

Gratitude Relation to Perceived Stress and Well-Being among Higher Secondary Students

Lalrinawmi Rawite*

Zokaitluangi**

*Research scholar, Department of Psychology, Mizoram University

**Professor, Department of Psychology, Mizoram University

Abstract

Globally, youth mental health is deteriorating due to broad societal changes and megatrends (The Lancet Psychiatry Commission, 2024). The study aimed to investigate the role of gratitude on perceived stress and well-being by comparing the two levels of gratitude (high and low) and two genders (male and female) of higher secondary school students of Aizawl city. The study employs correlational design. Participants of the study were drawn by simple random sampling. GQ-6 (McCullough et al., 2002), the Perceived stress scale (Cohen et al., 1983) and WHO-5 (WHO, 2024) were employed for psychological evaluation. All the precaution for maintaining ethical principle of research were strictly followed. The findings portrayed the role of gratitude along with gender difference on perceived stress and well-being, and gratitude had positive relation with well-being but negative relation to perceived stress, and perceived stress and well-being were negatively related. The study implies the need of school-based interventions where gratitude practice could serve as an instrument to lower students stress and enhance their well-being

Keywords: *perceived stress, gratitude, well-being.*

Introduction

The word grateful originated in the sixteenth century (Ayto, 1990). Gratitude derives from Latin “gratus” meaning thankful. Rashid and Seligman (2018) defined gratitude as thankfulness that involves appreciating positive moments in everyday life. McCullough et al. (2002) describe gratitude disposition as the tendency to acknowledge others’ benevolent actions contributing to positive experiences. They note that grateful individuals are less likely to take positive events for granted, helping maintain well-being during challenges. Gratitude broadens positive emotions and builds personal resources valuable in crises (McCullough et al., 2002).

Cohen et al. (1983) defined perceived stress as an individual’s assessment or appraisal of how much the demands in their life surpass their capacity to cope. This concept captures a subjective

experience of stress encompassing feelings of unpredictability, uncontrollability, and overload in one's life circumstances. Rather than focusing on objective stressors, perceived stress emphasizes how people interpret and respond to stress based on their coping resources.

Well-being represents a favorable state for individuals and societies, serving as a resource for daily life shaped by social, economic, and environmental factors. It encompasses quality of life and the ability to contribute meaningfully to the world, helping monitor resource distribution and sustainability (World Health Organization, 2021). Well-being reflects how individuals feel and function personally and socially, and how they evaluate their lives (Michaelson et al., 2012).

Higher Secondary School students, typically aged 16-18 years, are in Class 11 or 12 of pre-university education (Ministry of Human Resource Development & UIS, 2014). According to WHO (n.d.), adolescence (ages 10-19) is crucial for establishing good health foundations. This phase involves physical, cognitive, and social changes, with mood fluctuations that can increase vulnerability to psychological distress (Lahey et al. 2017).

Review of literature

Gratitude, Perceived stress and Well-being among higher secondary school students

Anand et al. (2021) found a significant relationship between gratitude and quality of life among adolescents aged 16-18 years, with mindfulness as a potential mediator.

Keerthi and colleagues (2024) found significant stress in 34.1% of South Kerala higher secondary students, with 8.7% reporting severe perceived stress, suggesting stress reduction as a priority.

Borah and Nisanth PM (2024) studied psychological well-being of secondary students regarding gender and locality. Among 215 participants, most reported average psychological well-being, with gender differences noted.

Relationship between dependent variables

Engaging high school students in gratitude practices significantly improves their mental health (Bono et al. (2023). Hussain and Chandel (2023) reported a significant negative relationship between gratitude and stress among youth. Chauhan et al. (2025) found gratitude positively correlates with life satisfaction. Thorsén et al. (2022) found associations between perceived stress and psychiatric symptoms in adolescents, with higher rates in girls. Aggarwal et al. (2024) found no gender differences in psychological well-being and stress levels, indicating complex relationships between stress and psychological well-being in students.

High and low gratitude difference on perceived stress and well-being

Studies show adolescents with higher gratitude experience lower stress, helping them better interpret challenges and maintain well-being (Li, Yang, & Liu, 2023). Rey et al. (2019) found gratitude negatively correlated with bullying victimization and suicide risk. While gratitude levels were similar across genders, girls with higher gratitude showed lower suicide risk when bullied.

Gender difference

Kumari and Parshwal (2025) studied gratitude's effect on well-being in 107 adolescents aged 11-18 years, finding a weak relationship but no gender differences. Similarly, Palani and Jayasurya (2023) found no gender differences in gratitude, optimism and personal growth among adolescents and young adults.

A study conducted by Varsha and Jain (2023) reveals that there is no significant gender difference on perceived stress among adolescents while other study reports higher perceived stress in girls (Garg, 2023).

Campbell et al. (2021) found no notable gender disparities in adolescent mental health across cultures. Majumdar and Srivastava (2023) explored the gender difference in mental health among late adolescents' results reveal females exhibiting poorer emotional, social and psychological well-being and overall poorer mental health.

Gratitude and gender interaction effect

- **Gratitude and gender difference on perceived stress and well-being**

Kumar et al. (2019) conducted a study in India exploring the moderating roles of gender and religiosity on the relationship between gratitude and perceived stress. The study found a significant negative relationship between gratitude and stress, with gender significantly moderating this relationship, with stronger negative association with perceived stress among females.

Kashdan et al. (2009) found gender differences in gratitude. Women reported higher trait gratitude, experienced stronger genuine gratitude and better fulfilled psychological needs like belongingness. Men were more critical of gratitude, less willing to express it, and gained fewer benefits. This shows gender roles influence how gratitude affects well-being, with females gaining more benefits.

Statement of the Problem

During adolescence health attitudes and behaviours are formed and influence all aspects of an individual's health throughout their life course (Henriksson et al. 2017).

Despite the growing literature of negative impacts of stress on well-being of adolescents, protective factors that may act as a buffer against stress is much less investigated. Although previous researches have established the association between these variables, the role of gratitude requires

further exploration, particularly among school going higher secondary students in this particular culture. In light of this, the current study was conducted with the following objectives:

Objectives

Based on the available literature the following objectives will be attempted in the study.

- 1) To investigate any difference between male students and female students' difference on perceived stress and well-being among higher secondary school students.
- 2) To investigate any difference between High and low practicer of gratitude on perceived stress and well-being among higher secondary school students.
- 3) To examine the relationship between gratitude practice, perceived stress and well-being among samples.

Hypotheses

The following hypotheses were framed based on the objectives of the study

- 1) Male students were expected to have a lower perceived stress but higher well-being than female students among higher secondary school students.
- 2) The high level of gratitude practicers will have a lower perceived stress but higher well-being than low level of gratitude practicers among higher secondary school students.
- 3) Gratitude practice will have a positive relation with well-being but negative relation with perceived stress.

Methodology:

Sample

The study participants were randomly selected from higher secondary schools in Aizawl using a list from the Department of School Education, Mizoram. The sample comprised 326 participants (N=326), with equal gender distribution (males, n=150; females, n=176), aged 15-18 years. Sociodemographic variables were equally distributed to minimize extraneous effects.

Tool used

- 1) *Demographic Information Form (Rawite, 2025)*: It was constructed by the researcher to collect certain demographic variables such as age, gender, family type, religion etc.
- 2) *Informed Consent Form (Rawite, 2025)*: This was designed to ensure ethical compliance including inform the purpose of the study, voluntary participation, confidentiality etc for ensuring their willingness to participate.
- 3) *Gratitude Questionnaire-6 (GQ-6; McCullough, M. E., Emmons, R. A., & Tsang, J., 2002)*: GQ-6 is a six-item self-report tool measuring dispositional gratitude in everyday situations.

The total score is calculated by summing all items, with higher scores indicating greater gratitude.

- 4) *Perceived Stress Scale (PSS-4; Cohen, S., Kamarck, T., & Mermelstein, R., 1983)*: The PSS-4 assesses perceived stress and views of life events as uncontrollable over the past month with 4 points scale. The total score indicates stress level, with higher scores showing greater perceived stress.
- 5) *World Health Organization – Five Well-Being Index (WHO-5; World Health Organization, 2024)*: This self-report tool evaluates mental well-being through five statements about emotions, energy, and life interest over two weeks and measure with 5 point scale, with higher scores indicating better well-being. Scores below 13 show poor well-being.

Design

The study utilizes a Correlational design to determine the relation between gratitude, perceived stress and well-being between male and female among higher secondary school students. The study also compares the two levels of gratitude (low and high) on perceived stress and well-being. Furthermore, the study also investigated gender difference on the studied variables.

Procedure

The researcher developed informed consent and demographic forms and verified their applicability to the targeted population through pilot study. The samples were randomly selected from Higher secondary schools located in Aizawl. Necessary permissions and informed consent were taken from school authorities and participants. Administration of psychological scales were done by following manuals and APA code of ethics. Completed questionnaires were collected after response verification.

Results and discussion

After checking missing responses and outliers, psychometric properties of the scales were verified as they were constructed for another culture. The scales' normality, reliability and homogeneity were suitable for the target population (Table 1). With parametric assumptions met, Independent t-tests compared gratitude levels on perceived stress and well-being, gender effects, and Pearson r correlation examined variable relationships.

Objective -1: To investigate any difference between male students and female students' difference on perceived stress and well-being among higher secondary school students

The normality, reliability and homogeneity of the sample was checked. Independent t-test was employed to see the gender difference on the studied sample.

Table 1

Showing the normality, reliability, homogeneity for scales; independent t-test between male and female students on the Gratitude, Perceived Stress, and wellbeing.

Group	Statistics	Perceived Stress	Wellbeing
Male Students	Mean	9.45	19.32
	SD	2.56	4.16
	Kurtosis	0.76	0.88
	Skewness	0.82	0.78
Female Students	Mean	12.98	15.21
	SD	3.01	3.84
	Kurtosis	0.71	0.86
	Skewness	0.82	0.77
Total Samples Students	Mean	11.22	17.27
	SD	2.79	4.00
	Kurtosis	0.74	0.87
	Skewness	0.82	0.78
Reliability (α)		0.90	0.88
Homogeneity (Levene test)		0.21	0.19
Independent t-test between male and female students		2.32**	2.97**

**= significant at .01 levels

The Mean, SD, Kurtosis and Skewness showed the normality of the variances across males, females, and the total sample. Reliability indices (Cronbach's Alpha) fell between 0.88 and 0.90 which reveals that the behavioural measures of perceived stress and well-being were appropriate for the target population. The Levene's statistics shows the homogeneity of the variance and appropriateness for the use of parametric statistic for further analysis. The mean score of the total sample was found to be 11.22 for perceived stress and mean score of 17.27 on well-being.

Male students reported lower perceived stress (M=9.45, SD=2.56) and higher well-being (M=19.32, SD=4.16) compared to female students as they show higher perceived stress (M=12.98, SD=3.84) and lower well-being (M=15.21, SD=3.84). The difference between male and female students were statistically significant for both perceived stress (t=2.32, p<.01) and well-being (t=2.97, p<.01). These results suggest that gender play a significant role as, with females reporting higher stress and lower well-being compared to their male counterparts. Therefore, Hypothesis 2 can be accepted.

Previous studies on perceived stress also observed that females reported experiencing higher level of stress than males (Rodriguez-Rivas et al., 2023). Studies across different cultures highlights

gender gap in mental health in adolescence with girls tend to have poorer mental health compared to boys (Cambell et al., 2021).

Objective -2: To investigate any difference between High and low practicer of gratitude on perceived stress and well-being among higher secondary school students

Table 2
Showing the Mean, SD, Kurtosis, Skewness, Reliability and Independent t-test (between high and low practicers of gratitude students) on the Perceived Stress, and wellbeing.

Group	Statistics	Perceived Stress	Wellbeing
Higher gratitude practicers	Mean	8.72	19.23
	SD	2.34	3.89
	Kurtosis	0.79	0.85
	Skewness	0.83	0.82
Low gratitude practicers	Mean	13.72	15.01
	SD	3.23	3.57
	Kurtosis	0.73	0.83
	Skewness	0.82	0.69
Total Samples	Mean	11.22	17.27
	SD	2.79	4.00
	Kurtosis	0.74	0.87
	Skewness	0.83	0.78
Independent t-test between high and low practicers		2.45**	3.13**

** = significant at .01

Table 2 shows the descriptive statistics on perceived stress and well-being for higher and low gratitude practicers along with the Skewness and Kurtosis statistics. The skewness and kurtosis values indicate that the distribution of perceived stress and well-being in both groups approximates normality. The total sample mean on perceived stress and well-being (M=11.22; 17.27, SD= 2.79; 4.00). The skewness and kurtosis of the total sample show a normal distribution.

Results of Independent t-test revealed a significant difference between higher and low level of gratitude practicers on perceived stress and well-being, with higher level of gratitude practicers reporting lower level of perceived stress than low level of gratitude practicers (M=8.72, 13.72; t= 2.45; p<.01). Higher level of gratitude practicers scored higher than low level of gratitude practicers on well-being (M=19.23, 15.01; t= 3.13; p<.01). Thus, Hypothesis 1 is accepted.

The results reveal that higher level of gratitude practice experience lower perceived stress as compared to low level of gratitude practice. Gavian et al. (2011) found that students with higher gratitude levels experience less stress, anxiety, and depression, as gratitude helps reframe stressful situations positively. According to Li et al. (2023), adolescents who exhibit higher levels of trait gratitude tend to experience greater subjective well-being. Senger & Gallagher (2023) found gratitude being a more significant predictor in reducing psychological distress and enhancing well-being than hope.

Objective- 3: To examine the relationship between gratitude practice, perceived stress and well-being among samples.

Pearson correlation coefficient was computed to assess the relationship between gratitude practice, perceived stress and well-being among the sample and presented in Table 3.

Table 3

Showing significant relationship between level of Gratitude practice, Perceived Stress, and wellbeing for the whole samples.

Dependent Variables	Gratitude practice	Perceived Stress	Well-being
Gratitude practice	1	-0.35**	0.29**
Perceived Stress		1	-0.31**
Well-being			1

** = significant at .01

The correlation between the studied variables were estimated using the Pearson correlation coefficient. The results reveal a significant negative relationship between gratitude practice and perceived stress ($r = -0.35$, $p < .01$), a significant positive relationship between gratitude practice and well-being ($r = 0.29$, $p < .01$), and a significant negative relationship between perceived stress and well-being. Therefore, Hypothesis 3 was accepted.

The present study found a significant negative relationship between gratitude practice and perceived stress. This result is consistent with the findings of previous studies that perceived stress is negatively associated with both gratitude and well-being (Lee et al., 2018; Yildirim and Alanazi, 2018).

The present study finding of significant positive relationship between gratitude practice and well-being is in line with other researches. Manalo et al. (2024) reports gratitude predicts 41% of adolescents' well-being. Wolanin and Rybak (2022) investigation of gratitude relationship with quality of life reports a significant positive association between the variables.

The study's finding that perceived stress is significantly negatively associated with well-being is supported by the findings of Kumar et al., (2020), a study on perceived stress and psychological well-being among adolescents reports significant negative relationship. Slimmen et al. (2022) reports a negative association between perceived stress and mental well-being.

Conclusion and Implication

The study shows gratitude practice significantly reduces perceived stress and enhances well-being among secondary school students. Higher gratitude practitioners experience lower stress and higher well-being than low gratitude practitioners. Gender differences were found, with female students showing higher stress and lower well-being than males. The negative correlation between gratitude and stress, and positive correlation with well-being, demonstrates gratitude's protective effects on mental health. These findings suggest incorporating gratitude into school mental health programs and developing gender-sensitive interventions.

Limitations of the study

The sample size of the study was relatively small; thus, limiting generalizability. The study is limited to correlational study and does not explain any cause and effect of the variables. The study did not account for the type of educational institution (government or private) which could potentially influence the variables under study. Future studies can include larger sample size and include intervention base study to better understand the interconnection upon these variables.

Conflict of Interest

No conflict of interests between the author

Declaration

The research original and exact of the pilot study of the Ph D research, and not been published or submitted for publication elsewhere.

References

- Aggarwal, A., Bakht, F., & Malhotra, S. (2024). A study of relationship between psychological well-being and perceived stress among secondary stage students of Mohali, Punjab. *International Journal of Indian Psychology, 12*(4), 224–238.
- Anand, P., Bakhshi, A., Gupta, R., & Bali, M. (2021). Gratitude and quality of life among adolescents: The mediating role of mindfulness. *Trends in Psychology, 29*(4), 706–718.
- Ayto, J. (1990). *Dictionary of word origins*. Arcade. Library of Congress PE1580 .A97 1991.

- Bono, G., Duffy, T., & Merz, E. L. (2023). Gratitude and Adolescents' Mental Health and Well-Being: Effects and Gender Differences for a Positive Social Media Intervention in High Schools. *Education Sciences, 13*(3), 320.
- Borah, P., & Nisanth, P. M. (2024). A study on psychological well-being of secondary students in relation to gender and locality. *International Journal of Scientific Research in Modern Science and Technology, 3*(4), 11–19.
- Campbell, O. L. K., Bann, D., & Patalay, P. (2021). The gender gap in adolescent mental health: A cross-national investigation of 566,829 adolescents across 73 countries. *SSM - Population Health, 13*, 100742.
- Campbell, O. L. K., Bann, D., & Patalay, P. (2021). The gender gap in adolescent mental health: A cross-national investigation of 566,829 adolescents across 73 countries. *SSM - Population Health, 13*.
- Chauhan, A. S., Mathur, G., Gulati, C., & Sharma, A. (2025). The relationship between gratitude and life satisfaction: The mediating effect of mental well-being. *Social Sciences & Humanities Open, 11*, 101224.
- Cohen, S., Kamarck, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*(4), 385-396.
- Garg, N. (2023). Exploring the gender difference in stress perception and temperament amongst adolescents belonging to lower socio-economic background. *International Journal of Indian Psychology, 11*(3), 2599–2614.
- Gavian, M. E. (2011). *The effects of relaxation and gratitude interventions on stress outcomes* [Doctoral dissertation, University of Minnesota]. University Digital Conservancy. <https://hdl.handle.net/11299/117368>
- Harrison, J.E., Weber, S., Jakob, R., & Chute, C.G. (2021). ICD-11: an international classification of diseases for the twenty-first century. *BMC Med Inform Decis Mak. 2021 Nov 9;21*(Suppl 6):206.
- Henriksson, P., Henriksson, H., Gracia-Marco, L., Labayen, I., Ortega, F. B., Huybrechts, I., España-Romero, V., Manios, Y., Widhalm, K., Dallongeville, J., González-Gross, M., Marcos, A., Moreno, L. A., Castillo, M. J., Ruiz, J. R., & HELENA study group. (2017). Prevalence of ideal cardiovascular health in European adolescents: The HELENA study. *International Journal of Cardiology, 240*, 428–432.
- Hussain, S., & Chandel, P. (2023). Correlation between gratitude and stress among youth. *South India Journal of Social Sciences, 30*(7), 213–220.
- Kashdan, T. B., Mishra, A., Breen, W. E., & Froh, J. J. (2009). Gender differences in gratitude: examining appraisals, narratives, the willingness to express emotions, and changes in psychological needs. *Journal of personality, 77*(3), 691–730.
- Keerthi, R., Krishnan, S., & Lallchand, A. (2024). Prevalence of perceived stress among higher secondary school students in an educational district of South Kerala. *Kerala Journal of Psychiatry, 37*(1), 1-12.
- Kumar, P., Verma, H., & Dube, P. (2019). Moderating role of the gender and religiosity on the relationship between gratitude and stress. *International Journal of Innovative Technology and Exploring Engineering, 8*(9), 1670-1676.
- Kumar, S. K., Mandal, S. P., & Bharti, D. A. (2020). Perceived stress and psychological well-being: A moderating role of proactive coping. *Journal of the Indian Academy of Applied Psychology, 46*(2), 200-209.

- Kumari, S., & Parshwal, M. (2025). A study of gratitude and its effects on well-being in adolescence. *International Journal of Applied Social Science*, 12(5–6), 379–382. <https://doi.org/doi/10.2025-68249361/IJASS/12.5&6/379-382>
- Lahey, B. B., Krueger, R. F., Rathouz, P. J., Waldman, I. D., & Zald, D. H. (2017). Validity and utility of the general factor of psychopathology. *World Psychiatry: Official Journal of the World Psychiatric Association (WPA)*, 16(2), 142–144.
- Lee, J.-Y., Kim, S.-Y., Bae, K.-Y., Kim, J.-M., Shin, I.-S., Yoon, J.-S., & Kim, S.-W. (2018). The association of gratitude with perceived stress and burnout among male firefighters in Korea. *Personality and Individual Differences*, 123, 205–208.
- Li, Y., Liu, S., Li, D., & Yin, H. (2023). How trait gratitude influences adolescent subjective well-being? Parallel-serial mediating effects of meaning in life and self control. *Behavioral Sciences (Basel, Switzerland)*, 13(11), 902.
- Majumdar, I. G., & Srivastava, M. (2023). Exploring gender differences in mental health: A preliminary investigation on late adolescents. *International Journal of Indian Psychology*, 11(2), 071–084.
- Manalo, M.A., Molina, C., Vergara, J. (2024). Gratitude as predictor of psychological well-being among secondary students. *Journal of Interdisciplinary Perspectives*, 2(12), 391-399.
- McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). The grateful disposition: a conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82(1), 112–127.
- Michaelson, J., Mahony, S., & Schifferes, J. (2012). *Measuring wellbeing: A guide for practitioners*. New Economics Foundation.
- Ministry of Human Resource Development & UIS. (2014). *Indian Standard Classification of education*. https://www.education.gov.in/sites/upload_files/mhrd/files.
- Palani, B.T. & Jayasurya, K. (2023). Study on relationship between gratitude, optimism and personal growth initiative among adolescents and young adults. *International Journal of Indian Psychology*, 11(4), 1578-1587.
- Rashid, T., & Seligman, M. P. (2018). *Positive Psychotherapy: Clinician Manual*. Oxford University Press.
- Rey, L., Quintana-Orts, C., Mérida-López, S., & Extremera, N. (2019). Being bullied at school: Gratitude as potential protective factor for suicide risk in adolescents. *Frontiers in Psychology*, 10, 662.
- Rodríguez-Rivas, M. E., Alfaro, J., Benavente, M., Varela, J. J., Melipillán, R., & Reyes, F. (2025). Corrigendum to “The negative association of perceived stress with adolescents’ life satisfaction during the pandemic period: The moderating role of school community support”. *Heliyon*, 11(9), e43242.
- Senger, A. R., & Gallagher, M. W. (2024). The unique effects of hope and gratitude on psychological distress and well-being in trauma-exposed Hispanic/Latino adults. *Psychological Trauma: Theory, Research, Practice, and Policy*, 16(3), 488–495.
- Slimmen, S., Timmermans, O., Mikolajczak-Degrauwe, K., & Oenema, A. (2022). How stress-related factors affect mental wellbeing of university students A cross-sectional study to explore the associations between stressors, perceived stress, and mental wellbeing. *PLOS ONE* 17(11): e0275925.
- Thorsén, F., Antonson, C., Palmér, K., Berg, R., Sundquist, J., & Sundquist, K. (2022). Associations between perceived stress and health outcomes in adolescents. *Child and Adolescent Psychiatry and Mental Health*, 16(1).

Varsha, J. & Jain, V. (2023). Perceived Stress in Adolescents Across Gender. *International Journal of Indian Psychology, 11*(2), 1657-1661.

Wolanin, A., & Rybak, J. (2022). Gratitude and quality of life in a personalist and existential approach. *Annales Universitatis Mariae Curie-Sklodowska. Sectio J, Paedagogia-Psychologia, 35*(3), 77–96.

World Health Organization. (n.d.). *Adolescent health*. https://www.who.int/health-topics/adolescent-health#tab=tab_1