

Relationship Between Self-Esteem and Social Anxiety: A Cross-Sectional Questionnaire-Based Study

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Abstract

Self-esteem and social anxiety are vital aspects that influence human cognition, affect, and social life. A convenience sample of 244 participants, mostly comprising college students and recent graduates, completed a cross-sectional survey to determine the relationship between self-esteem and social anxiety. The present study used the Rosenberg Self-Esteem Scale to measure the participants' self-esteem levels and the modified Social Anxiety Symptom Severity Scale to assess the social anxiety symptoms of the participants. Each item was scored on a 5-point Likert scale. Data collected from the sections were evaluated to establish a relationship between self-esteem and social anxiety. The study provides empirical evidence on the link between self-esteem and social anxiety among the studied sample, contributing to an enhanced understanding of triggers and self-perception.

Keywords—Self-esteem, Social anxiety, Rosenberg Self-Esteem Scale, Social anxiety symptoms, Psychological well-being.

I. INTRODUCTION

Self-esteem refers to the manner in which an individual views themselves. It consists of perceptions of self-acceptance, and personal worth, and it affects how people see themselves. The Rosenberg self-esteem scale (RSE) comprises ten items designed to quantify a respondent's global self-esteem (Rosenberg, 1965). The scale consists of positively and negatively worded statements that relate to general feelings and attitudes about oneself and one's competencies.

On the other hand, social anxiety is defined as a fear or anxiety about, or related to, being scrutinized or judged in a social situation. It arises when people are exposed to or anticipate social situations such as meeting new people, taking part in conversations, or speaking publicly. Some signs of social anxiety entail feeling insecure, fearful, or self-conscious about being judged by others, as well as self-reported anxiety symptoms and avoiding social events (National Institute of Mental Health [NIMH], 2025).

Self-esteem and social anxiety are interconnected because of the nature of self-perception and social interaction. Past literature has asserted a negative correlation between self-esteem and social anxiety. Specifically, a meta-analysis report that involved 58 independent samples with 32,181 participants

established that self-esteem and social anxiety had a significant negative correlation, ($r=-0.35$); however, the magnitude of the association depended on the measurement instruments used (Zhang et al., 2019). Similarly, a study conducted on adolescents established that there was a link between self-esteem and subsequent social anxiety symptoms, which demonstrated the importance of examining self-components in social anxiety etiology but did not necessarily infer causation (van Tuijl et al., 2014).

Social anxiety entails feeling nervous or fearful of social interactions, speaking in public, meeting new people, and facing social judgment (NIMH, 2025). The condition can also be characterized by feeling insecure about engaging in social interactions and conversations and avoiding such activities due to a fear of being ridiculed or critiqued. This study examines the relationship between self-esteem and social anxiety in order to establish the role that self-acceptance plays in fueling social anxiety. This study is pertinent in light of the fact that college students and young adults are highly exposed to presentation settings, peer and teacher evaluation, and general conversational interactions. Past literature that has investigated the relationship between self-esteem and social anxiety in the population has established

a negative correlation between the variables; for instance in a study conducted on adolescents (Seema & Kumar, 2017).

This study, therefore, seeks to establish the existence of a relationship between self-esteem and social anxiety. The investigation involves a total of 244 participants who are mostly composed of college students and recent graduates. The Rosenberg self-esteem scale, which contains 10 items was administered to measure global self-esteem. The study entails 10 selected/synthesized items from the Social Anxiety Symptom Severity Scale, and the analysis will focus on examining whether there is a considerable association between the scores on the two-questionnaires.

II. OBJECTIVES

To examine the relationship between self-esteem and social anxiety among the study participants.

Specific Objectives

1. To assess the level of self-esteem among the participants using the Rosenberg Self-Esteem Scale.
2. To assess the extent of social anxiety symptoms experienced by the participants using selected items adapted from the Social Anxiety Symptom Severity Scale.
3. To determine whether self-esteem is associated with the severity of social anxiety symptoms among the participants.

III. METHODOLOGY

Research Design

The study employed a quantitative survey design to evaluate the relationship between self-esteem and social anxiety. The survey comprised open-ended questions to gather information on the general feelings of the participants about themselves and their anxiety in social interactions.

Participants

The study had 244 participants selected through convenience sampling. The participants comprised a wide range of ages, with most respondents being between the ages of 15 and 25. Both male and female participants were present, and some respondents selected the option 'prefer not to say'.

Data Collection

The data was collected using a questionnaire. The first section comprised statements regarding self-esteem, with 10 items focusing on self-worth, confidence, personal qualities, and thoughts of failure or lack of self-confidence. The participants selected an option from a 5-point response scale that included the following: Strongly disagree, Disagree, Neither agree nor disagree, Agree, Strongly agree.

The second section comprised questions focusing on social anxiety symptoms. The 10 items were each scored on a scale of Not at all to Extremely. The questions covered topics such as attending social gatherings, speaking in public, interacting with people, interacting with authority, and fears of being criticized, rejected, or embarrassed.

Data Analysis

The data collected from the sections was scored and analyzed to establish a relationship between self-esteem and social anxiety. The scoring involved converting the Likert scale responses into scores, with higher scores indicating higher levels of self-esteem for the Rosenberg self-esteem scale and higher levels of social anxiety for the modified Rosenberg social anxiety scale. For the Rosenberg scale, negatively worded items were reversed scored. A Pearson correlation was performed to establish whether a relationship existed between self-esteem and social anxiety.

IV. RESULTS

Figure 1 - Age distribution bar graph

Figure 2- Gender distribution bar graph

Figure 3- RSES score categories (n=244)

The distribution of RSES score indicates that most participants (187) had moderate self-esteem followed by 43 participants with high and 14 participants had low self-esteem

Figure 4- SASS score categories (n=244)

The distribution of SASS score indicates that most participants (143) had moderate social anxiety followed by 80 participants with low social anxiety and 21 participants had high social anxiety.

Relationship between self-esteem and social anxiety

Chi-square Analysis-

Cross-tabulation of RSES and SASS categories

Chi-square test: $= 73.98$, $p < 0.001$; Cramér's $V = 0.39$. The null hypothesis of independence is rejected at the 5% level. The categorized self-esteem and social-anxiety scores show a statistically significant association in this sample. Pearson correlation: $r = -0.530$, $p < 0.001$. Spearman rank correlation: $\rho = -0.435$, $p < 0.001$. The negative coefficients suggest that participants that had higher self-esteem scores were more likely to have lower social-anxiety symptom scores. Due to the study's cross-sectional design, it is not possible to conclude that self-esteem causes social anxiety or otherwise.

Figure 5 - Scatter Plot

V. DISCUSSION

The present study examined the relationship between self-esteem and social anxiety. The findings showed a moderate relationship between the two variables, indicating that self-esteem is associated with social anxiety. Participants with a more positive view of themselves generally tended to report fewer symptoms of anxiety in social situations. This finding supports the study objective of examining whether self-esteem is related to social anxiety.

One possible explanation for this association is that individuals with higher self-esteem may feel more comfortable with themselves and may be less concerned about how others perceive them. In contrast, individuals with lower self-esteem may experience greater self-doubt and may worry more about making mistakes or being negatively judged in social situations. Fear of negative evaluation and negative self-perceptions are recognized as important cognitive factors associated with social anxiety (Perczel-Forintos & Kresznerits, 2017; [Author et al., 2022]).

The findings are also consistent with previous research, which has reported an association between low self-esteem and greater social anxiety. Previous studies have suggested that negative self-perceptions, low self-esteem, and fear of negative evaluation are associated with social anxiety (Cheng et al., 2015; Perczel-Forintos & Kresznerits, 2017). A longitudinal study among adolescents also found that explicit self-esteem was associated with later symptoms of social anxiety, providing support for the relevance of self-

esteem in understanding social anxiety symptoms (van Tuijl et al., 2014).

However, the relationship observed in the present study does not indicate that self-esteem is the only factor related to social anxiety. The findings showed that self-esteem explained approximately 28% of the variance in social-anxiety scores, suggesting that other factors may also contribute. These may include personality characteristics, social environment, fear of negative evaluation, previous social experiences, and coping strategies. Research has similarly shown that fear of negative evaluation, self-perception, self-esteem, and other cognitive factors can all be associated with social anxiety (Author et al., 2022). Therefore, differences between individuals may help explain why the relationship is not the same for everyone. An important finding is that social anxiety was observed across different levels of self-esteem. This suggests that individuals with higher self-esteem may still experience social anxiety and that self-esteem alone cannot fully explain the development or experience of social anxiety. Since the study used a cross-sectional design, the findings show an association between the variables but cannot establish that low self-esteem causes social anxiety. This distinction is important because although longitudinal research has found an association between earlier self-esteem and later social-anxiety symptoms, the relationship between the two variables may involve multiple psychological and environmental factors (van Tuijl et al., 2014).

The study has practical implications for understanding social anxiety. The findings suggest that developing a healthier and more positive self-perception may be relevant when supporting individuals who experience social anxiety. However, interventions should also consider other factors that may influence social anxiety rather than focusing only on self-esteem. Previous research has suggested that self-esteem and fear of negative evaluation may be relevant targets when understanding and addressing social anxiety (Cheng et al., 2015).

A strength of the study is that it directly examined the relationship between two important psychological variables using systematic measures. However, the cross-sectional nature of the study limits conclusions about cause and effect.

Other limitations may include the sample size, characteristics of the participants, and reliance on self-reported responses. Future studies could use larger and more diverse samples and longitudinal designs to examine how self-esteem and social anxiety may change over time. Longitudinal research has demonstrated the usefulness of examining self-esteem and social-anxiety symptoms across different time points (van Tuijl et al., 2014).

Overall, the findings demonstrate that self-esteem is meaningfully associated with social anxiety, while also showing that the relationship is influenced by other factors. The study therefore contributes to a better understanding of the psychological factors associated with social anxiety and highlights the importance of considering both self-perception and broader social and psychological influences.

VI. LIMITATIONS OF THE STUDY

Although this study provides useful insights into the relationship between self-esteem and social anxiety, it has some limitations. Since the study was cross-sectional, the data was collected at one point in time, so it shows an association between the variables but cannot establish a cause-and-effect relationship. The study also relied on self-report questionnaires, meaning the accuracy of the findings depended on how honestly and accurately participants reported their experiences, with a possibility of response bias or underestimation/overestimation due to the sensitive nature of the topic. The participants were selected through questionnaire-based sampling rather than random sampling, which may limit how well the findings can be generalized to people from different age groups, academic backgrounds, cultures, and social circumstances. The scores for self-esteem and social anxiety were categorized as low, moderate, and high for the purpose of the chi-square analysis, but these categories should not be considered clinical cut-offs or diagnoses. The study also did not examine other factors such as academic stress, parent-child and peer relationships, personality, or past experiences that may influence these variables. No clinical diagnosis of social anxiety disorder or any other mental health condition was made. Therefore, further research using larger and

more diverse samples and longer-term studies would be helpful to understand how self-esteem and social anxiety change over time and the direction of their relationship.

VII. CONCLUSION

This study looked at the relationship between self-esteem and social anxiety among 244 participants. The results showed that people with higher self-esteem generally had lower levels of social anxiety, with a moderate negative correlation between the two variables ($r = -0.530$, $p < 0.001$). The chi-square test also showed a significant association between self-esteem and social anxiety categories ($\chi^2(4) = 73.98$, $p < 0.001$; Cramér's $V = 0.39$). These findings are similar to previous studies that have linked low self-esteem with higher social anxiety. However, since the study was conducted at one point in time, it cannot prove that low self-esteem directly causes social anxiety. Further studies with larger and more diverse groups, conducted over a longer period, could provide a better understanding of this relationship.

REFERENCES

1. Alessandri, G., Vecchione, M., Eisenberg, N., & Laguna, M. (2015). On the factor structure of the Rosenberg (1965) General Self-Esteem Scale. *Psychological Assessment*, 27(2), 621–635. <https://doi.org/10.1037/pas0000073>
2. Amin, R., Iqbal, A., Naeem, F., & Irfan, M. (2020). Effectiveness of a culturally adapted cognitive behavioural therapy-based guided self-help intervention to reduce social anxiety and enhance self-esteem in adolescents. *Behavioural and Cognitive Psychotherapy*, 48(5), 503–514.
3. Baker, S. L., Heinrichs, N., Kim, H.-J., & Hofmann, S. G. (2002). The Liebowitz Social Anxiety Scale as a self-report instrument: A preliminary psychometric analysis. *Behaviour Research and Therapy*, 40(6), 701–715. [https://doi.org/10.1016/S0005-7967\(01\)00060-2](https://doi.org/10.1016/S0005-7967(01)00060-2)
4. Chen, B., Sun, X., Huang, X., & Yao, L. (2024). Examining the reciprocal link between social anxiety and social relationships spanning from childhood to adulthood: A meta-analysis of longitudinal studies. *Developmental Psychology*, 60(1), 170–186. <https://doi.org/10.1037/dev0001666>

5. Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment, and treatment* (pp. 69–93). Guilford Press.
6. Fredrick, J. W., & Luebke, A. M. (2024). Prospective associations between fears of negative evaluation, fears of positive evaluation, and social anxiety symptoms in adolescence. *Child Psychiatry & Human Development*, 55(1), 195–205. <https://doi.org/10.1007/s10578-022-01396-7>
7. Gregory, B., & Peters, L. (2017). Changes in the self during cognitive behavioural therapy for social anxiety disorder: A systematic review. *Clinical Psychology Review*, 52, 1–18. <https://doi.org/10.1016/j.cpr.2016.11.008>
8. Heimberg, R. G., Horner, K. J., Juster, H. R., Safren, S. A., Brown, E. J., Schneier, F. R., & Liebowitz, M. R. (1999). Psychometric properties of the Liebowitz Social Anxiety Scale. *Psychological Medicine*, 29(1), 199–212. <https://doi.org/10.1017/S0033291798007879>
9. Hofmann, S. G. (2007). Cognitive factors that maintain social anxiety disorder: A comprehensive model and its treatment implications. *Cognitive Behaviour Therapy*, 36(4), 193–209. <https://doi.org/10.1080/16506070701421313>
10. Iancu, I., Bodner, E., & Ben-Zion, I. Z. (2015). Self-esteem, dependency, self-efficacy and self-criticism in social anxiety disorder. *Comprehensive Psychiatry*, 58, 165–171. <https://doi.org/10.1016/j.comppsy.2014.11.018>
11. Masia-Warner, C., Storch, E. A., Pincus, D. B., Klein, R. G., Heimberg, R. G., & Liebowitz, M. R. (2003). The Liebowitz Social Anxiety Scale for Children and Adolescents: An initial psychometric investigation. *Journal of the American Academy of Child & Adolescent Psychiatry*, 42(9), 1076–1084. <https://doi.org/10.1097/01.CHI.0000070249.24125.89>
12. Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behaviour Research and Therapy*, 35(8), 741–756. [https://doi.org/10.1016/S0005-7967\(97\)00022-3](https://doi.org/10.1016/S0005-7967(97)00022-3)
13. Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.
14. Seema, G. B., & Kumar, G. V. (2017). Self-esteem and social anxiety in adolescent students. *Indian Journal of Positive Psychology*, 8(3), 435–438. <https://doi.org/10.15614/ijpp/v8i3/162018>
15. Spurr, J. M., & Stopa, L. (2002). Self-focused attention in social phobia and social anxiety. *Clinical Psychology Review*, 22(7), 947–975. [https://doi.org/10.1016/S0272-7358\(02\)00107-1](https://doi.org/10.1016/S0272-7358(02)00107-1)
16. Stein, M. B., & Stein, D. J. (2008). Social anxiety disorder. *The Lancet*, 371(9618), 1115–1125. [https://doi.org/10.1016/S0140-6736\(08\)60488-2](https://doi.org/10.1016/S0140-6736(08)60488-2)
17. Stoltz, S. E. M. J., Henricks, K., Cillessen, A. H. N., & Becker, E. S. (2023). The longitudinal link between popularity, likeability, fear of negative evaluation and social avoidance across adolescence. *Journal of Research on Adolescence*. <https://doi.org/10.1111/jora.12833>
18. Swee, M. B., Hudson, C. C., & Heimberg, R. G. (2021). Examining the relationship between shame and social anxiety disorder: A systematic review. *Clinical Psychology Review*, 90, 102088. <https://doi.org/10.1016/j.cpr.2021.102088>
19. van Tuijl, L. A., de Jong, P. J., Sportel, B. E., de Hullu, E., & Nauta, M. H. (2014). Implicit and explicit self-esteem and their reciprocal relationship with symptoms of depression and social anxiety: A longitudinal study in adolescents. *Journal of Behavior Therapy and Experimental Psychiatry*, 45(1), 113–121. <https://doi.org/10.1016/j.jbtep.2013.09.007>
20. Watson, D., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology*, 33(4), 448–457. <https://doi.org/10.1037/h0027806>

RSES \ SASS	Low (10-23)	Moderate (24-37)	High (38-50)	Chi square test result:	
Low (10-23)	2	7	5	=	73.98,
				p < 0.001	
Moderate (24-37)	42	129	16	=	73.98,
				p < 0.001	

High (38-50) 36 7 0 = 73.98,
p < 0.001

Correlation	Coefficient	P-value
Pearson	r = -0.530	p < 0.001
spearman	P = -0.435	p < 0.001

FIGURES



