships but their coping abilities were under strain and challenging.

Zaheer and Khan (2022) <sup>[20]</sup> studied the role of stress and psychological well-being among 530 adolescents and the study found that stress has a negative relationship with psychological well-being and aspects of psychological well-being like environmental mastery and self-acceptance.

Al-Amer *et al.* (2024) <sup>[3]</sup> pointed out the prevalence of stress among adolescents and reported that two-thirds are affected. The majority (43%) of the adolescents had severe stress, followed by moderate stress (22.8%) and extremely severe stress (16.8%), indicating that most of the adolescents (82.6%) were significantly affected.

### Materials and Methods

#### Location of the study

The present study was aimed to study the relationship between stress and psychological well-being among adolescents. The study was carried out in Hyderabad city of Telangana state because the city's ethnography has a diverse demographic population from various parts of Telangana state. The city was divided into six zones and 12 private colleges were randomly selected from these zones.

#### Sample size

A total of 240 adolescents, comprising 120 boys and 120 girls, were selected as a sample for the study.

#### Tools used for the study

A questionnaire for stress was developed with four dimensions and 44 items, the dimensions were family stress, personal stress, academic stress and social stress. Psychological Well-Being scale, under 6 components and 42 statements, such as autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance was used.

#### Statistical Analysis

The SPSS 16.0 package program was used to analyze the data. Karl Pearson's product-moment correlation was used to measure the relationship.

### Results and Discussion

**Table 1:** Relationship between stress and psychological well-being

| S. No | Variables             | Autonomy | Environmental Mastery | Personal Growth | Positive Relations | Purpose in Life | Self-Acceptance | Psychological well-being |
|-------|-----------------------|----------|-----------------------|-----------------|--------------------|-----------------|-----------------|--------------------------|
| 1.    | Family stress         | -0.840** | -0.673**              | -0.653**        | -0.361**           | -0.347**        | -0.370**        | -0.887**                 |
| 2.    | Personal stress       | -0.609** | -0.488**              | -0.652**        | -0.459**           | -0.448**        | -0.449**        | -0.783**                 |
| 3.    | Academic stress       | -0.595** | -0.477**              | -0.515**        | -0.407**           | -0.426**        | -0.341**        | -0.790**                 |
| 4.    | Social stress         | -0.395** | -0.268**              | -0.419**        | -0.302**           | -0.325**        | -0.326**        | -0.720**                 |
| 5.    | Overall stress levels | -0.635** | -0.507**              | -0.686**        | -0.580**           | -0.594**        | -0.573**        | -0.914**                 |

**Note:** \*\*Correlation is significant at the 0.01 level (2-tailed).

Table 1 depicts the relationship between the components of stress and the dimensions of psychological well-being of adolescents. It was observed that stress and its components, including family stress, personal stress, academic stress, social stress and overall stress, had a statistically significant

negative relationship with psychological well-being and all its dimensions, such as autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance. Here, the interpretation is described for the relationship between the components of stress and the

psychological well-being to avoid repetition and to explain the association in a broader context.

### **Relationship between family stress and psychological well-being**

The dimension “family stress” exhibited a highly significant negative relationship with overall psychological well-being among adolescents ( $r = -0.887^{**}$ ) at the 0.01 level of probability. This strong inverse relationship indicates that higher levels of family stress was associated with lower psychological well-being in the adolescents. Specifically, the familial distress, such as conflict, instability and lack of emotional support, was linked to a decline in adolescents’ mental health and emotional well-being.

These findings are aligned closely with the study conducted by Abidin *et al.* (2022) <sup>[1]</sup>, which described that adolescents exposed to family-related stressors, such as misunderstandings, chaotic home environments and controlling parenting, experienced a notable decline in emotional well-being. The study further suggested that fostering warmth and adopting an authoritative parenting style can support adolescents’ mental health by addressing their emotional needs.

### **Relationship between personal stress and psychological well-being**

The analysis of the “personal stress” revealed a significant negative relationship with the overall psychological well-being among adolescents ( $r = -0.783^{**}$ ) at the 0.01 level of probability. This indicated that as personal stress increased, adolescents’ psychological well-being decreased. The adolescents experiencing high levels of internal stress, such as emotional distress, identity struggles, and self-esteem issues were more likely to suffer from anxiety, low mood, and an increased risk of depression and mental health concerns.

These findings are supported by a study conducted by Lindholdt *et al.* (2023) <sup>[12]</sup> found that personal stress in adolescents was associated with reduced emotional and mental health, making them more vulnerable to clinically diagnosed psychiatric conditions and mental disorders.

### **Relationship between academic stress and psychological well-being**

The dimension “academic stress” displayed a significant negative relationship ( $r = -0.790^{**}$ ) with the overall psychological well-being of the respondents at 0.01 level of probability. This indicated that as academic stress increased, there was a corresponding decrease in overall psychological well-being. It means that adolescents with high academic demands and performance pressure had undermined emotional stability, increased frustration, reduced confidence and satisfaction.

The present findings were on par with a study conducted by Kristensen *et al.* (2023) <sup>[11]</sup>, who found that elevated academic stress was more strongly related to psychological distress. Teenagers felt higher stress from academics in terms of exam anxiety, burnout and dissatisfaction.

### **Relationship between social stress and psychological well-being**

The aspect of “social stress”, was found to be significantly

and negatively related ( $r = -0.720^{**}$ ) to the overall psychological well-being of adolescents at 0.01 level of probability. This finding suggested that an increase in social stress was associated with decreased psychological well-being among adolescents. The negative relationship implies that adolescents experiencing higher levels of negative social interactions, such as peer pressure, bullying, exclusion or poor peer relationships, were more likely to face social difficulties, which in turn affected their emotional and psychological well-being.

The findings were supported by a study conducted by Stea *et al.* (2024) <sup>[17]</sup>, who revealed that social pressure was associated with depressive symptoms among male and female adolescents. The adolescents with high social pressure had experienced suicidal thoughts and a tendency to self-harm, which were the result of lower psychological well-being.

### **Relationship between overall stress and psychological well-being**

The correlational analysis revealed that overall stress had a strong and significant negative relationship with overall psychological well-being among adolescents ( $r = -0.914^{**}$ ) at the 0.01 level of probability. This strong negative correlation indicates that higher levels of overall stress, comprising family stress, personal stress, academic stress, and social stress were significantly associated with lower psychological well-being among adolescents. The accumulation of stress across these multiple life domains appeared to undermine adolescents’ emotional balance, self-esteem and overall mental health, thereby reducing the ability to maintain positive functioning and life satisfaction. The findings were consistent with a study conducted by Carvalho *et al.* (2024) <sup>[6]</sup> identified teens with higher overall stress reported lower levels of positive indicators like confidence, connections and satisfaction but had higher levels of negative mental health aspects like low mood and regressive thoughts. This study confirmed that an increase in overall stress is linked to a notable decline in psychological well-being.

### **Conclusion**

The study can be concluded that stress had a significant negative relationship with psychological well-being among adolescents. This suggests that adolescents who had higher stress were vulnerable to mental health problems like emotional imbalance, anxiety and depression. This imbalance not only affects daily functioning but also increases mental illness. Therefore, addressing adolescent stress through preventive mental health strategies is essential. Enhancing well-being must be a priority in both educational and familial settings to foster healthier developmental outcomes.

### **Future scope**

This study highlights how critical it is for parents, educators and policy makers to be aware of major stress factors and associated psychological concerns in teenagers. Expanding research across diverse geographic, socio-economic and cultural contexts will further enrich understanding and support the development of targeted, evidence-based strategies for adolescents’ mental health promotion.

### Acknowledgement

The authors thank the Honourable Vice Chancellor of Professor Jayashankar Telangana Agricultural University, Rajendranagar, for his encouragement.

### Conflict of Interest

None.

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