

ISRG Journal of Arts, Humanities and Social Sciences (ISRGJAHSS)



ISRG PUBLISHERS

Abbreviated Key Title: ISRG J Arts Humanit Soc Sci

ISSN: 2583-7672 (Online)

Journal homepage: <https://isrgpublishers.com/isrgjahss>

Volume – III Issue -II (March – April) 2025

Frequency: Bimonthly



Adaptation of the Rosenberg Self-Esteem Scale for Use Among Azerbaijani Adults: Psychometric Evaluation and Associations with Life Satisfaction, Resilience, Depression, Anxiety, and Stress

Prof. Bakhtiyar Aliyev¹, Ph.D. Elnur Rustamov^{2*}, Ulkar Zalova Nuriyeva³, Lamiya Huseinova⁴, Tamara Yusifova⁵, Rahila Mammadova⁶

^{1,2,3,4,5,6} Baku, Azerbaijan, Zip code: AZ1075, Psychology Scientific Research Institute

| **Received:** 16.04.2025 | **Accepted:** 21.04.2025 | **Published:** 22.04.2025

***Corresponding author:** Ph.D. Elnur Rustamov

Baku, Azerbaijan, Zip code: AZ1075, Psychology Scientific Research Institute

Abstract

Self-esteem constitutes a fundamental element of psychological and emotional well-being, playing a pivotal role in shaping individuals' self-concept and their ability to effectively navigate and manage various life challenges. The objective of the present study was to adapt the Rosenberg Self-Esteem Scale for application among Azerbaijani adults and to examine the relationships between life satisfaction, resilience, depression, anxiety, and stress. The study sample comprised 327 Azerbaijani adults (296 females and 31 males). The adaptation of the 10-item scale involved confirmatory factor analysis (CFA), along with assessments of criterion-related validity and reliability. Furthermore, correlation and network analyses identified significant associations between the Rosenberg Self-Esteem Scale and the variables of life satisfaction, resilience, depression, anxiety, and stress. Specifically, self-esteem was negatively correlated with depression, anxiety, and stress, while exhibiting positive correlations with resilience and life satisfaction. Collectively, the adapted version of the Rosenberg Self-Esteem Scale demonstrated robust psychometric properties, supporting its validity and reliability for use in the Azerbaijani population.

Keywords: self-esteem, life satisfaction, scale adaptation, resilience, confirmatory factor analysis

Introduction

The concept of self is integral to how an individual in adulthood perceives themselves, their relationships with others, and the coherent understanding of the qualities they attribute to themselves (Rogers, 1951). Over time, this self-concept is shaped by various factors, including social roles, personal experiences, and societal attitudes. While self-awareness begins in childhood, it continues to evolve in adulthood, with individual experiences in professional life, family, and social interactions further shaping this process. For instance, successes or failures in professional life significantly influence one's self-concept and self-esteem (Lodi-Smith et al., 2018). Furthermore, self-concept can change in response to the social environment, as individuals evaluate themselves based on their relationships and societal norms, which may vary across cultures and social groups (Galliher et al., 2017).

Self-esteem is an individual's perception of their own worth and serves as a key evaluative aspect of self-concept (Gnambis et al., 2018; Hutz & Zanon, 2011). It is positively associated with well-being, life satisfaction, and positive emotions (Diener & Diener, 1995; Freire & Tavares, 2011; Orth et al., 2019). In other words, self-esteem plays a crucial role in influencing an individual's mental health and success. Research has consistently shown that low self-esteem is a significant factor in the development of depression (Sowislo & Orth, 2013; Steiger et al., 2014) and is associated with an increased risk of obesity (Iannaccone et al., 2016). Additionally, Orth et al. (2009) demonstrated that low self-esteem is linked to the worsening of depression over time, underscoring its importance in mental health.

In relation to anxiety and mood disorders, low self-esteem has been identified as a risk factor for the development of these issues. Zeigler-Hill (2011) highlighted a strong relationship between low self-esteem and anxiety disorders, while Lee & Robbins (1998) suggested that high self-esteem helps reduce social anxiety, allowing individuals to feel more comfortable in social situations. These findings indicate that self-esteem is essential for maintaining psychological well-being and reducing the risk of mental health issues.

High self-esteem is associated with positive psychological health outcomes. Mann et al. (2004) found that high self-esteem serves as a protective factor against psychological disorders. Moreover, Orth & Robins (2014) emphasized that self-esteem positively impacts long-term mental health, underlining its central role in psychological resilience. When self-esteem is elevated, an individual's psychological well-being is also strengthened (Aslan, 2024; Nagar & Saxena, 2024).

Recent research also emphasizes the mediating role of self-esteem in the relationship between social support and mental health outcomes (Orth & Robins, 2022). Scholars agree that several key factors influence the development of self-esteem, including personal experiences and external influences such as social support. Carl Rogers, a key figure in humanistic psychology, posited that self-esteem is shaped by unconditional love and acceptance, particularly from parents and loved ones (Rogers, 1961). When individuals perceive love and acceptance as conditional, it negatively impacts their self-esteem. Recent developmental psychology research continues to support this idea, suggesting that parental warmth and unconditional support are predictive of higher self-esteem in adolescents (Sowislo, Orth, & Meier, 2021; Brummelman & Thomaes, 2022).

Additionally, Henri Tajfel's Social Identity Theory suggests that self-esteem is closely linked to group memberships and the societal value attributed to these groups. Individuals who identify with high-status groups tend to report higher self-esteem, while those in lower-status groups may experience diminished self-worth (Tajfel, 1981).

Bracken's Multidimensional Self-Concept Theory further supports this view, highlighting the significance of personal achievements across various domains—such as academic, social, familial, and personal spheres—in the development of self-esteem. According to Bracken (1992), accomplishments in these areas contribute to a positive self-concept and enhance one's appreciation of their own value. In line with this, Hewitt (2002) argued that low self-esteem contributes to heightened psychological distress, particularly in relation to anxiety and depression. He also noted that individuals with low self-esteem tend to be less resilient to stress, increasing the likelihood of maladaptive behaviors such as substance abuse and social isolation.

Conversely, high self-esteem is associated with numerous psychological and social benefits. Branden (1994) noted that individuals with high self-esteem tend to experience better mental well-being and life satisfaction (Srivastava & Srivastava, 2023; Sharma & Khan, 2023). High self-esteem also facilitates fulfilling interpersonal relationships and overall quality of life.

In conclusion, the existing body of research consistently demonstrates that self-esteem plays a pivotal role in shaping adult mental health and well-being, whether it is high or low (Sharma & Khan, 2023). This highlights the urgent need for enhancing self-esteem through targeted interventions that may serve as a valuable strategy to improve individuals' psychological functioning and life outcomes (Nagar & Saxena, 2024; Aslan, 2024). However, the absence of a psychometrically validated tool in the Azerbaijani language for measuring self-esteem poses a significant limitation to advancing research and practical initiatives in this field. Consequently, the adaptation of Rosenberg's Self-Esteem Scale into Azerbaijani emerges as a vital and necessary step toward addressing this gap.

The Rosenberg Self-Esteem Scale is a tool used to study and understand how individuals treat themselves and how much respect and value they place on themselves. The adaptation of the Rosenberg Self-Esteem Scale into more than 28 languages and its use in over 53 countries highlights its significance as a valuable measurement tool for assessing self-esteem across diverse cultural and socio-economic settings (Schmitt et al., 2005). Scale was adapted to Dutch (Verkuyten & Thijs 2002), Chinese (Wang & Zhan, 2009), African (Kizito & Aning, 2020), Taiwan (Lu & Shih, 1997), Pakistan (Bari & Rahman, 2013). and so on. This widespread adaptation underscores the importance of culturally sensitive instruments in capturing the construct of self-esteem in various cultural contexts.

The primary objective of the present study is to assess the psychometric properties of the Rosenberg Self-Esteem Scale (RSES) in an Azerbaijani adult population, and to explore the relationships between self-esteem, resilience, life satisfaction, depression, stress, and anxiety.

Method

Participants

The present study includes a sample of 327 adults from Azerbaijan. Participants were selected through a convenience sampling method, with data collected via online surveys. Of the total sample, 296 participants (90.5%) are female, while 31 participants (9.5%) are male. The mean age of the group is 1.09, and SD is .293. Regarding the economic situation, 75.5% of participants (n=247) rated their financial status as average, 3.1% as good, and 17.4% as poor. In terms of birth order, 44% are the first child, 33% are the second child, and 22.9% are the third or later child in their family. The majority of respondents (73.7%, n=241) reported having higher education, while 10.7% (n=35) indicated having secondary education. Additionally, 39.8% of participants mentioned that they are currently not working, while 60.2% stated they are employed. Further demographic and key information about the participants is provided in Table 1.

Table 1. Descriptive information of the participants

	Frequency	%
<i>Gender</i>		
Female	296	90.5
Male	31	9.5
<i>Marital status</i>		
Single	181	55.4
Married	146	44.6
<i>Economic status</i>		
Poor	57	17.4
Moderate	247	75.5
Good	10	3.1
<i>Employment status</i>		
Employment	130	39.8
Unemployed	197	60.2
<i>Educational status</i>		
Secondary	35	10.7
Vocational or specialized	51	15.6
secondary	241	73.7
Higher		
<i>Child order in the family</i>		
Older	144	44.0
Middle	108	33.0
Younger	75	22.9

Ethics

The study strictly followed the ethical guidelines established by the Helsinki Declaration. Prior to the commencement of the research, ethical approval was granted by the Ethics Committee of the Psychology Scientific Research Institute in Baku, Azerbaijan. Informed consent was obtained from all participants included in the study.

Measures

The Rosenberg Self-Esteem Scale (RSE), developed by Morris Rosenberg in 1979, is a tool used to assess an individual's self-

esteem. It includes 10 items, such as "I am able to do things as well as most other people," and measures low self-esteem using a 9-point Guttman scale. The scoring method combines responses from both positively and negatively worded statements: items 1, 3, 4, 7, and 10 are rated as "strongly disagree" or "disagree," while items 2, 5, 6, 8, and 9 are rated as "strongly agree" or "agree." The scale demonstrates excellent internal consistency, with a Guttman coefficient of 0.92, and strong test-retest reliability, showing correlation coefficients of 0.85 and 0.88 over a two-week period.

The Depression Anxiety Stress Scales (DASS-21) was developed by Lovibond and Lovibond (1995). It is a self-report instrument consisting of 42 items designed to measure three related negative emotional states: depression, anxiety, and stress. DASS-21 is the short form of DASS-42 and includes 7 items for each of the three subscales (e.g., "I was intolerant of anything that kept me from getting on with what I was doing"). Responses are rated on a 4-point Likert scale ranging from 0 ("Did not apply to me at all") to 3 ("Applied to me very much"). The overall Cronbach's alpha for the DASS-21 scale was 0.74.

The Brief Resilience Scale (BRS) is utilized to evaluate participants' mental resilience. The scale was developed by Smith et al. in 2008 and comprises six items. Items 1, 3, and 5 are framed positively, while items 2, 4, and 6 are negatively worded. Scoring involves reverse coding the negatively worded items (2, 4, and 6) and calculating the average of all six items. Participants responded to each statement using a 5-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree." The BRS has shown strong internal consistency, with Cronbach's alpha values between .80 and .91, confirming its reliability in assessing mental well-being.

The Satisfaction with Life Scale (SWLS), developed by Diener, Emmons, Griffin, and Larsen, is a concise instrument designed to assess an individual's overall life satisfaction. The Azerbaijani adaptation of the SWLS was conducted by Osmani et al. The scale comprises five items (e.g., "If I could live my life over, I would change almost nothing") and utilizes a 7-point Likert scale ranging from 1 ("strongly disagree") to 7 ("strongly agree"). Higher scores on the SWLS reflect greater life satisfaction.

Data analysis

The present study aimed to examine the psychometric properties of the Rosenberg Self-Esteem Scale (RSES), focusing on its structural validity, overall reliability, criterion-related validity, and predictive validity. Structural validity was evaluated through Confirmatory Factor Analysis (CFA), utilizing the Maximum Likelihood estimation method in SPSS Statistics 29. A comprehensive set of fit indices was considered to assess model fit, including the chi-square (χ^2)/degrees of freedom (df) ratio, Comparative Fit Index (CFI), Normed Fit Index (NFI), Relative Fit Index (RFI), Incremental Fit Index (IFI), Tucker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA). Reliability was assessed through various coefficients, including Cronbach's alpha (α), McDonald's omega (ω), and Guttman's lambda (λ_6). Additionally, a network analysis was conducted to explore the relationships between self-esteem, resilience, depression, anxiety, and stress.

Results

To assess the factor structure of the Azerbaijani adaptation of the scale, Confirmatory Factor Analysis (CFA) was performed and results demonstrated favorable fit: χ^2 (35, N=133.089)=3.803;

Relative Fit Index (RFI)=0.817; Incremental Fit Index (IFI)=0.891; Comparative Fit Index(CFI) =0.890; Normed fit index (NFI)=0.858; Tucker-Lewis index (TLI)=0.859 and Root Mean Square Error of Approximation (RMSEA)=0.093

All items of the Rosenberg Self-Esteem Scale (RSES) in the Azerbaijani version exhibit substantial factor loadings (Figure 1). The CFA results reveal that all items have factor loadings exceeding the threshold of 0.30. Specifically, the factor loadings for the 10 self-esteem items, as shown in Figure 1, range from 0.36 to 0.77. Factor loadings above 0.60 are considered indicative of strong associations, while those ranging between 0.30 and 0.59 are classified as moderate. These values are critical for determining the appropriateness of retaining or excluding specific items (Kline, 1994). Such findings contribute to the evaluation of the scale's structural validity and support its use in the Azerbaijani context.

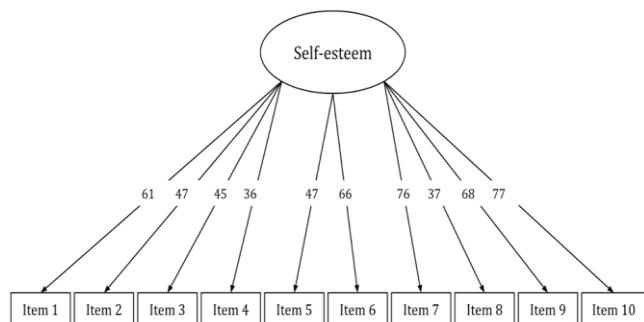


Figure 1. Factor loadings of Rosenberg Self-esteem Scale

Following the Confirmatory Factor Analysis (CFA), an Item Response Theory (IRT) analysis was conducted using the Graded Response Model (GRM). According to psychometric expectations, the discrimination parameters (α) for the scale items were anticipated to exceed a value of 1. As presented in Table 2, the discrimination values ranged from 0.78 to 3.11. In accordance with Baker's (2001) classification criteria, eight items demonstrated high discriminative power, while three items exhibited excellent discrimination with values exceeding 2. These findings indicate that the ten items of the Rosenberg Self-Esteem Scale display sufficient discriminative strength, enabling them to effectively distinguish between different levels of self-esteem among adults in the Azerbaijani population.

Table 2. Item Response Theory estimates for Rosenberg Self-esteem Scale

Item	α	SD	z	P	95% Conf. Interval	
1	1.73	.20	8.31	0.000	1.32	2.14
2	1.04	.14	7.11	0.000	1.33	0.75
3	1.19	.17	6.75	0.000	.84	1.53
4	0.93	.14	6.03	0.000	0.60	1.19
5	1.19	.15	7.73	0.000	1.49	0.88
6	1.82	.20	8.84	0.000	2.22	1.41
7	3.11	.39	7.96	0.000	2.34	3.87
8	0.78	.12	6.07	0.000	1.02	0.52
9	2.04	.22	8.88	0.000	2.49	0.59
10	2.91	.35	8.09	0.000	2.20	3.61

Reliability analysis was carried out using three main indices: Cronbach's alpha, McDonald's omega, and Guttman's lambda (Table 3). The Cronbach's alpha coefficient for the overall scale was calculated as 0.814, indicating high reliability of the scale. Reliability indices for the factors ranged between 0.782 and 0.842. Similarly, McDonald's omega coefficient yielded a value of 0.818, further confirming the reliability of the scale, with factor reliability values ranging between 0.788 and 0.847. Additionally, the Guttman's lambda coefficient was calculated as 0.828, providing further evidence that the items on the scale measure a single underlying construct. Lambda coefficients for the two factors ranged between 0.801 and 0.861. These findings confirm that the Self-Esteem Scale demonstrates strong reliability.

Table 3. Reliability coefficients for Rosenberg Self-esteem Scale

Estimate	McDonald ω	Cronbach α	Guttman λ_6
Point estimate	0.818	0.814	0.828
95% CI lower bound	0.788	0.782	0.801
95% CI upper bound	0.847	0.842	0.861

The criterion-related validity of the Rosenberg Self-Esteem Scale was evaluated through its associations with the Satisfaction with Life Scale, the Brief Resilience Scale, and the three subscales of the DASS-21 (depression, anxiety, and stress). All correlation analyses revealed statistically significant results ($p < .001$). The unidimensional structure of the Rosenberg Self-Esteem Scale demonstrated a moderate positive correlation with life satisfaction ($r = .471$) and resilience ($r = .493$), as well as strong negative correlations with depression ($r = -.570$), stress ($r = -.562$), and anxiety ($r = -.427$). These findings support the scale's criterion-related validity within the Azerbaijani adult sample.

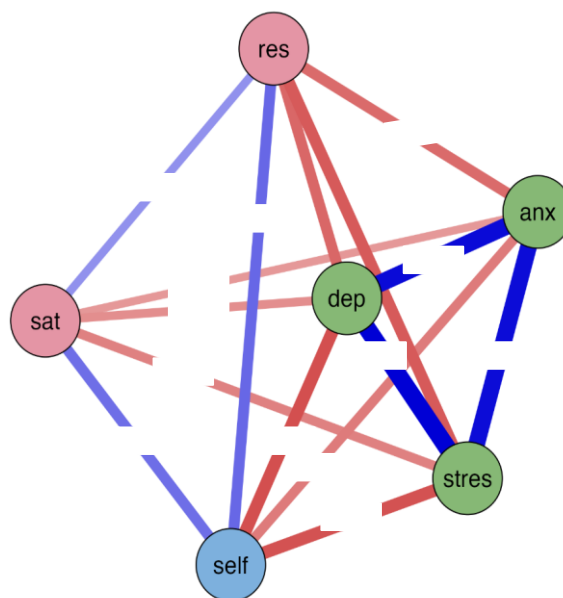


Figure 2. Networking analysis of Rosenberg Self-esteem Scale

The network analysis results depicted in Figure 2 illustrate the interconnections among self-esteem, the five components of the DASS-21, life satisfaction, and resilience. The analysis revealed that self-esteem is significantly associated with life satisfaction, resilience, as well as depression, stress, and anxiety, highlighting the intricate relationships between these psychological constructs.

These results provide meaningful insights into how self-esteem functions as a central psychological construct that is closely linked to both positive and negative aspects of mental health and well-being.

Discussion

In this study, we also examined the validity and reliability of the scale's psychometric properties in Azerbaijan. The primary aim of this research was to adapt the scale into Azerbaijani, assess its validity and reliability in our country, and investigate its psychometric characteristics. The second aim was to explore the relationships between self-esteem, depression, stress, and anxiety scales. Lastly, the study aimed to investigate and analyze the connections between psychological resilience.

The factor structure of the Azerbaijani version of the scale was examined. The structure of this 10-item scale was confirmed. Considering that factor loadings above 0.30 are deemed acceptable, it can be stated that the structure of the scale in the Azerbaijani language shows similarities with the original version (Rosenberg, 1979). Additionally, it has been found that the versions of the scale adapted into other languages (Martín-Albo et al., 2014; Gómez-Lugo et al., 2016; Michaelides et al., 2015) also exhibit similar factor loadings.

Within the framework of Item Response Theory (IRT), the reliability and model fit of each item on the Azerbaijani-adapted Rosenberg Self-Esteem Scale were thoroughly assessed. According to Baker's (2001) classification, eight items demonstrated discrimination parameters greater than 1.0, reflecting a high capacity to differentiate between varying levels of self-esteem. Notably, three items exceeded a discrimination value of 2.0, indicating exceptionally high discriminative power, while only two items yielded relatively low discrimination values. These results suggest that the items are suitably calibrated with respect to difficulty, and collectively, the scale demonstrates robust psychometric performance within the Azerbaijani adult population.

The 10-item Rosenberg Self-Esteem Scale has been subjected to rigorous psychometric evaluation across diverse samples and methodologies. To determine the internal consistency of the scale, multiple reliability analyses were conducted. The findings revealed that the reliability coefficients consistently surpassed the acceptable threshold of 0.70, indicating strong internal consistency. According to Nunnally and Bernstein (1994), a Cronbach's alpha value above 0.70 is considered satisfactory for psychological scales. In the current study, all three indices—Cronbach's alpha, McDonald's omega, and Guttman's lambda—exceeded 0.80, further supporting the scale's reliability and psychometric soundness.

The findings of the concurrent validity analysis revealed a strong positive association between self-esteem and psychological resilience. This result aligns with prior studies suggesting that self-esteem plays a facilitative role in strengthening individuals' capacity to cope with stress, thereby enhancing their psychological resilience (Park et al., 2019). For example, previous research has demonstrated that individuals with higher levels of self-esteem tend to exhibit greater resilience in the face of psychological stress and display more effective coping strategies when confronted with adversity (Smith & Rosenberg, 2015).

The results of the study also revealed a significant negative relationship between self-esteem and depression. This finding

suggests that self-esteem plays a protective role in reducing depressive symptoms. Specifically, individuals with lower levels of self-esteem were observed to have higher levels of depressive symptoms (Orth et al., 2012).

Furthermore, the inverse relationship between self-esteem and stress and anxiety indicates that individuals who value themselves more have a stronger sense of self-confidence, which helps protect them from stress and anxiety. This relationship between the RSES and various psychological constructs is consistent with previous findings that highlight the importance of increasing self-esteem in psychological interventions (Harris & Orth, 2020).

Limitation

Several limitations should be considered when interpreting the findings of this study. First, the data were collected through an online self-report format. It is possible that if the study had been conducted in a face-to-face setting, the results might have differed slightly. Second, the sample was predominantly female, with only a small proportion of male participants, which may have influenced the outcomes and limits the generalizability across genders. Third, a significant number of participants were residents of Baku, which restricts the geographical diversity of the sample and may limit the applicability of the findings to other regions of Azerbaijan. Lastly, all participants were selected through convenience sampling, meaning that their inclusion was random and based on availability, which may also affect the representativeness of the results.

Conclusion

This study is aimed at the adaptation of the self-esteem scale in Azerbaijan. Our research demonstrated the successful adaptation of this scale through the use of various experimental methods. As a result, it was concluded that the self-esteem scale is a suitable, reliable, and valid tool for assessing self-esteem levels in the Azerbaijani context. There is a need for further exploration of the concept of self-esteem and a deeper understanding of its relationship with the variables studied in this research. Future studies should aim to expand our knowledge and provide a more comprehensive understanding of the factors influencing self-esteem in Azerbaijan.

References

1. Aslan, Y. (2024). The mediating role of self-esteem in the relationship between perceived family social support and life satisfaction: A study on youth. *Journal of Social Service Research*, 50(5), 847–856. <https://doi.org/10.1080/01488376.2024.2380891>
2. Bari, A., & Rahman, M. (2013). Validation of the Rosenberg Self-Esteem Scale in the context of Pakistan. *Pakistan Journal of Psychological Research*, 28(2), 137–146.
3. Bracken, B. A. (1992). *Multidimensional Self-Concept Scale Examiner's Manual*. Austin, TX: Pro-Ed. <https://doi.org/10.1037/t01247-000>
4. Branden, N. (1994). *The six pillars of self-esteem*. New York, NY: Bantam Books.
5. Brummelman, E., & Thomaes, S. (2022). Parenting and the development of self-esteem in children and adolescents: A theoretical model and meta-analytic

- review. *Psychological Bulletin*, 148(3), 237–267. <https://doi.org/10.1037/bul0000352>
6. de Moor, E. L., Denollet, J., & Laceulle, O. M. (2021). Self-esteem and satisfaction with social relationships across time: A meta-analytic review. *Journal of Personality and Social Psychology*, 120(1), 173–191. <https://doi.org/10.1037/pspp0000349>
7. Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology*, 68, 653–663. <https://doi.org/10.1037/0022-3514.68.4.653>
8. Freire, T., & Tavares, D. (2011). Influência da autoestima, da regulação emocional e do gênero no bem-estar subjetivo e psicológico de adolescentes. *Archives of Clinical Psychiatry*, 38, 184–188. <https://doi.org/10.1590/S0101-60832011000500003>
9. Galliher, R. V., Rivas-Drake, D., & Dubow, E. F. (2017). Identity processes and the positive youth development perspective: Navigating challenges to the integration of developmental and cultural frameworks. *Developmental Psychology*, 53(11), 1971–1983. <https://doi.org/10.1037/dev0000383>
10. Gnambs, T., Scharl, A., & Schroeders, U. (2018). The structure of the Rosenberg self-esteem scale. *Zeitschrift für Psychologie*, 226, 14–29. <https://doi.org/10.1027/2151-2604/a000317>
11. Gómez-Lugo, M., Espada, J. P., Morales, A., Marchal-Bertrand, L., Soler, F., & Vallejo-Medina, P. (2016). Adaptation, validation, reliability, and factorial equivalence of the Rosenberg Self-Esteem Scale in Colombian and Spanish populations. *The Spanish Journal of Psychology*, 19, E66. <https://doi.org/10.1017/sjp.2016.67>
12. Harris, M. A., & Orth, U. (2020). The link between self-esteem and social relationships: A meta-analysis of longitudinal studies. *Journal of Personality and Social Psychology*, 119(6), 1459–1477. <https://doi.org/10.1037/pspp0000265>
13. Hewitt, J. P. (2002). *The social construction of self-esteem*. New York, NY: Springer.
14. Hutz, C. S., & Zanon, C. (2011). Revisão da adaptação, validação e normatização da escala de autoestima de Rosenberg. *Avaliação Psicológica*, 10, 41–49. <http://pepsic.bvsalud.org/pdf/avp/v10n1/v10n1a05.pdf>
15. Iannaccone, M., D'Olimpio, F., Cella, S., & Cotrufo, P. (2016). Self-esteem, body shame and eating disorder risk in obese and normal weight adolescents: A mediation model. *Eating Behaviors*, 21, 80–83. <https://doi.org/10.1016/j.eatbeh.2015.12.010>
16. Kizito, E., & Aning, R. (2020). Cross-cultural validation of the Rosenberg Self-Esteem Scale in African university students: The case of Ghana. *Journal of Psychology in Africa*, 30(2), 160–167.
17. Lee, R. M., & Robbins, S. B. (1998). The relationship between social connectedness and anxiety, self-esteem, and social identity. *Journal of Counseling Psychology*, 45(3), 338–345. <https://doi.org/10.1037/0022-0167.45.3.338>
18. Lodi-Smith, J., Geise, A. C., Roberts, B. W., & Robins, R. W. (2018). Narrating personality change through the lifespan: Antecedents and correlates of stability and change in self-perceptions of personality. *Journal of Personality and Social Psychology*, 114(3), 509–527. <https://doi.org/10.1037/pspp0000157>
19. Lu, L., & Shih, J. (1997). The Rosenberg Self-Esteem Scale in Taiwan: Psychometric properties and validity. *Journal of Cross-Cultural Psychology*, 28(1), 94–103.
20. Mann, M., Hosman, C. M. H., Schaalma, H. P., & De Vries, N. K. (2004). Self-esteem in a broad-spectrum approach for mental health promotion. *Health Education Research*, 19(4), 357–372. <https://doi.org/10.1093/her/cyg041>
21. Martín-Albo, J., Núñez, J. L., Navarro, J. G., & Grijalvo, F. (2014). The Rosenberg Self-Esteem Scale: Translation and validation in university students. *Cambridge University Press*. <https://doi.org/10.1017/sjp.2014.20>
22. Michaelides, M. P., Koutsogiorgi, C., & Panayiotou, G. (2015). Method effects on an adaptation of the Rosenberg Self-Esteem Scale in Greek and the role of personality traits. *Journal of Personality Assessment*, 98(2), 178–188. <https://doi.org/10.1080/00223891.2015.1089248>
23. Nagar, S., & Saxena, T. (2024). Self-esteem, mental well-being and life satisfaction among young adults. *International Journal of Indian Psychology*, 12(2). <https://ijip.co.in/index.php/ijip/article/view/7498>
24. Orth, U., Robins, R. W., & Roberts, B. W. (2009). Low self-esteem prospectively predicts depression in adolescence and young adulthood. *Journal of Personality and Social Psychology*, 96(4), 673–689. <https://doi.org/10.1037/a0012888>
25. Orth, U., & Robins, R. W. (2014). The development of self-esteem. *Current Directions in Psychological Science*, 23(5), 381–387. <https://doi.org/10.1177/0963721414547414>
26. Orth, U., & Robins, R. W. (2022). Understanding the link between self-esteem and mental health: Mechanisms and implications. *Annual Review of Clinical Psychology*, 18, 149–173. <https://doi.org/10.1146/annurev-clinpsy-072720-020421>
27. Orth, U., Robins, R. W., & Widaman, K. F. (2019). The link between self-esteem and social relationships: A meta-analysis of longitudinal studies. *Journal of Personality and Social Psychology*, 116(4), 760–780. <https://doi.org/10.1037/pspp0000181>
28. Park, M., Ko, M.-H., Oh, S.-W., Lee, J.-Y., Ham, Y., Yi, H., Choi, Y., Ha, D., & Shin, J.-H. (2019). Effects of virtual reality-based planar motion exercises on upper extremity function, range of motion, and health-related quality of life: A multicenter, single-blinded, randomized, controlled pilot study. *Journal of*

29. Rogers, C. R. (1951). *Client-centered therapy: Its current practice, implications, and theory*. Boston, MA: Houghton Mifflin.
30. Rogers, C. R. (1961). *On becoming a person: A therapist's view of psychotherapy*. Boston, MA: Houghton Mifflin.
31. Schmitt, D. P., & Allik, J. (2005). Simultaneous administration of the Rosenberg Self-Esteem Scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. *Journal of Personality and Social Psychology*, 89(4), 623–642.
<https://doi.org/10.1037/0022-3514.89.4.623>
32. Sharma, R., & Khan, N. (2023). Impact of social media on self-esteem and psychological well-being: A study of university students. *International Journal of Management Perspective and Social Research*, 5(2), 22–35.
33. Sowislo, J. F., & Orth, U. (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychological Bulletin*, 139(1), 213–240. <https://doi.org/10.1037/a0028931>
34. Sowislo, J. F., Orth, U., & Meier, L. L. (2021). Parental behaviors and the development of self-esteem in adolescence: A longitudinal study. *Journal of Youth and Adolescence*, 50(6), 1124–1137.
<https://doi.org/10.1007/s10964-021-01402-9>
35. Srivastava, A., & Srivastava, A. (2023). Self-esteem as a mediator between social support and psychological well-being among college students. *Journal of Psychology and Behavioral Science*, 11(1), 45–56.
36. Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*. Cambridge, UK: Cambridge University Press.
37. Tulachan, P., Lama, P. Y., Upadhyaya, S., Pant, S. B., Chapagai, M., & Dhungana, S. (2022). Translation, adaptation, and validation of the Nepali version of the Rosenberg Self-Esteem Scale in the adult Nepali population. *SSM - Mental Health*, 2, 100150.
<https://doi.org/10.1016/j.ssmmh.2022.100150>
38. Verkuyten, M., & Thijs, J. (2002). The Rosenberg Self-Esteem Scale: Validation of the Dutch version in adolescents and adults. *European Journal of Psychological Assessment*, 18(4), 209–214.
39. Wang, L., & Zhan, Y. (2009). The adaptation of the Rosenberg Self-Esteem Scale to a Chinese context: Psychometric analysis. *Journal of Cross-Cultural Psychology*, 40(5), 745–760.
40. Zeigler-Hill, V. (2011). The connections between self-esteem and psychopathology. *Journal of Contemporary Psychotherapy*, 41(3), 157–164.
<https://doi.org/10.1007/s10879-010-9167-8>
41. Zhang, L., Huang, Y., Xu, H., & Zhao, Y. (2023). The longitudinal relationship between self-esteem, life

satisfaction, and depressive and anxiety symptoms among Chinese adolescents: Within- and between-person effects. *Frontiers in Psychology*, 14, 11851692.
<https://doi.org/10.3389/fpsyg.2023.11851692>