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STRONGER YOU! ELEVATING SELF ESTEEM WITH MINDSET

Original Research

Irfana Bibi[1], Haleema Sadia Khan[2]*, Mahnoor Yaqub Khan[2], Aamina Farooq[2], Arooba Alam[2], Hamza Malik[2], Muhammad Abubakar[3]
[1]Lecturer, MPhil Psychology, University of Mianwali, Pakistan
[2]BS Scholar, Department of Psychology, University of Mianwali, Pakistan
[3]PhD Scholar, Department of Psychology, University of Sargodha, Pakistan.
Corresponding Author: Haleema Sadia Khan, BS Scholar, Department of psychology, University of Mianwali, Pakistan. haleemanasirniazi@gmail.com
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ABSTRACT

Background: Adolescence (ages 14–19) is a critical developmental phase during which individuals face significant self-esteem challenges due to academic pressures, identity struggles, and socio-economic stressors. Low self-esteem is associated with increased vulnerability to mental health disorders, including anxiety and depression, negatively impacting emotional well-being and academic performance. Psychological interventions focusing on cognitive restructuring, mindfulness, and goal setting have been shown to enhance self-worth. However, the interplay between personality traits and self-esteem interventions remains underexplored, particularly within adolescent populations.

Objective: This study aimed to evaluate the effectiveness of structured psychological interventions in enhancing self-esteem and to examine the relationship between personality traits, particularly neuroticism and agreeableness, with self-esteem among adolescents.

Methods: A pre-post experimental design was employed, involving 35 adolescents (51.43% males, 48.57% females) selected via purposive sampling. Self-esteem and personality traits were assessed using the Rosenberg Self-Esteem Scale (RSES) and the Big Five Inventory-10 (BFI-10). The intervention spanned four weeks, incorporating structured psychological techniques, including SMART goal setting, gratitude journaling, mindfulness meditation, and cognitive restructuring. Paired sample t-tests analyzed pre- and post-intervention self-esteem scores, while Pearson correlation examined associations between self-esteem and personality traits.

Results: The mean pre-intervention RSES score was 21.22 (SD = 3.07), increasing to 22.74 (SD = 4.05) post-intervention ($t = -1.5$, $p = 0.04$). A moderate negative correlation was observed between self-esteem and neuroticism ($r = -0.403$, $p < 0.05$) and agreeableness ($r = -0.345$, $p < 0.05$). Participants with high neuroticism and agreeableness demonstrated less improvement in self-esteem.

Conclusion: Structured psychological interventions effectively improved self-esteem among adolescents, highlighting the importance of early intervention. The findings emphasize the role of personality traits in moderating self-esteem enhancement, suggesting a need for tailored psychological programs. Implementing such interventions in educational settings could foster resilience and long-term mental well-being.

Keywords: adolescent psychology, cognitive restructuring, mindfulness, personality traits, self-esteem, psychological resilience, therapeutic interventions.

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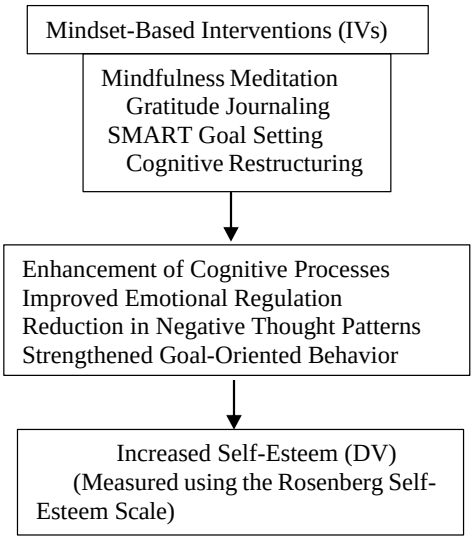
INTRODUCTION

The transition from adolescence to young adulthood, particularly between the ages of 14 to 19, is a critical developmental phase characterized by significant psychological, social, and academic challenges. During this period, individuals navigate identity formation, heightened academic pressures, and evolving social roles, which can profoundly impact their mental well-being. The World Health Organization estimates that 10% to 20% of adolescents worldwide experience mental health concerns, with self-esteem-related issues being among the most prevalent (1). In Pakistan, socioeconomic constraints, parental expectations, and academic demands often exacerbate these challenges, contributing to feelings of inadequacy and self-criticism among students (2). Research suggests that individuals with low self-esteem are more prone to anxiety and depressive symptoms, while those with higher self-esteem demonstrate greater resilience, motivation, and life satisfaction (3). Addressing these issues is essential for fostering emotional health, adaptive functioning, and overall life success (4). Self-esteem, a fundamental component of psychological well-being, reflects an individual's belief in their intrinsic worth and capabilities. It encompasses self-acceptance, self-respect, and confidence, influencing emotional regulation, interpersonal relationships, and life satisfaction (5). Low self-esteem is strongly correlated with adverse mental health outcomes, including depression and social withdrawal, whereas higher self-esteem is associated with resilience and personal growth (6). The Rosenberg Self-Esteem Scale (RSES) is widely employed to measure self-esteem due to its robust psychometric properties across diverse populations (7). Given the significant role of self-esteem in psychological well-being, understanding its determinants, including personality traits, is crucial. Personality, as defined by Costa and McCrae, consists of enduring patterns of thought, emotion, and behavior that shape an individual's interaction with their environment (8). The widely accepted Big Five Personality Traits Model (OCEAN) categorizes personality into five dimensions: conscientiousness, agreeableness, extraversion, openness, and neuroticism. These traits influence emotional regulation, self-perception, and coping mechanisms, thereby affecting self-esteem (9). Neuroticism, characterized by emotional instability and excessive worry, is negatively correlated with self-esteem, whereas extraversion and conscientiousness are linked to positive self-image and goal-oriented behavior (10).

The interplay between personality development and self-esteem is particularly pronounced during adolescence and early adulthood. This period is marked by neurobiological and psychosocial changes that contribute to personality stabilization, typically occurring between the ages of 18 and 25 (11). Although personality traits exhibit stability over time, they remain malleable to interventions that foster emotional regulation and self-improvement (12). Research indicates that specific mindset-based interventions can enhance self-esteem and positively influence personality traits. Strategies such as cognitive restructuring, mindfulness meditation, gratitude journaling, and goal setting have been found to strengthen emotional resilience, reduce negative self-perceptions, and enhance self-worth (13). Cognitive restructuring helps individuals reframe maladaptive thought patterns, while mindfulness meditation fosters emotional regulation by promoting self-awareness and acceptance (14). Gratitude journaling has been shown to enhance psychological well-being by shifting focus toward positive life experiences (15). Similarly, goal-setting techniques, particularly the SMART framework, reinforce a sense of competence and self-efficacy, thereby supporting self-esteem development (16). Theoretical models provide a framework for understanding the relationship between self-esteem, personality traits, and intervention effectiveness. Bandura's Self-Efficacy Theory emphasizes the role of personal agency in shaping motivation, behavior, and emotional regulation, suggesting that structured interventions can enhance self-efficacy and self-esteem (17). Dweck's Growth Mindset Theory further supports the notion that individuals who believe in their ability to grow through effort and learning exhibit higher resilience and self-confidence (18). Additionally, Deci and Ryan's Self-Determination Theory highlights the importance of autonomy, competence, and relatedness in fostering intrinsic motivation and self-worth (19). Cognitive Behavioral Theory (CBT) explains how negative thought patterns contribute to emotional distress and low self-esteem, reinforcing the value of cognitive restructuring techniques in intervention strategies (20). The integration of these theoretical perspectives offers a

Figure 1: ***Hypothesized model***



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comprehensive understanding of how targeted mindset-based interventions can enhance self-esteem and promote positive personality development.

Despite extensive international research on self-esteem and psychological well-being, there remains a significant gap in understanding these constructs within the socio-cultural context of Pakistan. Western literature largely emphasizes individualistic perspectives, linking self-esteem to personal achievements and autonomy (21). In contrast, collectivist societies, including Pakistan, place greater emphasis on social harmony and familial expectations, which can significantly impact self-esteem development (22). Indigenous research highlights the role of social support, academic stress, and cultural values in shaping adolescent self-esteem (23). However, existing studies often fail to integrate personality assessment with structured intervention strategies, leaving a critical research gap in understanding how targeted approaches can enhance self-esteem in Pakistani adolescents. Moreover, much of the research is concentrated in urban areas, with limited studies addressing the needs of students in rural regions, where socio-economic constraints further compound mental health challenges (24). This study aims to bridge this gap by examining the relationship between personality traits and self-esteem among Pakistani adolescents and young adults. It seeks to evaluate the effectiveness of mindset-based interventions, including mindfulness meditation, gratitude journaling, SMART goal setting, and cognitive restructuring, in enhancing self-esteem. By incorporating validated assessment tools such as the Rosenberg Self-Esteem Scale and the Big Five Personality Traits Model, the study aims to provide empirical evidence on the impact of structured interventions on self-esteem development. The findings will contribute to the growing body of research on adolescent mental health and offer practical insights for educators, psychologists, and policymakers in implementing evidence-based strategies to foster emotional resilience and psychological well-being among students (25).

METHODS

The study employed a pre-post-test experimental research design to assess the effectiveness of a psychological intervention aimed at enhancing self-esteem among adolescents in Mianwali, Punjab, Pakistan. This design facilitated the comparison of self-esteem and personality trait scores before and after the intervention within the same group, allowing for an evaluation of the intervention's impact. A purposive sampling technique was utilized to select participants who met the inclusion criteria, ensuring that only adolescents experiencing low self-esteem were included in the study. The sample comprised 213 adolescents aged 14 to 19 years, from which a subset of 35 participants (18 males and 17 females) was extracted for the intervention phase (26). Participants were required to meet specific inclusion criteria, including being within the specified age range and exhibiting self-esteem issues, with willingness to participate as a mandatory condition. Those with severe mental health conditions, individuals outside the specified age range, and university-enrolled students were excluded to maintain homogeneity in the sample. Demographic information was collected through a structured demographic sheet that gathered essential details such as name, father's name, sex, age, educational level, family system, socio-economic status, and contact information. Participants were assured of the confidentiality of their responses, which were used solely for research purposes (27).

The primary outcome variable, self-esteem, was assessed using the Rosenberg Self-Esteem Scale (RSES), a well-validated and widely used tool for measuring global self-esteem. Developed by Morris Rosenberg in 1965, this scale comprises ten statements rated on a four-point Likert scale, demonstrating strong internal consistency (Cronbach's alpha ranging from 0.77 to 0.88) and high construct validity. The scale has been extensively applied in both clinical and non-clinical populations due to its reliability in capturing self-esteem levels across diverse demographics. Personality traits were measured using the Brief Big Five Inventory-10 (BFI-10), a concise yet valid tool for assessing the five-factor personality model. This instrument, developed by Rammstedt and John, consists of ten items evaluating extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. The BFI-10 has demonstrated moderate reliability and strong construct validity, making it a suitable instrument for brief personality assessments (28). The intervention phase spanned four weeks, incorporating structured psychological techniques designed to enhance self-esteem and emotional well-being. Participants engaged in SMART goal setting, gratitude journaling, mindfulness meditation, and cognitive restructuring. The SMART goal-setting technique guided participants in formulating specific, measurable, achievable, relevant, and time-bound personal goals, fostering self-efficacy and motivation. Gratitude journaling involved daily reflective exercises aimed at shifting focus toward positive experiences, promoting an optimistic outlook. Mindfulness meditation sessions were conducted to improve self-awareness, emotional regulation, and attentional control. Cognitive restructuring techniques were employed to help participants identify and challenge negative thought patterns, replacing them with more adaptive and constructive cognitions (29).

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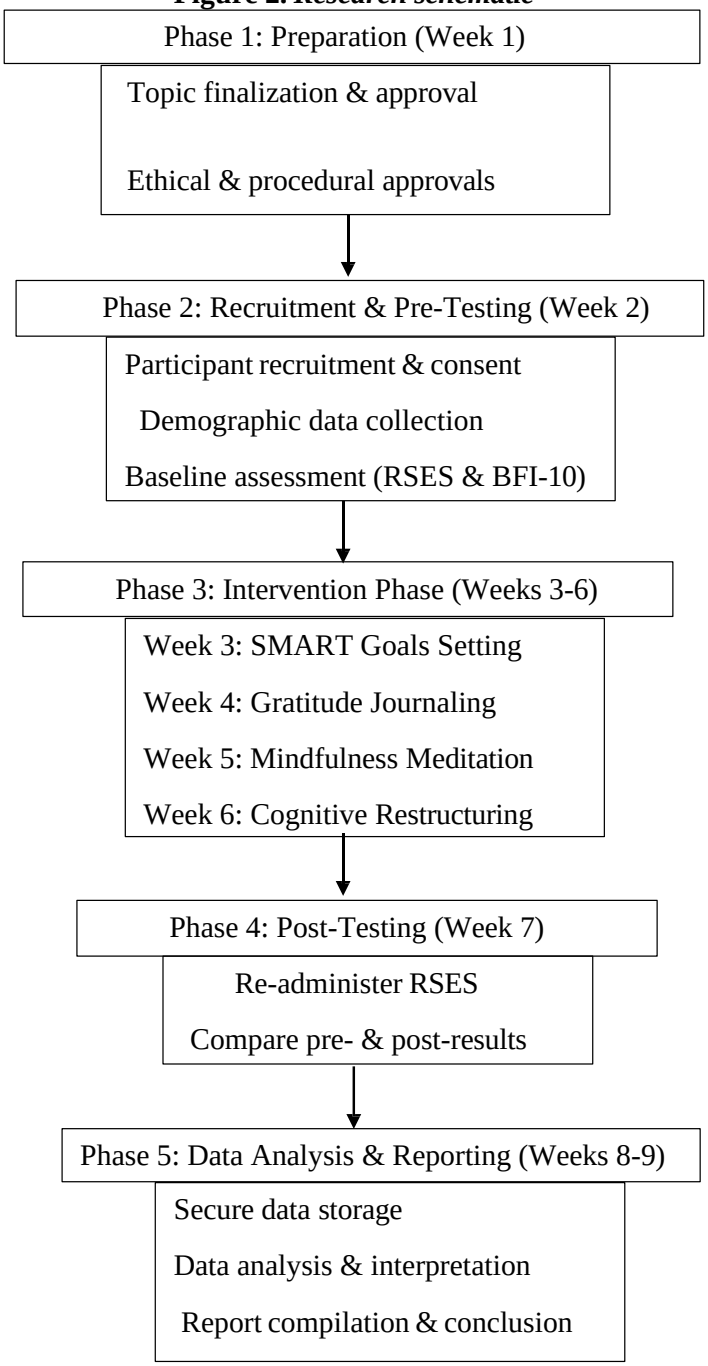
The research was executed in five distinct phases: preparation, recruitment and pre-testing, intervention, post-testing, and data analysis. The preparation phase involved the conceptualization of the study, securing ethical approval, and developing intervention protocols. Recruitment and pre-testing included participant selection, obtaining informed consent, and conducting baseline psychological assessments. The intervention phase systematically introduced psychological techniques to the participants over four weeks, ensuring their engagement and adherence. Post-testing was conducted immediately after the intervention, with self-esteem and personality assessments repeated to evaluate changes. Data analysis involved statistical evaluations to determine the intervention's effectiveness, with findings compiled into a comprehensive research report (30). The study adhered to strict ethical guidelines, ensuring compliance with institutional review board (IRB) regulations and ethical committee approvals. Written permission was obtained from relevant authorities, and informed consent was secured from all participants before data collection. Participants were fully informed of the study's objectives, confidentiality measures, and their right to withdraw at any stage without repercussions. To maintain ethical integrity, anonymity and data security were prioritized, and responses were solely used for academic purposes (31).

Figure 2: ***Research schematic***



Research Protocol with Temporal Breakdown of Research Activities

Data were analyzed using SPSS version 25.0. Descriptive statistics summarized sample characteristics and baseline self-esteem and personality trait scores. Inferential statistical methods were employed to examine differences between pre- and post-intervention scores. A paired-sample t-test was conducted to assess the effectiveness of the intervention by comparing pre- and post-test self-esteem levels. Pearson correlation analysis was used to explore the relationships between self-esteem and personality traits, particularly neuroticism and agreeableness, to determine potential associations (32). Upon review, a potential inconsistency in the sample selection process was noted. While the study claims to have used purposive sampling, the mention of sequential recruitment in the recruitment phase suggests elements of convenience sampling. Clarification is needed regarding whether participants were strictly selected based on predefined self-esteem criteria or if they were recruited based on availability. Furthermore, the mention of using graphics software such as Adobe Illustrator and Canva for study promotion appears unnecessary in a methodology section, as it does not directly contribute to data collection, measurement, or intervention implementation. Eliminating these details would enhance methodological clarity and focus on relevant procedural elements (33). The study aimed to provide empirical evidence on the effectiveness of mindset-based interventions in improving adolescent self-esteem within a Pakistani socio-cultural context. By integrating validated assessment tools and structured intervention techniques, the research sought to contribute to existing literature while offering practical insights for educators, psychologists, and mental health practitioners (34).

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RESULTS

The study evaluated the impact of psychological interventions on self-esteem among adolescents, comparing pre- and post-intervention scores. Descriptive statistics indicated a balanced gender distribution within the sample, comprising 51.43% males and 48.57% females. The age distribution showed that 57.85% of participants were between 14 and 16 years, while 42.85% fell within the 17 to 19-year range. Educationally, 57.85% were enrolled in the matriculation program, and 42.85% were in FSC. A majority (71.42%) belonged to a nuclear family system, whereas 28.57% were from joint families. Reliability analysis confirmed the internal consistency of the scales used. The Rosenberg Self-Esteem Scale (RSES) exhibited a Cronbach's alpha of 0.64, with a mean score of 21.74 and a standard deviation of 4.9. The Big Five Inventory-10 (BFI-10) demonstrated moderate reliability, with a Cronbach's alpha of 0.44, a mean score of 33.57, and a standard deviation of 5.8. The paired sample t-test revealed a significant increase in self-esteem following the intervention. The mean pre-intervention RSES score was 21.22 (SD = 3.07), which increased to 22.74 (SD = 4.05) post-intervention. The obtained t-value was -1.5, with a p-value of 0.04, indicating statistical significance ($p < 0.05$). These findings confirmed that the interventions, including mindfulness meditation, gratitude journaling, SMART goal setting, and cognitive restructuring, significantly improved self-esteem.

Pearson correlation analysis assessed the relationship between self-esteem and personality traits, particularly agreeableness and neuroticism. A moderate negative correlation was found between self-esteem and agreeableness ($r = -0.345$, $p < 0.05$), indicating that higher agreeableness was associated with lower self-esteem. Similarly, a significant negative correlation was observed between self-esteem and neuroticism ($r = -0.403$, $p < 0.05$), suggesting that increased neuroticism was linked to lower self-esteem. The correlation between agreeableness and neuroticism was weak and non-significant ($r = 0.071$, $p > 0.05$). Further analysis identified a subset of participants whose self-esteem did not improve despite undergoing interventions. These individuals exhibited high scores in agreeableness and neuroticism, suggesting a strong influence of personality traits on intervention efficacy. Some participants had unchanged self-esteem scores, with pre-intervention and post-intervention RSES scores remaining at 24, 25, or 23. Their agreeableness scores ranged between 6/10 and 10/10, and neuroticism scores varied from 3/10 to 9/10. Given the limited impact of short-term interventions on these individuals, it is recommended that they receive extended therapeutic sessions to address personality-driven barriers to self-esteem improvement. The findings confirmed that mindfulness meditation, gratitude journaling, SMART goal setting, and cognitive restructuring significantly enhanced self-esteem. Additionally, the negative relationship between self-esteem and personality traits such as agreeableness and neuroticism suggested that targeted interventions should consider personality profiles for optimal effectiveness.

Table 1: Frequencies and percentage of the demographic characteristics of the sample (N=35)

Variables	Categories	F	%
Gender	Male	18	51.43
	Female	17	48.57
Age	14-16	20	57.85
	17-19	15	42.85
Education level	Matric	20	57.85
	Fsc	15	42.85
Family System	Nuclear	25	71.42
	Joint	10	28.57

Note. F =Frequencies, %= Percentage

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Table 2: Reliability of the Scales; Psychometric properties of RSES and BFI-10

Scales	Items	M	SD	α
RSES	10	21.74	4.9	0.64
BFI-10	10	33.57	5.8	0.44

Note: RSES= Rosenberg Self Esteem Scale, BFI-10= The Big Five Inventory-10.

Table 3: Paired sample t-test depicting mean differences in pre-intervention and post-intervention (N=35)

Measures	M	SD	t	p
Pre-RSE	21.22	3.07	-1.5	0.04
Post-RSE	22.74	4.05	-1.5	0.04

Note. p<0.05, M=mean, SD= standard Deviation, p= significant value.

Table 4: Correlation

Pearson Product (N=35)	Moment Correlation between		Self Esteem, Agreeableness and Neuroticism
Variables	1	2	3
RSE	_	-.345*	-.403*
Agreeableness	_	_	.071
Neuroticism			

Note: p<0.05, RSES= Rosenberg Self Esteem Scale.

Table 5: Pre RSE, Post RSE, Neuroticism, Agreeableness scores

Variables	1	2	3	4	5
Pre RSE	24	25	23	25	23
Post RSE	24	22	24	23	24
Agreeableness	7/10	9/10	10/10	7/10	6/10
Neuroticism	9/10	3/10	5/10	7/10	9/10

Note: pre RSE= before intervention, post RSE= after intervention.

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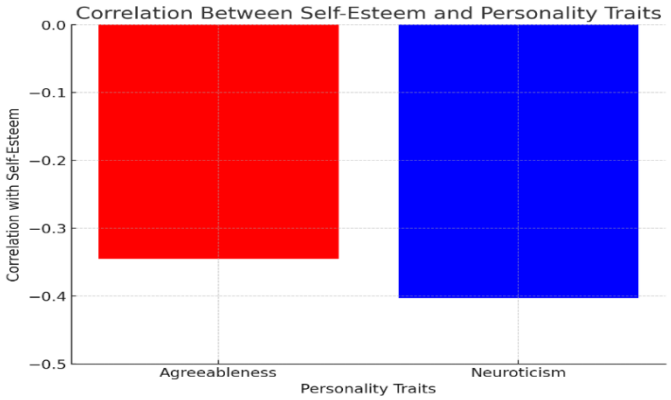

Figure 1 Correlation Between Self-Esteem and Personality Traits

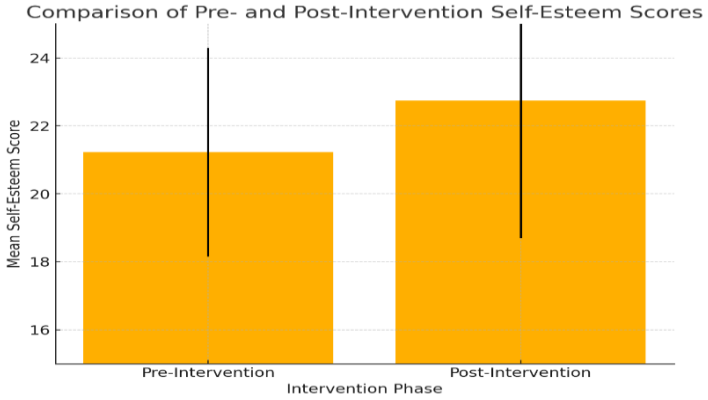

Figure 2 Comparison of Pre and Post intervention Self Esteem Scores

DISCUSSION

Self-esteem is a fundamental psychological construct that plays a crucial role in shaping an individual's emotional well-being, cognitive processes, and social interactions. Adolescence is a critical developmental stage during which individuals form beliefs about their self-worth based on experiences, interactions, and perceived successes or failures. Low self-esteem during this phase has been widely associated with adverse psychological outcomes, including anxiety, depression, poor academic performance, and difficulties in forming healthy interpersonal relationships. Given the increasing prevalence of mental health concerns among adolescents, particularly in academic settings, structured psychological interventions are essential to fostering self-esteem and resilience. The present study examined the effectiveness of targeted interventions, including mindfulness meditation, gratitude journaling, SMART goal setting, and cognitive restructuring, in enhancing self-esteem among adolescents (19,35). The results indicated a significant improvement in self-esteem scores following the intervention, confirming the efficacy of structured psychological techniques. Mindfulness meditation contributed to enhanced self-awareness, emotional regulation, and cognitive flexibility, aligning with previous research demonstrating its role in reducing self-critical thoughts and fostering a more positive self-image. Gratitude journaling was also found to significantly enhance self-esteem by shifting focus from deficiencies to personal strengths and positive experiences. These findings are consistent with self-determination theory, which postulates that fostering intrinsic motivation and positive emotions contributes to a more stable and healthier self-concept. The effectiveness of SMART goal setting in improving self-esteem was supported, as participants who engaged in goal-directed behavior exhibited higher self-efficacy and a stronger belief in their abilities. This is in line with goal-setting theories suggesting that clearly defined, attainable objectives promote motivation and self-worth. Similarly, cognitive restructuring proved to be a valuable intervention, reinforcing the fundamental principle of cognitive-behavioral therapy that modifying maladaptive thought patterns contributes to a healthier self-perception (11,36).

The study further explored the relationship between self-esteem and personality traits, particularly agreeableness and neuroticism. A moderate negative correlation was observed between self-esteem and both personality traits, suggesting that individuals exhibiting higher levels of agreeableness and neuroticism were more prone to lower self-esteem. This finding aligns with established literature indicating that individuals high in neuroticism experience increased self-doubt and emotional instability, which impede the development of a positive self-image. Similarly, highly agreeable individuals, who often prioritize harmony and social approval, may struggle with assertiveness and self-confidence, making them susceptible to lower self-esteem. These insights highlight the moderating role of personality traits in self-esteem enhancement and emphasize the need for personalized interventions that account for individual personality differences (7,37). Despite the promising findings, the study had several limitations. The small sample size limited the generalizability of the results to a broader population. The short duration of the intervention may not have been sufficient to produce long-term changes in self-esteem, raising the need for longitudinal studies to assess sustained effects. The reliance on self-report measures introduced the possibility of social desirability bias, as participants may have provided responses they perceived as favorable rather than reflective of their true experiences. Moreover, while improvements in self-esteem were observed across most participants, a subset of individuals with high agreeableness and neuroticism demonstrated limited change, suggesting that standard interventions may not be equally effective for all personality profiles (15,38).

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Future research should consider several improvements to enhance the applicability and robustness of findings. Expanding the sample size and including a more diverse participant pool would improve generalizability. Longitudinal studies assessing the persistence of self-esteem improvements over extended periods would provide deeper insights into the long-term effectiveness of psychological interventions. Personalized therapeutic approaches tailored to individuals with specific personality traits, particularly those with high neuroticism and agreeableness, could improve intervention outcomes. Furthermore, incorporating objective behavioral measures alongside self-report assessments would strengthen the reliability of the findings and reduce potential bias (20,32). The implications of this study extend across multiple domains, including education, clinical psychology, and policy development. Integrating structured self-esteem interventions into school curricula could enhance students' psychological resilience and overall well-being. Mental health practitioners could incorporate these interventions into therapeutic programs to support adolescents struggling with self-esteem issues. At a broader level, policymakers should consider implementing large-scale mental health initiatives that include evidence-based self-esteem enhancement strategies to promote adolescent mental well-being (27,30).

The findings contribute to the growing body of research on self-esteem interventions and positive psychology, reaffirming the effectiveness of mindfulness, gratitude, goal setting, and cognitive restructuring in fostering psychological well-being. Additionally, the study underscores the importance of considering personality traits in intervention designs to ensure targeted and individualized approaches. By addressing these factors, future research and practical applications can better support adolescent mental health and contribute to the development of holistic psychological support systems (21).

CONCLUSION

The findings of this study highlight the effectiveness of structured psychological interventions, including SMART goal setting, gratitude journaling, mindfulness meditation, and cognitive restructuring, in enhancing self-esteem among adolescents. The results underscore the importance of addressing self-esteem issues at an early stage, as improved self-worth contributes to greater resilience, psychological well-being, and overall life satisfaction. The observed inverse relationship between neuroticism and self-esteem suggests that personality traits play a moderating role in intervention outcomes, reinforcing the need for personalized approaches. While the interventions were generally beneficial, their varying impact on individuals indicates that self-esteem enhancement programs should be tailored to account for personality differences. Moving forward, incorporating larger sample sizes, longitudinal research designs, and objective assessment measures would strengthen the evidence base and support the development of more targeted interventions. Strengthening self-esteem during adolescence has the potential to foster emotional stability, improve social and academic functioning, and promote long-term mental well-being.

AUTHOR CONTRIBUTIONS

Author	Contribution
Irfana Bibi	Substantial Contribution to study design, analysis, acquisition of Data Manuscript Writing Has given Final Approval of the version to be published
Haleema Sadia Khan*	Substantial Contribution to study design, acquisition and interpretation of Data Critical Review and Manuscript Writing Has given Final Approval of the version to be published
Mahnoor Yaqub Khan	Substantial Contribution to acquisition and interpretation of Data Has given Final Approval of the version to be published
Aamina Farooq	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Arooba Alam	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Hamza Malik	Substantial Contribution to study design and Data Analysis Has given Final Approval of the version to be published
Muhammad Abubakar	Contributed to study concept and Data collection Has given Final Approval of the version to be published

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