Prediction of Suicidal Ideation Based on Resilience, Self-Compassion, and Attachment Styles in Adolescent Girls

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ABSTRACT

Objective: The objective of this study was to predict suicidal ideation in adolescent girls based on resilience, self-compassion, and attachment styles.

Methods and Materials: This descriptive–correlational study was conducted among adolescent girls attending public lower-secondary schools in District 16 of Tehran during the 2023–2024 academic year. A total of 239 participants who reported suicidal thoughts in psychological screening were selected through convenience sampling. Data were collected using the Multi-Attitude Suicide Tendency Scale (MAST), the Connor–Davidson Resilience Scale (CD-RISC), the Self-Compassion Scale–Short Form (SCS-SF), and the Revised Adult Attachment Scale (RAAS). Pearson correlation and simultaneous multiple linear regression analyses were performed using SPSS version 26 to examine associations and predictive relationships among the study variables.

Findings: Correlation analysis showed that resilience ($r = -.36$), self-compassion ($r = -.14$), and secure attachment ($r = -.19$) were significantly and negatively associated with suicidal ideation, while avoidant ($r = .32$) and ambivalent/anxious attachment styles ($r = .19$) exhibited significant positive correlations ($p < .05$). Regression analysis revealed that the overall model significantly predicted suicidal ideation ($F(5,232) = 12.56$, $p = .001$), explaining 21% of the variance ($R^2 = .21$). Among the predictors, resilience ($\beta = -.28$, $p = .001$) and avoidant attachment ($\beta = .24$, $p = .001$) were significant predictors, whereas self-compassion, secure attachment, and ambivalent/anxious attachment were not significant predictors.

Conclusion: The findings indicate that resilience and avoidant attachment style play significant roles in predicting suicidal ideation among adolescent girls, underscoring the importance of enhancing adaptive coping resources and addressing maladaptive attachment patterns in suicide prevention efforts targeting this population.

Keywords: Resilience, suicide ideation, self-compassion, attachment styles, adolescent girls.

1. Introduction

Suicide among adolescents has become a major global mental health concern, with recent epidemiological evidence illustrating a sharp rise in suicidal thoughts, self-harm behaviors, and completed suicide across diverse cultural contexts. Reports from the Centers for Disease Control and Prevention show that nearly one in three American adolescent girls experienced suicidal ideation in 2021, highlighting the seriousness of the crisis (Mahase, 2023). Psychological research consistently demonstrates that adolescence is a developmental period marked by emotional instability, heightened vulnerability to stress, and increased sensitivity to interpersonal dynamics, all of which can influence self-harming and suicidal tendencies (Imonova, 2023). The complex interplay between cognitive, emotional, and interpersonal mechanisms during adolescence underscores the importance of identifying protective and risk factors that can help explain variations in suicidal ideation.

Resilience has been recognized as one of the central protective factors that buffer adolescents against emotional distress and suicidal thoughts. Conceptually, resilience reflects a person's ability to adapt to adversity, maintain psychological stability, and recover from stressful experiences, as emphasized by foundational work on resilience measurement (Connor & Davidson, 2003). Recent conceptual analyses further clarify resilience as a multidimensional construct encompassing emotional, cognitive, and social components that jointly contribute to suicide prevention (Wang et al., 2022). Empirical findings consistently indicate that adolescents with higher resilience show significantly fewer suicidal thoughts and greater capacity for coping with negative life events (Asadi et al., 2022). Research on psychological resilience among adolescents with suicidal ideation demonstrates marked deficits in problem-solving and emotion regulation, suggesting that compromised resilience may serve as a precursor to suicidal behaviors (Xu et al., 2023). At the same time, studies of resilience within family systems reveal that family resilience contributes strongly to protecting adolescents from self-harm and non-suicidal self-injury through pathways such as mindfulness and individual resilience (Yuan et al., 2025). Animal studies also confirm that resilience to social and emotional stress during adolescence, especially in females, plays a crucial role in behavioral adaptation and emotional health (Pantoja-Urbán et al., 2024). Altogether, the literature suggests that resilience operates as a powerful shield against the emergence of suicidal thoughts during early and middle adolescence.

Another psychological factor increasingly recognized for its relevance to adolescents' mental health is self-compassion. Defined as a self-attitude marked by kindness toward oneself, recognition of shared human experiences, and mindful awareness of suffering, self-compassion is conceptualized as a key emotional resource for navigating distress (Neff, 2003). Research consistently shows that higher self-compassion is strongly associated with lower levels of psychological distress, depression, and suicidal thoughts (Suh & Jeong, 2021). Self-compassion appears to mitigate the emotional impact of stress by fostering nonjudgmental acceptance and emotional balance, thereby reducing vulnerability to extreme responses such as self-harm. Studies among adolescents reveal that self-compassion moderates the relationship between emotion regulation and mental health outcomes, underlining its role as a protective emotional factor (Nguyen et al., 2025). Similarly, findings in adult and emerging adult populations demonstrate that self-compassion enhances relational functioning and psychological security, suggesting mechanisms through which it may buffer against desperation, isolation, and suicidal ideation (Williams & Baptist, 2023). Evidence from Iranian research also highlights the psychometric robustness and clinical relevance of compassion-based scales, underscoring their value for understanding emotional functioning in high-risk groups (Shahbazi et al., 2015). Within clinical contexts, self-compassion has been proposed as a central component of suicide prevention strategies targeting young people (Patra, 2025). Studies examining structural models further demonstrate strong inverse relationships between self-compassion and suicidal tendencies among female students, reinforcing its importance as a potential protective factor (Moslahi et al., 2023). Collectively, these findings highlight self-compassion as an emotionally restorative resource capable of reducing self-harming cognitions.

In addition to resilience and self-compassion, attachment theory provides crucial insight into the relational and developmental foundations of suicidal ideation. Classical attachment theory proposes that early caregiver relationships shape internal working models of the self and others, which in turn influence emotional regulation and interpersonal functioning across the lifespan (Hazan & Shaver, 1987). Secure attachment is typically associated with emotional stability, greater resilience, and adaptive coping strategies.

In contrast, insecure attachment styles—particularly avoidant and anxious/ambivalent styles—have been linked consistently to higher psychological distress, impaired emotional regulation, and elevated risk for suicidal behaviors (Silva Filho et al., 2023). Studies conducted among military populations show that attachment style prospectively predicts suicide attempts, indicating the pervasive influence of attachment patterns even in adulthood (Naifeh et al., 2024). Similarly, research during adolescence demonstrates that insecure attachment may heighten vulnerability to suicidal thoughts by undermining emotional stability and diminishing interpersonal trust (Moshtaghi & Hashemi-Pour, 2024). Controlled studies of students also reveal significant associations between insecure attachment styles and interpersonal difficulties, further supporting the relevance of attachment dimensions in shaping mental health outcomes (Farhadi et al., 2020). Moreover, the mediating role of emotional regulation strategies in the association between insecure attachment and suicidal tendencies has been validated in structural equation modeling studies, underscoring the indirect pathways through which attachment insecurity amplifies suicidal risk (Golmahr et al., 2023). In addition, cross-cultural research identifies adult attachment styles as mediators linking early trauma to suicidal behaviors, providing compelling evidence of long-term developmental pathways (Szeifert et al., 2025). These findings underline the importance of exploring attachment styles as essential predictors of adolescents' vulnerability to suicidal ideation.

Suicide research also highlights the importance of evaluating individual, relational, and contextual factors simultaneously. National-level longitudinal studies find gender-specific patterns of risk and resilience for suicidal thoughts and behaviors, emphasizing the need for targeted prevention strategies among adolescent girls (Denneson et al., 2024). The increasing availability of computational and digital assessment tools has also contributed to identifying high-risk adolescents, with recent advancements in speech and behavior detection technologies showing promise in suicide risk classification (Wu et al., 2025). Findings from randomized feasibility trials suggest that youth-focused intervention models emphasizing emotional safety and relational support can substantially reduce suicide risk(Karemyr et al., 2025). At the same time, comparative clinical studies reveal important distinctions between adolescents with and without a history of suicide attempts, particularly in psychological disorders and resilience capacity (Asadi et al., 2022). In the Iranian context, research demonstrates that culture-based psychotherapies and cognitive-behavioral therapies differentially influence depression and suicidal thoughts among adolescent girls, further supporting the need for multidimensional preventative frameworks (Azimi et al., 2022). Additional studies examining cognitive emotion regulation strategies show that these factors mediate associations between personality organization, attachment, and suicidal tendencies in adolescents, reinforcing the importance of integrating cognitive-emotional elements into predictive models (Ahmadi Marvili et al., 2019).

Importantly, studies focusing on adolescents from vulnerable family structures highlight that environmental stressors such as parental conflict or divorce can exacerbate internalizing problems, particularly among youth with certain personality or temperament typologies (Lan & Mastrotheodoros, 2024). Cultural findings from Iranian and international samples further show that adolescents reporting suicidal ideation experience significant difficulties in emotion regulation and interpersonal functioning (Moslahi et al., 2023; Xu et al., 2023). Moreover, research using large-scale behavioral datasets identifies psychological resilience and problem-solving deficits as significant distinguishing features of adolescents with suicidal ideation (Xu et al., 2023). Structural models developed in different populations—including female students, soldiers, and school-aged children—consistently validate attachment insecurity, emotional dysregulation, and low resilience as key predictors of suicidal thoughts and behaviors (Golmahr et al., 2023; Naifeh et al., 2024; Silva Filho et al., 2023). Complementing these findings, public health research shows significant year-to-year increases in suicidal ideation among adolescent girls, illustrating the urgency of continued scientific investigation (Mahase, 2023).

Additionally, emerging evidence suggests that emotion regulation abilities, interpersonal cognition, and contextual resilience jointly influence adolescents' susceptibility to suicidal behaviors. Findings from recent global studies also highlight culturally specific manifestations of suicidal ideation, suggesting the necessity of localized research to tailor preventative interventions (Imonova, 2023; Wang et al., 2022). Considering the cultural and developmental uniqueness of adolescents, particularly adolescent girls, understanding how resilience, self-compassion, and attachment styles contribute to suicidal ideation is of substantial clinical and theoretical significance.

Given the documented associations among suicidal ideation, insecure attachment styles, diminished resilience, and lower self-compassion, as well as the need for culturally specific investigations within Iranian adolescent populations, a comprehensive model examining these psychological determinants is essential. Therefore, the aim of this study is to predict suicidal ideation in adolescent girls based on resilience, self-compassion, and attachment styles.

2. Methods and Materials

2.1. Study Design and Participants

The research method employed in the present study was descriptive–correlational. The statistical population consisted of adolescent girls studying in public lower secondary schools (first-level secondary education) in District 16 of Tehran during the 2023–2024 academic year. Adolescents who, based on psychological screening tests, reported suicidal thoughts and self-harming behaviors, and who had received an initial diagnosis from psychologists at the counseling centers of the Department of Education and a final diagnosis of suicidal ideation from a psychiatrist, were included. Additionally, for verification, the Suicide Tendency Scale was distributed online among the students, and scores above the mean (greater than 90) were considered as belonging to the target population. The approximate number reported was 550 cases.

For sample selection, convenience sampling was applied. Based on Krejcie and Morgan's table and considering the population size, 225 individuals were selected; however, due to potential sample attrition, 250 questionnaires were distributed. After collecting the returned questionnaires and accounting for attrition, the final sample size was reduced to 239 participants. Inclusion criteria consisted of informed consent to participate in the study, absence of severe physical illness (according to participants' self-report), and a minimum score of 65 on the Multi-Attitude Suicide Tendency Scale (MAST; Orbach et al., 1981). Exclusion criteria included failure to complete the questionnaire within the specified time frame and delayed submission of the questionnaire.

The research procedure was such that the questionnaires were organized in a structured and predetermined order and then administered to the participants. Before completing the questionnaires, the procedure was fully explained to the participants, and they were assured that all collected information would remain strictly confidential and no identifying information would be recorded. Therefore, the study was conducted with full respect for participants' privacy and confidentiality, and informed consent was obtained from all individuals. All stages of the research were conducted under the supervision of the university ethics committee, and every effort was made to prevent any physical or psychological harm to participants. The results were shared solely for scientific purposes without disclosing participants' identities.

2.2. Measures

The Multi-Attitude Suicide Tendency Scale was developed by Orbach et al. (1991) and consists of 30 items designed to assess suicide tendency in adolescents. The scoring system is based on a 5-point Likert scale (from strongly disagree = 1 to strongly agree = 5). The minimum possible score is 30 and the maximum score is 150. Scores between 30 and 60 indicate low suicide tendency, scores between 60 and 90 indicate moderate suicide tendency, and scores above 90 reflect high suicide tendency. In the study by Orbach et al. (1981), the reliability of this scale, measured using Cronbach's alpha, ranged from .76 (for Life Repulsion and Attraction to Death) to .83 (for Attraction to Life and Death Repulsion). In the study by Azimi et al. (2022), the reliability of the scale for the total questionnaire was reported as .71, and correlations between the total score and the subscales Attraction to Life, Life Repulsion, Attraction to Death, and Death Repulsion were .80, .63, .75, and .87, respectively. In the present study, reliability was calculated using Cronbach's alpha and was found to be .75.

Connor–Davidson Resilience Scale (CD-RISC) was developed by Connor and Davidson (2003) and contains 25 items. Scoring is based on a 5-point Likert scale (from never = 0 to always = 4). The minimum score is 0 and the maximum score is 100. Connor and Davidson (2003) reported a Cronbach's alpha of .89 for the scale and a test–retest reliability coefficient of .87 over a 4-week interval. Convergent validity with the Multidimensional Scale of Perceived Social Support was reported as .44, and internal consistency reliability using Cronbach's alpha was .89. The scale was translated and validated in Iran by Bakhshayesh Eghbali et al. (2022), confirming its factor structure with 25 items across five subscales, all with factor loadings above .30. Internal consistency reliability using Cronbach's alpha was .94. In the study by Keyhani et al. (2014), criterion validity with the self-efficacy questionnaire was reported as .29, supporting convergent validity. In the present study, internal consistency using Cronbach's alpha was .78.

Self-Compassion Scale – Short Form (SCS-SF) was developed by Neff (2003) and includes 12 items representing six components: Self-Kindness (Items 2, 6), Self-Judgment (Items 11, 12), Common Humanity (Items 5, 10), Isolation (Items 4, 8), Mindfulness (Items 3, 7), and Over-Identification (Items 1, 9). Scoring is based on a 5-point Likert scale (from almost never = 1 to almost always = 5). Items 1, 4, 8, 9, 11, and 12 are reverse-scored. Neff (2003) reported Cronbach's alpha of .92 for the total scale; internal consistency for the subscales ranged from .75 to .81. Test–retest reliability over a two-week interval was .93, and the correlation with general health was reported as .45. In the study by Shahbazi et al. (2015), Cronbach's alpha for the total scale was reported as .91, and subscale alphas for Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-Identification were .83, .87, .91, .88, .92, and .77, respectively. In the present study, Cronbach's alpha for this scale was .75.

Revised Adult Attachment Scale (RAAS) was developed by Collins and Read (1990) and originally consisted of 21 items; the commonly used version includes 18 items. The scale includes three subscales: Secure Attachment (Items 1, 6, 8, 12, 13, 17), Avoidant Attachment (Items 2, 5, 14, 6, 7, 18), and Ambivalent/Anxious Attachment (Items 3, 4, 9, 10, 11, 15). It is scored on a 5-point Likert scale (from not at all characteristic of me = 1 to very characteristic of me = 5). Items 5, 6, 8, 16, 17, and 18 are reverse-scored. Collins and Read (1990) reported Cronbach's alpha of .80 for the scale and alphas of .78, .85, and .85 for Secure, Avoidant, and Ambivalent/Anxious attachment, respectively. Divergent and convergent validity using the Texas Social Behavior Inventory was reported as .29 for Secure, –.22 for Avoidant, and –.30 for Ambivalent/Anxious attachment. Test–retest reliability over a one-month interval was .52 for Avoidant, .68 for Secure, and .71 for Ambivalent/Anxious attachment. In Iran, Farhadi et al. (2020) reported Cronbach's alpha of .72 for the total scale; confirmatory factor analysis showed acceptable fit indices (normed chi-square = 3.45, RMSEA = .041, CFI = .095, GFI and NFI = .94). Test–retest reliability over a 10-day interval in a 20-person sample yielded a correlation of .76. Cronbach's alpha for Secure, Avoidant, and Ambivalent/Anxious attachment was reported as .72, .82, and .75, respectively. In the present study, reliability coefficients for these subscales were .74, .80, and .71.

2.3. Data Analysis

After receiving the completed questionnaires, data were analyzed using Pearson correlation and simultaneous multiple linear regression with SPSS version 26.

3. Findings and Results

Among the participants in the study, 92 students were enrolled in the seventh grade (equivalent to 38.5%), 71 students in the eighth grade (equivalent to 29.7%), and 76 students in the ninth grade (equivalent to 31.8%). Table 1 presents the correlation matrix, means, and standard deviations of the research variables.

Table 1

Correlation Matrix, Means, Standard Deviations, Skewness, and Kurtosis of Research Variables

Variables	1	2	3	4	5	6
1. Suicide Ideation	1					
2. Resilience	–.36**	1				
3. Self-Compassion	–.14*	.35**	1			
4. Secure Attachment	–.19**	.14*	.34**	1		
5. Avoidant Attachment	.32**	–.24**	–.42**	–.44**	1	
6. Ambivalent/Anxious Attachment	.19**	–.24**	–.33**	–.36**	.44*	1
Means	83.79	78.69	38.01	14.42	11.85	17.02
Standard Deviations	8.84	14.84	5.38	4.36	4.70	5.17
Skewness	.15	.16	.16	.18	.07	–.08
Kurtosis	–.73	–1.86	–.57	–.68	.15	–.75

Based on the results presented in Table 1, the Pearson correlation coefficients between resilience, self-compassion, and secure attachment and suicide ideation were –.36, –.14, and –.19, respectively, indicating significant negative relationships. Conversely, the correlations between avoidant and ambivalent/anxious attachment styles and suicide ideation were .32 and .19, respectively, indicating significant positive relationships (p < .05). Table 1 shows that none of the skewness or kurtosis values exceed ±2; therefore, the distribution of the study data was normal.

To examine the role of resilience, self-compassion, and attachment styles in predicting suicide ideation, simultaneous multiple regression analysis was applied. The variance inflation factor (VIF) for all independent variables was less than 10 and within the acceptable range (resilience = 4.7; self-compassion = 5.65; secure attachment = 6.64; avoidant attachment = 5.54; ambivalent/anxious attachment = 4.75). The tolerance values for all independent variables were above zero and close to one, also indicating acceptable levels (resilience = .38; self-compassion = .45; secure attachment = .34; avoidant attachment = .38; ambivalent/anxious attachment = .45). The Durbin–Watson statistic was 1.61, which falls within the acceptable range of 1.5 to 2.5; therefore, the assumption of independence of errors was met. The results of the analysis of variance are presented in Table 2.

Table 2

Summary of ANOVA for Research Variables

Predictor Variables	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Resilience, Self-Compassion, and Attachment Styles	Regression	3961.48	5	792.29	12.56	.001
	Residual	14634.26	232	63.07		
	Total	18595.74	237			

According to Table 2, the significance of the calculated F statistic indicates that suicide ideation can be predicted by resilience, self-compassion, and attachment styles. The regression model summary is reported in Table 3.

Table 3

Model Summary

R	R²	ΔR²	SE	Durbin–Watson
.46	.21	.19	7.94	1.61

As shown in Table 3, resilience, self-compassion, and attachment styles together accounted for .21 of the variance in suicide ideation (p < .05). To determine which variables were the strongest predictors, a multiple regression analysis was conducted. The results are provided in Table 4.

Table 4

Regression Results for Predicting Suicide Ideation Based on Resilience, Self-Compassion, and Attachment Styles

Predictor Variables	B	SE	Beta	t	Sig.
Constant	89.39	5.01	–	17.87	.001
Resilience	−.16	.03	−.28	−4.27	.001
Self-Compassion	−.04	.10	−.02	−.40	.68
Secure Attachment	−.28	.15	−.14	−1.85	.06
Avoidant Attachment	.46	.11	.24	4.09	.001
Ambivalent/Anxious Attachment	−.02	.13	−.01	−.21	.83

As shown in Table 4, standardized beta coefficients were used to determine the unique contribution of each predictor in explaining variance in suicide ideation. The results indicate that resilience (β = −.28) and avoidant attachment (β = .24) significantly predicted suicide ideation. In this prediction model, self-compassion, secure attachment, and ambivalent/anxious attachment did not have significant predictive roles. Among the predictors, avoidant attachment had the strongest effect.

4. Discussion

The findings of the present study indicate that resilience and avoidant attachment style are significant predictors of suicidal ideation in adolescent girls, whereas self-compassion, secure attachment, and ambivalent/anxious attachment styles did not significantly contribute to the prediction when examined simultaneously. The negative association between resilience and suicidal ideation aligns

with extensive evidence emphasizing the protective role of resilience in safeguarding adolescents against emotional distress and self-harming thoughts. Resilience has been conceptualized as a key psychological resource that enhances adaptability, emotional stability, and problem-solving abilities when encountering adversity (Connor & Davidson, 2003). Consistent with the results of the present study, multiple empirical findings reveal that deficits in resilience are strongly associated with psychological vulnerability among adolescents who experience suicidal ideation (Xu et al., 2023). The multidimensional nature of resilience, which incorporates cognitive flexibility, emotion regulation, and environmental support, has been shown to buffer against the development of suicidal tendencies, thereby reinforcing the current findings (Wang et al., 2022). Furthermore, research on family and individual resilience suggests that adolescents within supportive relational systems tend to exhibit lower levels of self-harm and suicidal behaviors, partly due to increased mindfulness and regulation capacities (Yuan et al., 2025). Taken together, the present results confirm that resilience serves as a protective factor that counteracts the psychological processes contributing to suicidal ideation.

In contrast, avoidant attachment emerged as a significant positive predictor of suicidal ideation, indicating that adolescents who maintain emotional distance, suppress dependency needs, and avoid closeness may be more vulnerable to suicidal thinking. Attachment theory posits that early caregiving experiences shape internal models of emotion regulation and interpersonal trust, influencing later psychological functioning (Hazan & Shaver, 1987). Prior research supports the notion that insecure attachment styles, particularly avoidant attachment, contribute to emotional dysregulation and interpersonal disconnection, both of which heighten vulnerability to suicidal behavior. Studies among female students demonstrate that insecure attachment can directly predict suicidal tendencies, often through mediating mechanisms such as interpersonal cognitive distortions and maladaptive emotion regulation (Golmahr et al., 2023). Additional findings from large-scale cohort studies highlight that insecure attachment during adolescence is associated with both self-harm and suicidal behaviors, further validating the current study's results (Silva Filho et al., 2023). Data from studies of U.S. veterans and active-duty soldiers show that avoidant and anxious attachment styles are prospectively associated with suicide attempts, demonstrating the long-term influence of attachment vulnerabilities on suicidal behaviors across

diverse populations (Naifeh et al., 2024). These converging findings indicate that attachment insecurity creates interpersonal and emotional structures that predispose individuals to greater psychological suffering and suicidal ideation.

Although ambivalent/anxious attachment was significantly correlated with suicidal ideation, it did not significantly predict suicidal ideation in the regression model. This may be due to shared variance among attachment dimensions or overlapping emotional characteristics with resilience and self-compassion. Prior research has shown that anxious attachment is linked to rumination, emotional reactivity, and fear of abandonment, which can predispose adolescents to crises of self-worth and suicidal thinking (Szeifert et al., 2025). However, it is also possible that the variance shared between attachment styles in the present study reduced the unique predictive value of ambivalent attachment. Moreover, resilience may serve as a moderating factor that attenuates the predictive strength of anxious attachment. Some studies indicate that adolescents who exhibit traits of anxious attachment may nonetheless reduce suicidal thoughts if they possess adequate coping resources or family support (Pantoja-Urbán et al., 2024). These findings highlight the complex interplay between attachment styles and psychological resources in shaping suicidal ideation.

Self-compassion did not significantly predict suicidal ideation in the final regression model, despite showing a negative correlation with suicidal thoughts. Previous studies have documented a robust negative association between self-compassion and suicidal behaviors. According to foundational work, self-compassion promotes emotional balance, reduces self-criticism, and encourages adaptive coping, thereby decreasing vulnerability to harmful thoughts (Neff, 2003). Meta-analytic evidence indicates that higher self-compassion is associated with reduced suicidal ideation and lower engagement in self-injurious behaviors (Suh & Jeong, 2021). Recent findings also show that self-compassion moderates the association between emotion regulation deficits and mental health outcomes in adolescents, highlighting its buffering role in the face of stress (Nguyen et al., 2025). The discrepancy between previous findings and the current regression results may reflect several factors. First, resilience and attachment may overshadow self-compassion in predictive strength when analyzed together. Second, the adolescent participants in the present study may not have developed stable self-compassionate attitudes strong enough to counteract suicidal

thoughts. Research suggests that developmental factors influence the formation of self-compassion, and many adolescents may lack the emotional maturity to deploy self-compassion effectively during distress (Williams & Baptist, 2023). Lastly, the sociocultural context may moderate the role of self-compassion, as cultural norms surrounding emotional expression and self-evaluation differ across societies (Asadi et al., 2022). Thus, while self-compassion is theoretically and empirically protective, it may not uniquely predict suicidal ideation within certain demographic or cultural populations.

Secure attachment also failed to significantly predict suicidal ideation, despite demonstrating negative correlation with suicide tendencies. This pattern aligns with evidence showing that secure attachment enhances emotional resilience, interpersonal trust, and psychological well-being (Farhadi et al., 2020). However, secure attachment may not provide sufficient predictive power beyond resilience. As noted in clinical and developmental research, resilience often functions as a mediator of the relationship between attachment and mental health outcomes (Lan & Mastrotheodoros, 2024). Thus, the buffering effect of secure attachment against suicidal ideation may be exerted indirectly through resilience or emotion regulation strategies, explaining the diminished predictive value in the regression model. Furthermore, adolescents in the clinical risk group included in this study may experience contextual stressors so severe that secure attachment alone cannot sufficiently protect against suicidal ideation.

The overall regression model accounted for 21% of the variance in suicidal ideation, which is consistent with findings from similar studies examining psychological predictors of suicidal thoughts in adolescents (Moshtaghi & Hashemi-Pour, 2024). This level of explained variance indicates that while resilience and attachment styles are important contributors, additional factors such as emotion regulation, cognitive distortions, interpersonal trauma, and environmental stressors also influence suicidal ideation. Studies investigating emotion regulation as a mediator have shown that cognitive strategies play a significant role in shaping the relationship between attachment styles and suicidal tendencies (Ahmadi Marvili et al., 2019). Similarly, research demonstrates that exposure to early trauma, family conflict, or academic stress can intensify suicidal thoughts even among adolescents with moderate resilience or secure attachment tendencies (Imonova, 2023; Lan & Mastrotheodoros, 2024). Integrating these findings, the current study contributes to a nuanced understanding of how individual emotional resources and interpersonal schemas jointly shape suicidal ideation among adolescent girls.

The results also align with international public health findings indicating that suicidal ideation among adolescent girls is rising globally, reflecting broader sociocultural and emotional challenges facing female youth (Mahase, 2023). Advancements in digital and behavioral analysis further reveal that adolescents experiencing suicidal ideation exhibit distinctive behavioral markers, including emotional instability and reduced problem-solving capacity (Wu et al., 2025). These trends reinforce the need to identify psychological predictors, such as resilience and attachment insecurity, that can inform targeted interventions. Evidence from intervention trials suggests that programs designed to enhance youth emotional safety and relational functioning can meaningfully reduce suicidal behaviors (Karemyr et al., 2025). The current study thus aligns with international efforts to develop more comprehensive and individualized prevention strategies for at-risk adolescents.

5. Conclusion

The present findings extend empirical literature by demonstrating that among multiple psychological predictors, resilience and avoidant attachment play particularly substantial roles in shaping suicidal ideation in adolescent girls. This underscores the need for prevention programs focusing on emotional coping skills, interpersonal trust-building, and reducing avoidance-based relational tendencies. Moreover, integrating self-compassion training and strengthening secure attachment relationships may further enhance psychological resilience, even if these variables did not independently predict suicidal ideation in the current regression model.

6. Limitations & Suggestions

Several limitations should be acknowledged when interpreting the findings. The use of a convenience sampling method restricts the generalizability of the results to broader adolescent populations. Self-report questionnaires may have introduced bias due to underreporting or social desirability effects, particularly given the sensitive nature of suicidal thoughts. Cross-sectional design prevents establishing causal relationships between psychological variables and suicidal ideation. Cultural factors specific to Iranian adolescent girls may limit the applicability of findings to other contexts. The study also did not examine mediating or moderating variables such as emotion regulation, family

functioning, or peer relationships, which may influence the associations observed. Additionally, the reliance on single-time assessment may not capture fluctuations in suicidal ideation, which is a dynamic and context-sensitive phenomenon.

Future studies should consider employing longitudinal designs to better understand developmental trajectories and causal pathways linking attachment, resilience, self-compassion, and suicidal ideation. Using multi-informant data, including reports from parents, teachers, or clinicians, could reduce self-report bias and strengthen validity. Experimental or intervention-based studies could examine whether enhancing resilience or reducing avoidant relational tendencies leads to measurable reductions in suicidal thoughts. Future research should also explore cultural variables, family dynamics, and trauma histories to better contextualize psychological predictors. Additionally, incorporating digital assessment tools and behavioral biomarkers could improve early detection of adolescents at risk for suicidal ideation.

Practitioners should prioritize resilience-building interventions and relational therapies targeting avoidant attachment tendencies in adolescent girls. School counselors and psychologists can incorporate self-compassion training and emotion regulation strategies into preventive mental health programs. Creating supportive relational environments within schools and families may also mitigate the risk of suicidal ideation by reducing emotional isolation and avoidance.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

R. Y. M. designed the study, coordinated data collection in schools, and contributed to the development of the research framework and selection of psychological instruments. M. A. A. conducted the statistical analyses, including correlation and regression modeling, and interpreted the findings in relation to existing literature. Both authors collaboratively drafted, revised, and approved the final manuscript.

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