

A Study of Relationship Between Self-Esteem and Optimism in Secondary School Teachers of Lahore

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Abstract

This study examined the relationship between self-esteem and optimism among secondary school teachers in Lahore, Pakistan. Using a correlational research design, a multistage random sample of 500 teachers (250 male, 250 female) from private secondary schools completed the Rosenberg Self-Esteem Scale (RSES) and the Life Orientation Test-Revised (LOT-R) to measure self-esteem and optimism. Data were analyzed using Pearson product-moment correlation and independent-sample t-tests. Results revealed a moderate positive relationship between self-esteem and optimism ($r = .592, p < .01$). No significant gender differences were found in self-esteem or optimism. Findings suggest that teachers with higher self-esteem tend to report greater optimism, highlighting the potential value of teacher well-being interventions. Future research could explore how optimism and self-esteem influence job satisfaction, stress, and professional commitment.

Keywords: Self-esteem, optimism, teacher well-being, psychological strengths, secondary education, secondary school teachers

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Introduction

Teachers are central to educational success, influencing both student learning and overall school climate. Psychological strengths such as self-esteem and optimism significantly impact teachers' well-being, resilience, and professional effectiveness (Carver & Scheier, 2014). In Lahore, secondary school teachers face multiple challenges, including high workloads, limited resources, and socio-cultural pressures, making it essential to examine their psychological resources.

Self-esteem reflects individuals' self-worth and self-acceptance (Rosenberg, 1965). Optimism represents a dispositional tendency to expect positive outcomes (Scheier & Carver, 1985). Studies indicate that higher self-esteem and optimism are associated with reduced stress, enhanced job satisfaction, and better professional commitment (Li, 2024; Roomi et al., 2022). However, empirical research focusing specifically on the relationship between self-esteem and optimism among secondary school teachers in Pakistan is limited.

This study investigates whether self-esteem predicts optimism among secondary school teachers, providing evidence to inform teacher development and psychological well-being programs.

Research shows a strong link between self-esteem and optimism in educational contexts. For instance, Borralho et al. (2025) found that teachers' self-esteem significantly predicted optimism, enhancing well-being and reducing occupational burnout. In Pakistan, Anwar and Nasreen (2024) observed that higher teacher self-esteem correlated with greater professional commitment and positive attitudes toward teaching. Similarly, Roomi et al. (2022) reported significant associations between self-esteem and optimism among optometry students, highlighting the relevance of these constructs in professional settings.

International research underscores the role of optimism as a psychological buffer against stress and job dissatisfaction (Carver & Scheier, 2014; Borralho et al., 2025). Bibi and Karim (2017) emphasized that self-esteem contributes to resilience and adaptive coping, which in turn enhances optimism. These findings collectively suggest that teachers' self-esteem may serve as a predictor of optimism, consistent with Positive Psychology theory, which emphasizes the role of personal strengths in achieving well-being (Seligman, 2011).

Despite growing research, studies directly exploring the relationship between self-esteem and optimism among secondary school teachers in Lahore remain scarce, making this study both timely and relevant.

Theoretical Framework

This study draws upon Positive Psychology Theory (Seligman, 2011), which focuses on individual strengths and their impact on well-being. Self-esteem, representing a positive self-view, provides the psychological foundation for optimism, defined as a hopeful and positive outlook toward future events (Carver & Scheier, 2014). Teachers with high self-esteem are likely to maintain optimism even under occupational stress, promoting resilience and job satisfaction.

Additionally, motivational theory (Maslow, 1943) and cognitive-existential frameworks (Greenberg et al., 1986) highlight how self-esteem supports adaptive behaviors and positive expectations in professional contexts. Based on these theories, self-esteem is treated as a predictor and optimism as the outcome variable.

Following the theories that make up the theoretical framework.

Maslow's theory

Abraham Maslow shaped the hierarchy of human needs, in which he also considered self-esteem. According to him, self-esteem has two different sides to be noted: the one in which people want self-respect from others, and the other in which they want appreciation. Maslow also said that without the execution of this stage, it is hard to move on to the next stage (Maslow, 1987).

Terror Management Theory

According to this theory, self-esteem plays a vital role in one's life as a supportive system, and hence one can easily develop a belief in existence and life hereafter (Greenberg, 2008).

Afzal et al. (2016) studied the effect of directive management on self-esteem. Results revealed that management plays a vigorous role in increasing self-esteem.

Chohan and Qadir (2013) inspected the influence of Self-esteem of Repeaters of Elementary Grade Students. Their results showed that grade retention had a greatly adverse effect on the self-esteem of repeaters.

Shaheen et al. (2014) conducted research whose foremost purpose was to explore the influence of optimism before and after the treatment of breast cancer. The results revealed that optimistic women with breast cancer show low levels of stress before and after the diagnosis of breast cancer in comparison to less optimistic women.

Another study was carried out by Kamran and Schaw (2017) on renal transplant recipients who had normal kidney function. The goal of their study was to see how optimism affected people's perceptions of their health. Patients who have a healthy life

status are more hopeful than those who do not have a healthy life status, according to the findings.

Malik, Naeem, and Ahmed (2013) performed a study to look at the impact of optimistic divisions and culture on pharmaceutical salespeople's creative work. 700 managers and non-managerial salespeople from national and global pharmaceutical firms in Pakistan's Lahore area were given self-administered survey questionnaires. On the statistically valid data of 365 research participants, regression analyses were used. Results revealed that positivity subdivision and optimistic attitude positively influence the creative work of the salesforce, while no positive impact was shown for sales managers.

Self-esteem and Optimism are related to social interaction, attachment, resilience, personal identity, and health practices. There is a greater difference between self-esteem and optimism in terms of gender. 193 students were selected from three high schools in Pennsylvania and SES to measure self-esteem, and the LOT-R was used to measure this. Data was collected, and results show that males scored higher in self-esteem and optimism than the females, who scored lower and had a lower level of self-esteem and optimism (Puskar et al., 2010).

According to certain research, medical and law students endure stress in their first year, and undergraduate students have similar sensations of anxiety. Some factors have a significant impact on students' early college transition. Coping strategies, self-esteem, perfectionism, optimism, and extroversion are some of these variables. All these elements are interconnected and have an impact on a student's college transition. Self-worth is defined as self-esteem, while optimism is defined as a positive outlook on life. These two elements are quite significant and play a crucial part in the adjustment process. To cope with low self-esteem, many students engage in harmful health behaviors. As a result, it is critical to research and boost pupils' self-esteem. Optimism is another essential personality trait that has an impact on a student's health. If a person is optimistic, they are less likely to get an illness and will be able to cope with poor health. Rosenberg's self-esteem scale, which has ten statements. The LOT-R (Life Orientation Test-Revised) was used to assess optimism. A longitudinal survey was performed with a total of 525 first-year students. Three hundred and fifty students took part in wave one, while three hundred and eighty-one students took part in wave two. Individuals with lower self-esteem reported greater negative feelings, according to the findings. Optimism and health are opposed. As a result, these elements have an impact on people's social adjustment (Pritchard et al, 2007).

During the treatment of colorectal and breast cancer, self-esteem, optimism, and self-efficacy were increased and strengthened. Pre- and post-tests were used to investigate this crucial phenomenon. The sample was chosen using a random sampling approach. The experimental group examined the significance of each person's emotional reactions and

cognitive evaluations of their cancer experience in relation to past life events and future objectives. The control group consisted of eighty-two patients with colorectal or breast cancer who received standard care for four sessions. Out of eighty-two patients, only seventy-four finished and returned the pre-test and post-test measuring optimism, self-efficacy, and self-esteem. The Rosenberg Self-esteem Scale, a four-point Likert scale, was used to gauge self-esteem.

Optimism is measured using the Life Oriented Test-Revised, which consists of 12 items on a five-point Likert scale. The Generalized Self-Efficacy Scale (GSES), developed by Schwarzer in 1992, is used to measure self-efficacy. It gauges a person's belief in their own capacity to adjust to difficult situations and deal with cancer. Demographic information was collected separately on a separate form and included age, gender, diagnosis, marital status, education level, employment position, family income, religion, and use of further professional psychological assistance.

A randomized clinical experiment was among the earliest. Prospective studies empirically show that a meaning-making coping strategy-based intervention can improve cancer patients' evaluations of their own optimism, self-worth, and self-efficacy. Following data analysis, individuals in the experimental group showed noticeably greater levels of optimism, self-efficacy, and self-esteem than those in the control group.

When it comes to self-esteem and optimism, men and women have different perspectives. These two factors have been studied extensively and have been linked to health, social relationships, and personal identity. A cross-sectional survey of 193 students from three high schools in rural Pennsylvania was performed to see if there were any variations in male and female perceptions of self-esteem and optimism. Questionnaires were used as instruments. Self-esteem was measured using Rosenberg's self-esteem scale, and optimism was measured using the optimism scale. The data was gathered utilizing the Revised Life Oriented Test (LOT-R). The results showed that girls performed lower than boys on measures of optimism and self-worth. Positivity ($p < 0.0001$) and self-worth ($p < 0.0001$) are lower in girls than in boys. The findings suggested that girls' self-esteem and optimism could be improved (Puskar et al, 2010).

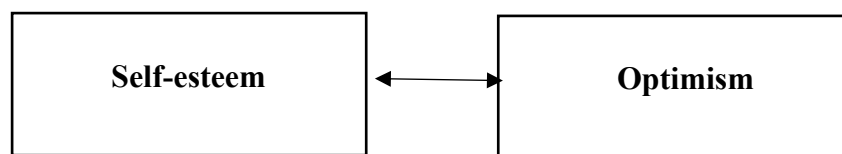
It was expected that optimism would reduce anxiety and improve academic performance. As we all know, because medical and engineering courses are so challenging and demanding, students often experience stress, anxiety, and despair. This is why research has been done on the relationship between anxiety and optimism, as well as how these factors affect academic achievement. Additionally, the researchers sought to determine whether medical and engineering students differed in their optimism and academic achievement. The study's sample consisted of 346 students from seven different colleges.

171 medical students from three Indian medical colleges and 175 engineering students from four universities make up this sample.

Questionnaires were used as tools to assess optimism and anxiety. The Learnt Optimism Scale (LOS, 2000) was used to measure optimism, and the Sinha Comprehensive Anxiety Test (SCAT, 2007) was used to measure anxiety. To gather data on academic achievement, universities provide the most recent results from the preceding two semesters. Pilot testing was done with Indian students, and both surveys are standardized. Data analysis revealed a negative relationship between optimism and anxiety. Additionally, it was discovered that anxiety negatively correlated with academic achievement. There is a strong positive correlation between students' academic success and optimism. While the gender disparities were small, there were significant differences in perception between engineering and medical students. Colleges discovered that this helped students perform better academically by reducing their levels of tension and anxiety (Singh & Jha, 2013). Teachers are treated differently, which is why their optimism and sense of self-worth are disturbed, and their optimism will also be disturbed.

Figure 1

Conceptual framework



Research Objectives

The following were the objectives of the study:

1. To find out the relationship between self-esteem and optimism in secondary school teachers of Lahore.
2. To investigate the gender differences in self-esteem and optimism in secondary school teachers of Lahore.
3. To find out the level of self-esteem in secondary school teachers.
4. To find out the status of optimism in secondary school teachers.

Hypotheses

H₀₁: There is no significant relationship between self-esteem and optimism in secondary school teachers of Lahore.

H₀₂: There are no significant gender differences in self-esteem and optimism in secondary school teachers of Lahore.

Research Questions

1. What is the level of self-esteem in secondary school teachers?
2. What is the status of optimism in secondary school teachers?

Methodology

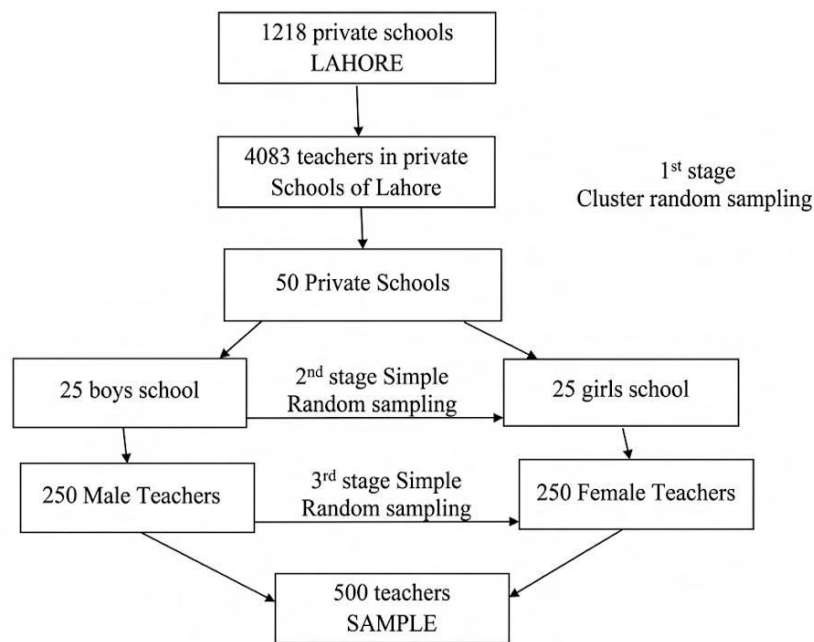
A correlational research design was employed to examine the relationship between self-esteem and optimism among secondary school teachers in Lahore. Pearson correlation analysis and independent-sample t-tests were used for data analysis.

Sampling

The population consisted of secondary school teachers in private schools in Lahore. Using multistage random sampling, 50 schools were selected, and 500 teachers (250 male, 250 female) were randomly invited to participate.

Figure 2

Sampling Framework



Participant characteristics

1. Age: 23–58 years
2. Teaching experience: 1–30 years ($M = 12$)

3. Qualifications: Bachelor's and master's degrees in education or related fields

Ethical safeguards included informed consent, voluntary participation, and confidentiality of responses.

Instruments

1. **Rosenberg Self-Esteem Scale (RSES):** 10 items; 4-point Likert scale; measures global self-esteem (Rosenberg, 1965).
2. **Life Orientation Test-Revised (LOT-R):** 10 items; 5-point Likert scale; measures dispositional optimism (Scheier et al., 1994).
3. **The demographic questionnaire** included age, gender, qualifications, teaching experience, and school type.

Reliability

Table 1

Descriptive Statistics and Reliability of Measures (N = 500)

Scale	Items (k)	Cronbach's α	M (SD)
Self-Esteem	10	.72	30.61 (4.66)
Optimism	10	.89	18.71 (4.24)

Note. Cronbach's α values above .70 indicate acceptable internal consistency (George & Mallery, 2019).

Data Collection & Analysis

Data were collected using printed questionnaires, distributed and retrieved by researchers. Responses were coded and analyzed in SPSS version 26. Pearson's correlation measured the association between self-esteem and optimism. An independent samples t-Test assessed gender differences. Significance was set at $p < .05$ (two-tailed).

Results

Pearson's product-moment correlation was used to find out the relationship between self-esteem and Optimism. The relationship between self-esteem and optimism is shown in Table 2.

Table 2

Correlations between self-esteem and optimism

No.	Variables	N	M	S. D	1	2
1	Self-esteem	500	30.61	4.6	1	.592**
2	Optimism	500	18.71	4.2		1

The correlation in Table 2 shows that self-esteem and optimism developed a moderate correlation with each other ($r = .592$, $p < .01$). According to Gay, Mills, and Airasian (2012), a correlation coefficient value that lies equal to or above ± 0.30 shows a strong correlation.

Table 3

Independent sample test for gender differences in self-esteem and optimism (N=500)

Variables	Men(n=250) M(SD)	Women(n=250) M(SD)	t(df)	p
Self-esteem	30.73(4.45)	30.49(4.87)	.584(498)	.559
Optimism	18.50(4.09)	18.93(4.38)	-1.12(498)	.260

Table 3 regarding the independent samples t-test shows that there is a non-significant difference in self-esteem and optimism among secondary school teachers.

Findings

1. The mean value of self-esteem is 30.61 with a standard deviation of 4.666.
2. The mean value of optimism is 18.71 with a standard deviation of 4.241.
3. Hypothesis H_{01} was rejected as there is a significant positive relationship between self-esteem and optimism in secondary school teachers, as the value of the Pearson correlation coefficient is .592.
4. The correlation in Table 4.2 shows that self-esteem and optimism developed a moderate correlation with each other ($r = .592$, $p < 0.01$). According to Gay, Mills, and Airasian (2012), a correlation coefficient value that is equal to or above ± 0.30 shows a strong correlation.
5. Hypothesis H_{02} was accepted as there are no significant gender differences in self-esteem and optimism in secondary school teachers of Lahore. For male self-esteem ($M=30.73$ and $SD= 4.45$) and optimism ($M=18.50$ and $SD= 4.09$), and for female self-esteem ($M=30.49$ and $SD= 4.87$) and optimism ($M=18.93$ and $SD= 4.38$), and both for self-esteem ($t(498) = .584$, $p=.559$, two-tailed) and for optimism ($t(498) = -1.129$, $p=.260$, two-tailed). The values $p>.559$ & $.260 > 0.05$, so there are no significant gender differences in self-esteem and optimism in secondary school teachers of Lahore.

Conclusion and Discussion

The findings confirm that self-esteem is positively associated with optimism among secondary school teachers in Lahore. Teachers with higher self-esteem exhibit greater optimism, consistent with Positive Psychology theory (Seligman, 2011). These results align with studies in Pakistan and internationally (Anwar & Nasreen, 2024; Borralho et al., 2025; Roomi et al., 2022).

No significant gender differences were observed, suggesting comparable levels of self-esteem and optimism among male and female teachers. This aligns with previous research indicating that dispositional optimism is independent of gender in professional contexts (Ahmad et al., 2023).

These results underscore the value of interventions aimed at enhancing self-esteem and optimism in teacher development programs, which may improve job satisfaction, reduce stress, and enhance professional commitment.

A consistent finding given by Chan (2004) relates to the present study's findings. Consequences indicated that optimism has a significant correlation with the personality traits of employees' stress levels and job satisfaction. Individuals with positive cognition lead them towards a better life, better mental health, and better relationships.

Another consistent study given by Strauss (2000) relates to the present research findings. Being overweight generally leads to the lowest level of self-esteem and influences mental health, psychological well-being, and subjective well-being. These results showed a significant correlation between self-esteem and overweight.

Another study by Jenaabadi, Ahani, and Sabaghi (2015) presented a positive and significant correlation between optimism and emotional setup with well-being. These results are consistent with the findings of the present research.

A study, conducted by Newark, Elasser, and Stieglitz (2016), with the results showed significant differences in self-esteem and efficacy level in mentally retarded patients. These results are inconsistent with the present research funding.

Brodhagen and Wise (2008) conducted another study, finding that participants with higher degrees of optimism had lower levels of distress. Furthermore, dispositional optimism fully buffered against the description of people who had been through traumatic situations such as rape, assault, and fire; individuals with higher levels of optimism had lower levels of distress. The experience of child sexual abuse was not linked to suffering, contrary to expectations. These findings are in line with those of the current investigation.

According to the findings, research on personality traits is required to improve instructors' self-esteem and optimism. When one's self-esteem is strong, one's optimism is high as well. Optimism fosters self-confidence and helps people attain their objectives more quickly. Self-esteem, on the other hand, is a person's mindset about their own self-worth and value in every scenario. Optimistic people are thought to have better self-esteem, and a rise in optimism led to an increase in self-esteem in individuals. Individuals with higher self-esteem have more positive and fewer negative effects, as well as a more fulfilled existence. Many studies have found a link between self-esteem and optimism in various populations.

The findings of this study may be applied to a wide range of topics, including but not limited to social studies, arts, education, and science. The suggestions for this study are as follows. This study may be repeated with school pupils or headmasters as participants. This study might be used to compare secondary school teachers in urban and rural locations to determine if their self-esteem and optimism differ. This study might be used in a variety of topics. More studies on the impact of self-esteem and optimism on work satisfaction, wellness, school success, happiness, stress, anxiety, and a variety of other factors may be undertaken. Teachers' training programs should be intended to increase their self-esteem and optimism levels. Research on the same issue at the provincial level might provide intriguing results. The current study offers insight into how males and females differ in their self-esteem and optimism levels, and how to enhance them.

Recommendations

1. Implement teacher development programs targeting self-esteem, optimism, and resilience.
2. Promote institutional support mechanisms, including counseling, recognition, and peer-support groups.
3. Conduct further research on how self-esteem and optimism influence teacher outcomes such as job satisfaction, stress, and student learning.
4. Explore broader and more diverse samples, including public school teachers, headmasters, and rural educators.

References

- Afzal, M., Waqas, A., Farooq, A., & Hussain, M. (2016). The impact of transformational leadership style on nurses' self-esteem in public hospitals of Lahore, Pakistan. *International Journal of Social Sciences and Management*, 3(4), 287–293. <https://doi.org/10.3126/ijssm.v3i4.15963>
- Ahmad, M., Majeed, S., & Ullah, S. (2023). Academic optimism: A study of secondary school teachers' perceptions. *Journal of Development and Social Sciences*, 4(2), 16–28. [https://doi.org/10.47205/jdss.2023\(4-II\)02](https://doi.org/10.47205/jdss.2023(4-II)02)
- Anwar, M., & Nasreen, S. (2024). Interrelationship of teacher self-esteem in private secondary schools of Lahore. *Annals of Human and Social Sciences*, 5(2), 596–609. [https://doi.org/10.35484/ahss.2024\(5-II\)55](https://doi.org/10.35484/ahss.2024(5-II)55)
- Bibi, Z., & Karim, J. (2017). Self-esteem, resilience, and social trust as mediators in the relationship between optimism and job satisfaction: A preliminary analysis. *Pakistan Journal of Psychological Research*, 32(1), 155–173.
- Borrvalho, L., Araújo Candeias, A., de Jesus, S. N., & Viseu, J. (2025). Healthy school, healthy teachers: Mediating effect of optimism. *Frontiers in Psychology*, 16, 1506161. <https://doi.org/10.3389/fpsyg.2025.1506161>
- Brodhagen, A., & Wise, D. (2008). Optimism as a mediator between the experience of child abuse, other traumatic events, and distress. *Journal of Family Violence*, 23(6), 403–411. <https://doi.org/10.1007/s10896-008-9165-8>
- Carver, C. S., & Scheier, M. F. (2014). Dispositional optimism. *Trends in Cognitive Sciences*, 18(6), 293–299. <https://doi.org/10.1016/j.tics.2014.02.003>
- Chohan, B. I., & Qadir, S. A. (2013). Self-esteem of the repeaters: A mixed-method study of elementary grade students. *Pakistan Journal of Psychological Research*, 28(2).
- Gay, L. R., Mills, G. E., & Airasian, P. W. (2012). *Educational research: Competencies for analysis and applications* (10th ed.). Pearson.
- George, D., & Mallery, P. (2019). *IBM SPSS statistics 26 step by step: A simple guide and reference*. Routledge.
- Greenberg, J. (2008). Understanding the vital human quest for self-esteem. *Perspectives on Psychological Science*, 3(1), 48–55. <https://doi.org/10.1111/j.1745-6916.2008.00061.x>

- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In R. F. Baumeister (Ed.), *Public self and private self* (pp. 189–212). Springer. https://doi.org/10.1007/978-1-4613-9564-5_10
- Jenaabadi, H., Ahani, M. A., & Sabaghi, F. (2015). Examining the relationship of optimism and emotion regulation strategies with general health among students of University of Sistan and Baluchestan. *Health*, 7(7), 865–872. <https://doi.org/10.4236/health.2015.77102>
- Kamran, F., & Schaw, C. F. (2017). Perceived health status and life orientation (optimism) after renal transplantation. *Pakistan Journal of Psychological Research*, 32(1).
- Li, J. (2024). Work–family conflict, optimism, and job satisfaction among teachers in Chinese private middle schools. *Advances in Social Behavior Research*, 10, 49–53. <https://doi.org/10.54254/2753-7102/10/2024093>
- Malik, M. E., Naeem, B., & Ahmad, W. (2013). Role of optimism subculture and optimism in sales force creative performance: Empirical evidence from pharmaceutical industry in Pakistan. *World Applied Sciences Journal*, 24(8), 1037–1043.
- Maslow, A. H. (1987). *Motivation and personality* (3rd ed.). Harper & Row.
- Newark, P. E., Elsässer, M., & Stieglitz, R. D. (2016). Self-Esteem, Self-Efficacy, and Resources in Adults With ADHD. *Journal of Attention Disorders*, 20(3), 279–290. <https://doi.org/10.1177/1087054712459561>
- Roomi, M. A., Farooq, A., Bilal, A., Khaliq, S., Iqbal, H., & Ashraf, M. I. (2022). Self-esteem, optimism, and their associated factors among optometry students at the University of Lahore. *Journal of University Medical & Dental College*, 13(4), 473–477. <https://doi.org/10.37723/jumdc.v13i4.736>
- Pritchard, M. E., Wilson, G. S., & Yamnitz, B. (2007). What predicts adjustment among college students? A longitudinal panel study. *Journal of American College Health*, 56(1), 15–21. <https://doi.org/10.3200/JACH.56.1.15-22>
- Puskar, K. R., Bernardo, L. M., Ren, D., Haley, T. M., Hetager Tark, K., Switala, J., & Siemon, L. (2010). Self-esteem and optimism in rural youth: Gender differences. *Contemporary Nurse*, 34(2), 190–198. <https://doi.org/10.5172/conu.2010.34.2.190>
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.

- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4(3), 219–247. <https://doi.org/10.1037/0278-6133.4.3.219>
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67(6), 1063–1078. <https://doi.org/10.1037/0022-3514.67.6.1063>
- Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Free Press.
- Shaheen, N., Andleeb, S., Ahmad, S., & Bano, A. (2014). Effect of optimism on psychological stress in breast cancer women. *FWU Journal of Social Sciences*, 8(1), 84–90.
- Singh, I., & Jha, A. (2013). Anxiety, optimism and academic achievement among students of private medical and engineering colleges: A comparative study. *Journal of Educational and Developmental Psychology*, 3(1), 222. <https://doi.org/10.5539/jedp.v3n1p222>
- Woolfolk, A., & Shaughnessy, M. F. (2004). An interview with Anita Woolfolk: The educational psychology of teacher efficacy. *Educational Psychology Review*, 16(2), 153–176. <https://www.jstor.org/stable/23363838>