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Structural Relationship Model of Early Childhood Experiences and Suicidal Ideation: The Mediating Role of Emotion Regulation Deficits and Alexithymia

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A B S T R A C T

Purpose: The present study aimed to explain the structural relationship between early childhood experiences and suicidal ideation, with the mediating roles of emotion regulation deficits and alexithymia among university students.

Methods and Materials: This applied study employed a descriptive-correlational design based on structural equation modeling. The statistical population consisted of all students of the University of Tabriz during the 2024–2025 academic year, from whom 378 participants were selected using cluster random sampling. Data were collected using the Childhood Trauma Questionnaire (Bernstein et al., 2003), the Emotion Regulation Questionnaire (Gross & John, 2003), the Beck Scale for Suicidal Ideation (Beck, 1991), and the Toronto Alexithymia Scale (Bagby et al., 1994). Data were analyzed using Pearson correlation coefficients and structural equation modeling through SPSS-18 and AMOS-22 software.

Findings: The results indicated that adverse childhood experiences, emotion regulation deficits, and alexithymia all had significant positive effects on students' suicidal ideation ($p < .01$). Emotion regulation deficits and alexithymia also played significant mediating roles in the relationship between adverse childhood experiences and suicidal ideation ($p < .01$). The final model accounted for 67% of the variance in suicidal ideation.

Conclusion: Adverse childhood experiences contribute to the development of suicidal ideation during university years by weakening emotional regulation capacities and increasing alexithymic traits.

Keywords: *Early childhood experiences, suicidal ideation, emotion regulation deficits, alexithymia.*

1. Introduction

Suicide is one of the most serious public health concerns worldwide and constitutes a major challenge for mental health systems, particularly among adolescents and young adults. Suicidal ideation, as a cognitive component within the continuum of suicidal behaviors, is recognized as one of the strongest predictors of suicide attempts and

completed suicide. Contemporary theories of suicide emphasize that suicidal ideation represents a critical stage in the pathway toward suicidal behavior and should therefore receive special attention in prevention and intervention programs (Sher & Oquendo, 2023). Epidemiological evidence indicates that suicidal thoughts are prevalent among university students due to developmental transitions, academic pressures, interpersonal challenges, and emotional vulnerabilities. Consequently, identifying the psychological and developmental factors that contribute to suicidal ideation among students has become a major focus of contemporary psychological research (Orsolini et al., 2020; Park et al., 2020).

Suicidal ideation refers to thoughts, desires, fantasies, or plans related to ending one's life and can vary from passive wishes for death to detailed plans for suicide. Although not all individuals experiencing suicidal ideation proceed to suicide attempts, research consistently demonstrates that suicidal ideation is one of the most powerful predictors of future suicidal behavior (Bayliss et al., 2022; Deshpande, 2020). Within the ideation-to-action framework, the emergence of suicidal thoughts is influenced by a complex interaction of biological, psychological, social, and developmental factors. Understanding the origins of suicidal ideation therefore requires a multidimensional approach that considers both distal and proximal risk factors (Bayliss et al., 2022; Sher & Oquendo, 2023).

Among the distal risk factors associated with suicidal ideation, adverse childhood experiences have received considerable attention in recent years. Adverse childhood experiences encompass various forms of abuse, neglect, family dysfunction, emotional deprivation, and exposure to traumatic events during developmental years. According to developmental psychopathology perspectives, childhood represents a sensitive period during which environmental experiences play a crucial role in shaping emotional, cognitive, and interpersonal functioning throughout life (Atkinson et al., 2024). Exposure to adversity during childhood can disrupt healthy psychological development and increase vulnerability to a wide range of mental health difficulties in adolescence and adulthood (Warrier et al., 2021; World Health, 2020).

A substantial body of evidence has demonstrated that adverse childhood experiences are associated with depression, anxiety disorders, substance abuse, personality pathology, emotional dysregulation, self-harming behaviors, and suicidality (Sahle et al., 2021; Thompson et al., 2019). An umbrella review conducted by Sahle et al. revealed robust associations between childhood adversity and suicidal behaviors across diverse populations (Sahle et al., 2021). Similarly, Thompson et al. reported that individuals with histories of childhood maltreatment were significantly more likely to experience suicidal ideation and engage in suicidal behaviors during adulthood (Thompson et al., 2019). In Iranian populations, Ebrahimi et al. found that childhood trauma was significantly associated with suicide attempts among adults (Ebrahimi et al., 2013). More recently, Hefazi Torghabeh and Najafi demonstrated that childhood trauma significantly predicts suicidal ideation among university students (Hefazi Torghabeh & Najafi, 2024).

Although the relationship between adverse childhood experiences and suicidal ideation has been widely documented, researchers increasingly emphasize that this relationship is rarely direct and is often explained through intermediate psychological mechanisms. In other words, childhood adversity may impair psychological capacities that subsequently increase vulnerability to suicidal thoughts and behaviors (Dickie et al., 2025; Fitzhardinge et al., 2025). Consequently, identifying the mediating variables that connect childhood adversity to suicidal ideation can contribute to more effective prevention and intervention efforts.

One of the most important mechanisms proposed in the literature is emotion regulation. Emotion regulation refers to the processes through which individuals monitor, evaluate, modify, and manage emotional experiences and emotional expressions in order to achieve personal goals and adapt to environmental demands (Pruessner et al., 2020). Effective emotion regulation enables individuals to cope with stress, tolerate distress, and maintain psychological well-being. Conversely, deficits in emotion regulation are characterized by difficulties in understanding, accepting, and managing emotional experiences, often resulting in maladaptive coping strategies and psychological distress (Agako et al., 2022).

Theoretical models suggest that adverse childhood experiences interfere with the development of adaptive emotion regulation capacities. Children exposed to abuse, neglect, or emotionally invalidating environments may fail to acquire effective strategies for identifying and managing emotional states. As a result, these individuals often experience chronic emotional dysregulation that persists into adulthood (Girard & Almeida, 2025; Trevethan & Francis, 2025). Recent empirical findings support this perspective. Trevethan and Francis reported that emotion regulation

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functions as a significant protective factor against the negative psychological consequences of adverse childhood experiences (Trevethan & Francis, 2025). Similarly, Girard and Almeida found that childhood adversity was strongly associated with emotional regulation difficulties across both incarcerated and community populations (Girard & Almeida, 2025). Dickie et al. further demonstrated that emotion regulation difficulties mediated the relationship between adverse childhood experiences and various maladaptive outcomes among college students (Dickie et al., 2025).

Growing evidence also indicates that emotion regulation difficulties are directly associated with suicidal ideation. Individuals who struggle to regulate emotions may experience overwhelming negative affect, hopelessness, and psychological pain, increasing the likelihood of suicidal thoughts as an escape from emotional suffering (Colmenero-Navarrete et al., 2022). A systematic review by Colmenero-Navarrete et al. concluded that deficits in emotion regulation were consistently linked to suicidal ideation and suicide attempts across adolescent and adult populations (Colmenero-Navarrete et al., 2022). Likewise, Sajjadpour et al. found that difficulties in emotion regulation significantly predicted suicidal ideation among clinical populations (Sajjadpour et al., 2021). Nooraei et al. further reported that emotional self-regulation played a mediating role in the relationship between childhood trauma and suicidal ideation (Nooraei et al., 2024). These findings suggest that emotion regulation deficits may represent a critical pathway through which childhood adversity contributes to suicidal ideation.

Another important psychological construct that may explain the relationship between childhood adversity and suicidal ideation is alexithymia. Alexithymia refers to a multidimensional personality trait characterized by difficulties identifying emotions, difficulties describing emotions, and an externally oriented thinking style (Besharat, 2013). Individuals with high levels of alexithymia often struggle to recognize their own emotional experiences and have limited capacity to communicate feelings effectively. These difficulties can impair emotional processing and interpersonal functioning, thereby increasing vulnerability to psychological disorders (Bagheri et al., 2020).

The developmental origins of alexithymia have been linked to adverse childhood experiences. According to developmental and attachment-based perspectives, children who grow up in emotionally neglectful, abusive, or invalidating environments may fail to develop adequate emotional awareness and emotional communication skills. Consequently, alexithymic traits may emerge as maladaptive adaptations to chronic emotional adversity (Atkinson et al., 2024). Empirical evidence supports this proposition. Zahmatkesh reported that childhood trauma was significantly associated with alexithymia and suicidal ideation among divorced women (Zahmatkesh, 2022). Rahimzadeh Yengi Kand et al. also found significant relationships between alexithymia and suicidal ideation (Rahimzadeh Yengi Kand et al., 2020).

The association between alexithymia and suicidal ideation has received increasing empirical support in recent years. Individuals with alexithymic characteristics often experience difficulties understanding and expressing emotional distress, making them more vulnerable to internalized psychological suffering and maladaptive coping strategies (Mohamed & Ahmed, 2022). Bordalo and Carvalho, in a systematic review, identified alexithymia as a significant risk factor for self-harm and suicidal behaviors among adolescents with depression (Bordalo & Carvalho, 2022). Similarly, Liu et al. demonstrated that alexithymia significantly increased suicidal ideation among patients with ovarian cancer (Liu et al., 2023). Research conducted among university students has likewise shown that alexithymia contributes substantially to suicidal thinking (Kamali Tabrizi et al., 2023; Moshtaqi & Hashemipour, 2024). Mohamed and Ahmed further reported that alexithymia was significantly associated with suicidal ideation among individuals with depressive disorders (Mohamed & Ahmed, 2022).

From an integrative perspective, emotion regulation deficits and alexithymia appear to represent closely related but distinct emotional processes. Difficulties identifying and describing emotions may impair emotion regulation capacities, whereas chronic emotion regulation failures may reinforce alexithymic tendencies over time (Agako et al., 2022; Pruessner et al., 2020). Both constructs have been independently linked to adverse childhood experiences and suicidal ideation, suggesting that they may jointly function as mediating mechanisms in the pathway from childhood trauma to suicidality. Nevertheless, despite the growing literature on these variables, relatively few studies have simultaneously examined the mediating roles of emotion regulation deficits and alexithymia within a single structural model.

Furthermore, contemporary psychotherapy theories emphasize the importance of emotional awareness, emotional regulation, and mentalization processes in

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preventing suicidal behaviors. Research suggests that individuals who possess stronger emotional processing capacities are better able to cope with distressing life events and are less likely to develop suicidal thoughts (Ludemann et al., 2021). Consequently, investigating emotional mechanisms underlying suicidal ideation may provide valuable insights for developing targeted preventive and therapeutic interventions.

Although previous studies have examined associations among childhood trauma, emotion regulation, alexithymia, and suicidal ideation, important gaps remain in the literature. Most studies have focused on isolated relationships between these variables, and fewer investigations have evaluated their simultaneous structural relationships in university student populations. Given the increasing prevalence of mental health problems among students and the critical role of suicidal ideation as a precursor to suicidal behavior, further research is warranted to clarify the mechanisms through which adverse childhood experiences contribute to suicidal thinking.

Therefore, the present study aimed to explain the structural relationship between adverse childhood experiences and suicidal ideation through the mediating roles of emotion regulation deficits and alexithymia among university students.

2. Methods and Materials

This study was applied in terms of purpose and was a descriptive-correlational investigation based on structural equation modeling with a cross-sectional design. The statistical population consisted of all students of the University of Tabriz during the 2024–2025 academic year (N = 23,000). The sample size was determined using Cochran's formula. Considering a sampling error of 5% and a confidence level of 95%, a sample size of 378 participants was obtained.

Cluster random sampling was employed. Each faculty was considered a cluster, and from the existing clusters (faculties), five clusters were randomly selected. Subsequently, two classes were chosen from each cluster, and all students present in those classes were included as the final sample.

To collect the data, the necessary permissions were obtained. After explaining the objectives of the study and adhering to ethical principles, the researcher attended the selected classes and obtained students' informed consent to participate. Four questionnaires were then administered to the selected participants. The completed questionnaires were subsequently collected and used for data analysis.

The following instruments were used for data collection:

Childhood Trauma Questionnaire (CTQ; Bernstein et al., 2003): The Childhood Trauma Questionnaire was developed by Bernstein et al. (2003) to assess childhood trauma and adverse childhood experiences. It is a screening instrument designed to identify individuals with histories of childhood abuse and neglect and is suitable for both adolescents and adults. The questionnaire assesses five types of childhood maltreatment: sexual abuse, physical abuse, emotional abuse, emotional neglect, and physical neglect. The instrument consists of 28 items, of which 25 assess the core dimensions of childhood trauma, while 3 items are included to detect minimization or denial of childhood difficulties. Bernstein et al. (2003) reported Cronbach's alpha coefficients of .87, .86, .95, .89, and .78 for emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect, respectively, among adolescents. Concurrent validity coefficients with clinicians' ratings of childhood trauma ranged from .59 to .78 (Bernstein et al., 2003). In Iran, Ebrahimi et al. (2013) reported Cronbach's alpha coefficients ranging from .81 to .98 for the five subscales.

Toronto Alexithymia Scale (TAS-20; Bagby et al., 1994): The Persian version of the Toronto Alexithymia Scale (Bagby et al., 1994) is a 20-item self-report measure assessing three dimensions of alexithymia: difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking. Responses are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A total alexithymia score is calculated by summing the scores of the three subscales. The scale is suitable for both clinical and non-clinical populations and may be administered individually or in groups. Items 4, 5, 10, 18, and 19 are reverse scored. The questionnaire was translated and standardized in Iran by Besharat (2013). Its validity has been confirmed through assessments of face validity and convergent validity.

Emotion Regulation Questionnaire (ERQ; Gross & John, 2003): The Emotion Regulation Questionnaire consists of 10 items and was developed by Gross and John (2003) to assess emotion regulation strategies. The instrument includes two dimensions: cognitive reappraisal, measured by Items 1, 3, 5, 7, 8, and 10, and expressive suppression, measured by Items 2, 4, 6, and 9. Participants respond on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Scores are calculated by summing responses across

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all items, yielding a possible range from 10 to 70. Higher scores indicate greater emotion regulation capacity, whereas lower scores indicate poorer emotion regulation. Gross and John (2003) reported internal consistency coefficients of .79 for cognitive reappraisal and .73 for expressive suppression. Karymayr and Vingerhoets reported internal consistency coefficients of .83 for cognitive reappraisal and .79 for expressive suppression. In Iran, Hosseini reported a Cronbach's alpha coefficient of .79 for the cognitive reappraisal subscale.

Beck Scale for Suicide Ideation (BSSI; Beck et al., 1988): The Beck Scale for Suicide Ideation is a 19-item self-report instrument designed to identify and measure the severity of attitudes, behaviors, and plans related to suicide during the previous week. The scale employs a 3-point response format scored from 0 to 2. Total scores are obtained by summing item scores, resulting in a range from 0 to 38. Beck's validation samples included both adolescents and adults from inpatient and outpatient settings. The BSSI demonstrated strong correlations with standardized clinical measures of depression and suicidality, with correlation coefficients ranging from .90 among inpatients to .94 among outpatients. The scale also correlated with the suicide item of the Beck Depression Inventory, with coefficients ranging from .58 to .69. Furthermore, correlations with the Beck Hopelessness Scale and the Beck Depression Inventory ranged from .64 to .75. The BSSI has demonstrated high reliability, with Cronbach's alpha coefficients ranging from .87 to .97 and a test–retest reliability coefficient of .54. In Iran, Anisi et al. (2004) evaluated the validity and reliability of the BSSI among 100 male participants aged 19–28 years selected through convenience sampling. Their findings indicated a correlation of .76 between the BSSI and the Goldberg Depression Scale. Reliability coefficients were .95 using Cronbach's alpha and .75 using the split-half method. These findings support the internal consistency, reliability, and concurrent validity of the scale. The suicide ideation items are consistent with established conceptualizations of suicidal behavior, and evidence suggests that the BSSI is a valid self-report instrument for assessing suicidal ideation.

The collected data were analyzed using SPSS version 18 and AMOS version 22. Pearson correlation analysis and structural equation modeling were employed to examine the relationships among the study variables. The Sobel test was used to evaluate the significance of the mediating effects.

3. Findings and Results

Of the 378 participants, 177 (46.8%) were male and 201 (53.2%) were female. Regarding marital status, 266 participants (70.4%) were single and 112 (29.6%) were married. In terms of educational level, 201 participants (53.2%) were undergraduate students, 135 (35.7%) were master's students, and 42 (11.1%) were doctoral students. Regarding age, 70 participants (18.5%) were aged 20 years or younger, 107 (28.3%) were between 21 and 25 years, 99 (26.2%) were between 26 and 30 years, 44 (11.6%) were between 31 and 35 years, 35 (9.3%) were between 36 and 40 years, and 23 (6.1%) were older than 40 years. Concerning field of study, 144 participants (38.1%) were enrolled in humanities, 108 (28.6%) in basic sciences, and 126 (33.3%) in engineering and technical sciences.

Table 1

Descriptive Statistics of the Study Variables

Variables	Mean	Standard Deviation	Skewness	Kurtosis	Minimum	Maximum
Suicidal Ideation	19.17	8.39	0.12	-0.81	0	38
Adverse Childhood Experiences	56.39	16.32	0.72	0.53	27	109
Emotion Regulation Deficits	34.28	14.43	0.33	-0.82	10	70
Alexithymia	59.88	18.88	0.18	-0.76	20	98

The Kolmogorov–Smirnov test was used to examine the normality of the variable distributions, and the results confirmed that all variables were normally distributed ($p > .05$).

Pearson correlation analysis was conducted to examine the relationships among the study variables. As shown in Table 2, the results indicate significant positive relationships between adverse childhood experiences ($r = .46$, $p = .001$), emotion regulation deficits ($r = .70$, $p = .001$), and alexithymia ($r = .59$, $p = .001$) with students' suicidal ideation. Furthermore, adverse childhood experiences were significantly and positively associated with emotion regulation deficits ($r = .23$, $p = .001$) and alexithymia ($r = .34$, $p = .001$). In addition, a significant positive relationship was found between alexithymia and emotion regulation deficits ($r = .45$, $p = .001$).

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Table 2

Pearson Correlation Matrix of the Study Variables

Variables	Suicidal Ideation	Adverse Childhood Experiences	Emotion Regulation Deficits	Alexithymia
Suicidal Ideation	1			
Adverse Childhood Experiences	.458**	1		
Emotion Regulation Deficits	.695**	.231**	1	
Alexithymia	.588**	.341**	.452**	1

Structural equation modeling (SEM) was used to test the structural relationships among the variables. A satisfactory model fit indicates that the proposed model possesses adequate validity and explanatory power. The model fit indices are reported in Table 3. Given that all fit indices fell within acceptable ranges, the proposed structural model demonstrated a good fit to the data.

Table 3

Fit Indices of the Structural Model Examining the Relationship Between Early Childhood Experiences and Suicidal Ideation With the Mediating Roles of Emotion Regulation Deficits and Alexithymia

Fit Category	Fit Index	Value	Criterion	Interpretation
Absolute Fit	CMIN/DF	2.56	< 5	Good Fit
	χ^2 p-value	.001	> .05	Poor Fit
	Goodness-of-Fit Index (GFI)	.93	> .90	Good Fit
Incremental Fit	Tucker–Lewis Index (TLI)	.91	> .90	Good Fit
	Comparative Fit Index (CFI)	.91	> .90	Good Fit
Parsimonious Fit	Root Mean Square Error of Approximation (RMSEA)	.064	< .08	Good Fit
	Parsimony Normed Fit Index (PNFI)	.66	> .50	Good Fit

The results of the structural model analysis are presented in Table 4 and Figure 1. The findings indicate that adverse childhood experiences (β = .26, p = .001), emotion regulation deficits (β = .60, p = .001), and alexithymia (β = .29, p = .001) had significant positive effects on students' suicidal ideation. Moreover, adverse childhood experiences significantly and positively predicted emotion regulation deficits (β = .25, p = .001) and alexithymia (β = .34, p = .001).

The Sobel test was used to examine the mediating roles of emotion regulation deficits and alexithymia. The results demonstrated that the indirect effect of adverse childhood experiences on suicidal ideation through emotion regulation deficits was statistically significant at the 95% confidence level ($p < .05$). Therefore, emotion regulation deficits played a significant mediating role in the relationship between adverse childhood experiences and suicidal ideation. Likewise, the indirect effect of adverse childhood experiences on suicidal ideation through alexithymia was significant at the 95% confidence level ($p < .05$), indicating that alexithymia also served as a significant mediator in this relationship.

Overall, the structural model explained 67% of the variance in students' suicidal ideation. Among the predictors, emotion regulation deficits exerted the strongest direct effect on suicidal ideation, with a standardized coefficient of .60.

Figure 1

Structural model of the relationship between early childhood experiences and suicidal ideation with the mediating roles of emotion regulation deficits and alexithymia.

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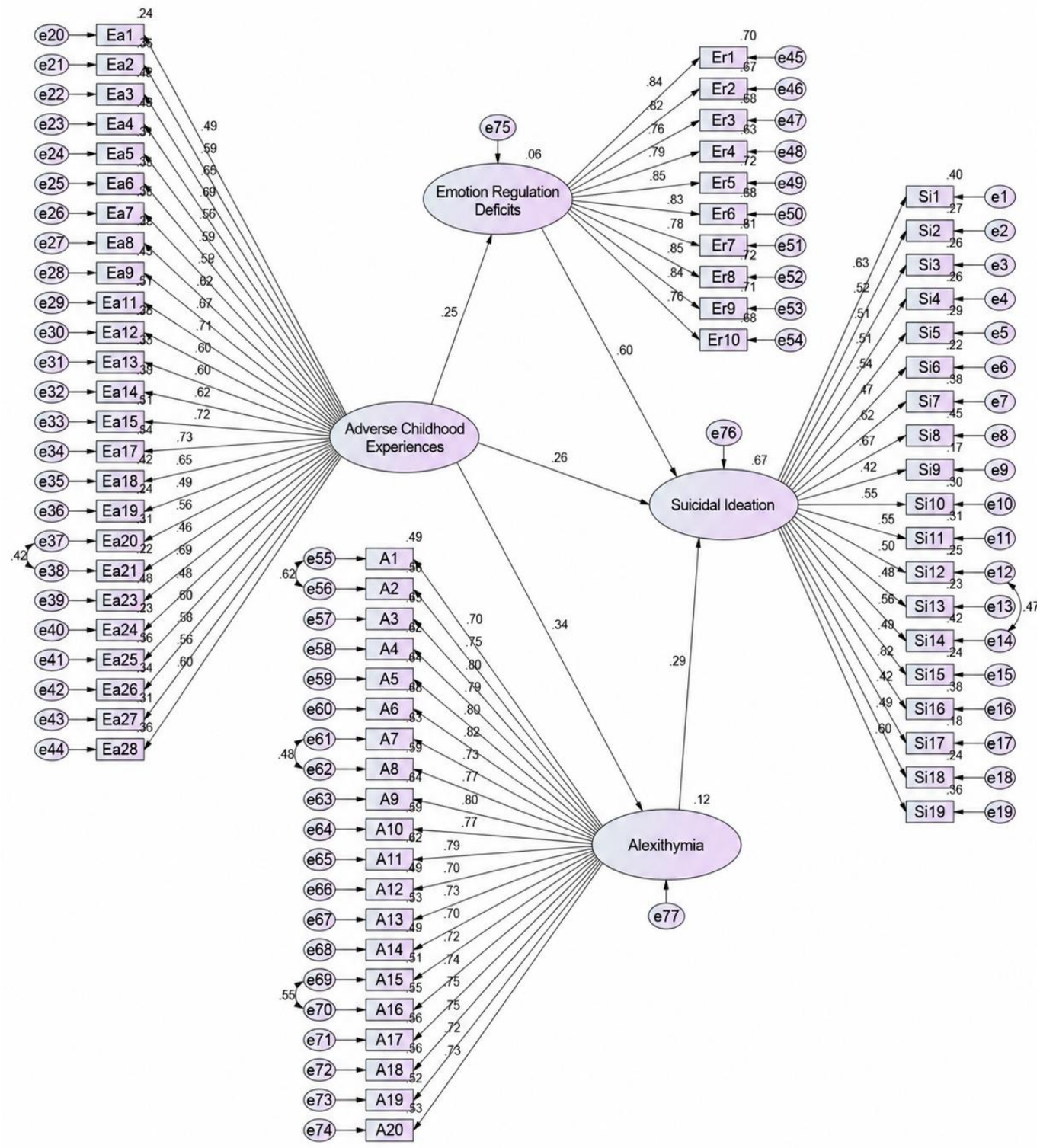

Table 4

Estimated Path Coefficients of the Structural Model Examining the Relationship Between Early Childhood Experiences and Suicidal Ideation With the Mediating Roles of Emotion Regulation Deficits and Alexithymia

Independent Variable	Mediating Variable	Dependent Variable	Estimate	SE	CR	p	Standardized Estimate (β)

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Adverse Childhood Experiences	—	Suicidal Ideation	0.263	0.051	5.16	.001	.259
Alexithymia	—	Suicidal Ideation	0.154	0.024	6.35	.001	.291
Emotion Regulation Deficits	—	Suicidal Ideation	0.177	0.017	10.51	.001	.602
Adverse Childhood Experiences	—	Alexithymia	0.658	0.121	5.42	.001	.343
Adverse Childhood Experiences	—	Emotion Regulation Deficits	0.850	0.202	4.20	.001	.245
Adverse Childhood Experiences	Alexithymia	Suicidal Ideation	—	0.024	4.15	.001	.100
Adverse Childhood Experiences	Emotion Regulation Deficits	Suicidal Ideation	—	0.039	3.90	.001	.147

4. Discussion and Conclusion

The findings of the present study demonstrated that adverse childhood experiences, emotion regulation deficits, and alexithymia were all significantly and positively associated with suicidal ideation among university students. Furthermore, adverse childhood experiences showed significant positive relationships with both emotion regulation deficits and alexithymia. The structural equation model also revealed that adverse childhood experiences exerted both direct and indirect effects on suicidal ideation through emotion regulation deficits and alexithymia. The final model explained 67% of the variance in suicidal ideation, indicating that these variables collectively play a substantial role in understanding suicidal thinking among students. Among the predictors, emotion regulation deficits exhibited the strongest direct effect on suicidal ideation. These findings highlight the importance of emotional processes in explaining how early adverse experiences contribute to suicidal thoughts during young adulthood.

One of the central findings of the study was the significant positive relationship between adverse childhood experiences and suicidal ideation. This result is consistent with a substantial body of research demonstrating that childhood maltreatment and traumatic experiences constitute major risk factors for suicidal thoughts and behaviors across the lifespan (Sahle et al., 2021; Thompson et al., 2019). Childhood is a critical developmental period during which individuals acquire fundamental cognitive, emotional, and interpersonal competencies. When children are exposed to abuse, neglect, emotional deprivation, or dysfunctional family environments, the normal development of psychological resilience may be disrupted, creating long-term vulnerabilities that persist into adulthood (Warrier et al., 2021; World Health, 2020). The findings of the present study are in line with those of Ebrahimi et al., who reported a significant association between childhood trauma and suicide attempts in adulthood (Ebrahimi et al., 2013). Similarly, Hefazi Torghabeh and Najafi found that childhood trauma significantly predicted suicidal ideation among university students (Hefazi Torghabeh & Najafi, 2024). The current findings also support the conclusions of Thompson et al. and Sahle et al., who emphasized that adverse childhood experiences increase susceptibility to suicidal outcomes through their pervasive effects on emotional and psychological functioning (Sahle et al., 2021; Thompson et al., 2019).

From a theoretical perspective, adverse childhood experiences can undermine the development of secure attachment, positive self-concepts, and adaptive coping mechanisms. Individuals who experience chronic childhood adversity often develop negative beliefs about themselves, others, and the future, which are cognitive characteristics strongly associated with suicidal ideation. Repeated exposure to trauma may also heighten sensitivity to stress and reduce the individual's capacity to manage emotional distress, thereby increasing vulnerability to suicidal thoughts when facing later life challenges (Atkinson et al., 2024; Sher & Oquendo, 2023). Consequently, the direct relationship observed between childhood adversity and suicidal ideation in the present study is theoretically meaningful and consistent with contemporary developmental psychopathology models.

Another important finding was the positive relationship between adverse childhood experiences and emotion regulation deficits. This result aligns with theoretical and empirical literature suggesting that childhood environments provide the primary context in which emotional regulation skills are acquired. Supportive caregiving facilitates emotional awareness, emotional expression, and adaptive regulation strategies, whereas abusive or neglectful environments impair these developmental processes (Pruessner et al., 2020). The findings are consistent with those of Trevethan and Francis, who identified emotion regulation as a key protective factor in mitigating the

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negative effects of adverse childhood experiences (Trevethan & Francis, 2025). Similarly, Girard and Almeida reported that individuals exposed to childhood adversity displayed significantly greater difficulties regulating emotions (Girard & Almeida, 2025). Dickie et al. also demonstrated that emotion regulation difficulties served as a critical pathway linking adverse childhood experiences with maladaptive behavioral outcomes among college students (Dickie et al., 2025). These findings suggest that traumatic childhood experiences may interfere with the acquisition of effective emotional coping strategies, leaving individuals less capable of managing negative emotions during later developmental stages.

The results further revealed that emotion regulation deficits were significantly associated with suicidal ideation and represented the strongest direct predictor in the structural model. This finding is highly consistent with previous research emphasizing the central role of emotional dysregulation in suicidality (Colmenero-Navarrete et al., 2022; Sajjadpour et al., 2021). Individuals who have difficulty regulating emotions frequently experience intense negative affect, emotional instability, and persistent psychological distress. In such situations, suicidal ideation may emerge as an attempt to escape overwhelming emotional pain. Colmenero-Navarrete et al., in their systematic review, concluded that difficulties in emotion regulation are consistently associated with both suicidal ideation and suicide attempts across various age groups (Colmenero-Navarrete et al., 2022). Likewise, Sajjadpour et al. found that several dimensions of emotion regulation difficulties significantly predicted suicidal thoughts among individuals with a history of suicidality (Sajjadpour et al., 2021). The current findings therefore provide additional support for the proposition that emotional dysregulation constitutes a proximal risk factor for suicidal ideation.

The positive association between adverse childhood experiences and alexithymia was another significant finding of the study. This result is consistent with developmental theories proposing that emotionally invalidating or traumatic childhood environments hinder the development of emotional awareness and emotional communication skills. Children who grow up in environments where emotions are ignored, punished, or dismissed may learn to suppress emotional experiences rather than identify and express them appropriately. Over time, these experiences may contribute to alexithymic characteristics, including difficulties identifying feelings, difficulties describing feelings, and externally oriented thinking (Atkinson et al., 2024). The findings are in agreement with previous studies indicating that childhood trauma is strongly associated with alexithymia (Bagheri et al., 2020; Zahmatkesh, 2022). These studies suggest that alexithymia may represent a long-term psychological consequence of adverse developmental experiences.

The present study also found a significant positive relationship between alexithymia and suicidal ideation. This finding corroborates previous evidence identifying alexithymia as an important risk factor for suicidal thoughts and behaviors (Bordalo & Carvalho, 2022; Mohamed & Ahmed, 2022). Individuals with alexithymia often struggle to understand and articulate their emotional experiences. Consequently, emotional distress may accumulate without being adequately processed or communicated, leading to increased psychological suffering and a heightened risk of suicidal thinking. Bordalo and Carvalho's systematic review identified alexithymia as a significant predictor of self-harm and suicidality among adolescents with depression (Bordalo & Carvalho, 2022). Similarly, Liu et al. demonstrated that alexithymia increased suicidal ideation through its effects on psychological burden and self-efficacy (Liu et al., 2023). Research conducted among university students has also documented positive associations between alexithymia and suicidal ideation (Kamali Tabrizi et al., 2023; Moshtaqi & Hashemipour, 2024). The present findings extend this evidence by demonstrating that alexithymia contributes significantly to suicidal ideation even when examined simultaneously with childhood adversity and emotion regulation deficits.

A particularly important contribution of the present study lies in its examination of the mediating roles of emotion regulation deficits and alexithymia. The findings revealed that both variables significantly mediated the relationship between adverse childhood experiences and suicidal ideation. These results support contemporary theoretical models emphasizing that the effects of childhood trauma on later psychological outcomes are often transmitted through disruptions in emotional functioning rather than through direct pathways alone (Dickie et al., 2025; Fitzhardinge et al., 2025). Childhood adversity may impair emotional awareness and emotion regulation capacities, which subsequently increase vulnerability to suicidal thoughts. The mediating role of emotion regulation deficits observed in the present study is consistent with the findings of Nooraei et al., who reported that emotional self-regulation mediated the relationship between childhood trauma and suicidal ideation (Nooraei et al., 2024). Likewise, the mediating influence of

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alexithymia is consistent with research demonstrating its role as an intermediary mechanism linking psychological vulnerabilities to maladaptive outcomes (Bagheri et al., 2020).

The simultaneous inclusion of emotion regulation deficits and alexithymia in the structural model offers a more comprehensive understanding of how childhood adversity contributes to suicidal ideation. Although both constructs are related to emotional functioning, they represent distinct processes. Alexithymia primarily involves deficits in emotional awareness and emotional expression, whereas emotion regulation deficits involve difficulties managing emotional experiences once they are recognized (Agako et al., 2022; Pruessner et al., 2020). The significant mediating effects of both variables suggest that childhood adversity disrupts multiple aspects of emotional functioning, each of which contributes uniquely to suicidal ideation. This finding highlights the importance of considering emotional functioning as a multidimensional construct when investigating suicide risk.

The substantial proportion of variance explained by the model further underscores the importance of emotional mechanisms in understanding suicidal ideation among university students. The finding that 67% of the variance in suicidal ideation was explained by adverse childhood experiences, emotion regulation deficits, and alexithymia suggests that these variables collectively represent a powerful explanatory framework. Although other biological, social, and contextual factors undoubtedly contribute to suicidality, the present findings indicate that emotional processes constitute particularly important targets for assessment and intervention. These results are also compatible with broader psychological theories emphasizing the central role of emotional competence in mental health and psychological adaptation (Atkinson et al., 2024; Wang & Hall, 2018).

Overall, the findings of the present study support a developmental-emotional model of suicidal ideation in which adverse childhood experiences increase vulnerability to suicidal thoughts through their detrimental effects on emotional awareness and emotional regulation. The results emphasize that the psychological consequences of childhood adversity extend beyond immediate emotional distress and may persist into adulthood by shaping fundamental emotional capacities. Understanding these pathways may contribute to the development of more effective prevention and intervention strategies aimed at reducing suicide risk among university students.

One limitation of the present study is its cross-sectional design, which restricts causal interpretations of the observed relationships. In addition, all variables were assessed using self-report measures, which may be subject to response biases such as social desirability and recall errors. The sample was limited to students from a single university, potentially limiting the generalizability of the findings to other populations. Furthermore, other potentially important variables associated with suicidal ideation, such as depression, anxiety, social support, and personality characteristics, were not included in the model.

Future studies are encouraged to employ longitudinal designs to clarify the causal pathways among adverse childhood experiences, emotional functioning, and suicidal ideation. Researchers may also examine additional mediating and moderating variables, including resilience, attachment styles, mentalization, self-compassion, and perceived social support. Comparative studies involving clinical and non-clinical populations, as well as investigations across different cultural and educational contexts, would further enhance understanding of the mechanisms underlying suicidal ideation.

The findings suggest that mental health services within universities should prioritize the early identification of students with histories of childhood adversity and emotional difficulties. Psychoeducational and therapeutic programs aimed at improving emotional awareness, emotional expression, and emotion regulation skills may help reduce vulnerability to suicidal ideation. Screening procedures that assess childhood trauma, alexithymia, and emotion regulation difficulties could be integrated into student counseling services. In addition, preventive interventions focusing on emotional competence development may contribute to promoting psychological well-being and reducing suicide risk among university students.

Authors' Contributions

Authors equally contributed to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

All procedures performed in studies involving human participants were under the ethical standards of the institutional and, or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. This article was extracted from a postdoctoral research project conducted at the University of Tabriz under Contract No. (1054/S). The project received ethical approval under the code IR.TABRIZU.REC.1404.150.

References

Agako, A., Ballester, P., Stead, V., McCabe, R. E., & Green, S. M. (2022). Measures of Emotion Dysregulation: A Narrative Review. *Canadian Psychology/Psychologie Canadienne*, *63*(3), 376.

Atkinson, R., Nolen-Hoeksema, S., Bem, D., Smith, E., & Atkinson, R. (2024). *Hilgard's Introduction to Psychology*. Roshd.

Bagheri, M., Nematollahzadeh Mahani, K., & Pouramerollahi, M. (2020). The Mediating Role of Alexithymia in the Relationship between Coping Styles and Personality Traits with Obsessive-Compulsive Symptoms. *Internal Medicine Today*, *27*(1), 62-81.

Bayliss, L. T., Christensen, S., Lamont-Mills, A., & du Plessis, C. (2022). Suicide Capability within the Ideation-to-Action Framework: A Systematic Scoping Review. *PLoS One*, *17*(10), e0276070.

Besharat, M. A. (2013). Toronto Alexithymia Scale: Questionnaire, Administration Method, and Scoring: Persian Version. *Developmental Psychology: Iranian Psychologists*, *10*(37), 90-92.

Bordalo, F., & Carvalho, I. P. (2022). The Role of Alexithymia as a Risk Factor for Self-Harm among Adolescents in Depression: A Systematic Review. *Journal of affective disorders*, *297*, 130-144.

Colmenero-Navarrete, L., Garcia-Sancho, E., & Salguero, J. M. (2022). Relationship between Emotion Regulation and Suicide Ideation and Attempt in Adults and Adolescents: A Systematic Review. *Archives of Suicide Research*, *26*(4), 1702-1735.

Deshpande, C. G. (2020). *Suicide and Attempted Suicide*. Geerwanjyoti Prakashan.

Dickie, D. T., Langhinrichsen-Rohling, J., & McAnulty, R. D. (2025). College students' adverse childhood experiences and their anticipated risky behaviors: Early maladaptive schemas and emotion regulation difficulties as potential mediators. *Journal of American College Health*, *73*(8), 3134-3142. https://doi.org/10.1080/07448481.2024.2369854

Ebrahimi, H., Dezhkam, M., & Seghatoleslam, T. (2013). Childhood Traumas and Suicide Attempt in Adulthood. *Iranian Journal of Psychiatry and Clinical Psychology*, *19*(4), 275-282.

Fitzhardinge, M., Blackman, L., & Pilkington, P. D. (2025). Adverse childhood experiences and emotional exhaustion in therapists: The mediating role of early maladaptive schemas. *Clinical Psychology & Psychotherapy*, *32*(4), e70115. https://doi.org/10.1002/cpp.70115

Girard, C., & Almeida, T. C. (2025). Tracing the Impact of Adverse Childhood Experiences: Emotional Regulation and Substance Use Among French Prisoners and the General Population. *Crime & Delinquency*. https://doi.org/10.1177/00111287251335006

Hefazi Torghabeh, L., & Najafi, M. (2024). The Relationship between Childhood Trauma and Suicidal Ideation in Students: The Mediating Role of Mentalization and Mindfulness. *Journal of Educational Psychology Studies*, *21*(56), 27-51.

Kamali Tabrizi, P., Balashour, B., Mohammadi, S., & Kamandlou, M. (2023). The Role of Perceived Stress, Alexithymia, and Mindfulness in Predicting Suicidal Ideation among Nursing Students. *Nursing Management Quarterly*, *12*(2), 22-32.

Liu, L., Sun, Y., Wang, Y., Luo, N., Bai, R., Pan, M., & Wu, H. (2023). Impact of Alexithymia on Suicidal Ideation among Patients with Ovarian Cancer: A Moderated Mediation Model of Self-Perceived Burden and General Self-Efficacy. *Supportive Care in Cancer*, *31*(3), 177.

Ludemann, J., Rabung, S., & Andreas, S. (2021). Systematic Review on Mentalization as Key Factor in Psychotherapy. *International journal of environmental research and public health*, *18*(17), 9161.

Mohamed, B. E. S., & Ahmed, M. G. A. E. (2022). Emotional Intelligence, Alexithymia and Suicidal Ideation among Depressive Patients. *Archives of Psychiatric Nursing*, *37*, 33-38.

Moshtaqi, S., & Hashemipour, F. (2024). Modeling Suicidal Ideation Based on Insecure Attachment Style, Mentalization Ability, and Alexithymia in Female Students. *Journal of psychiatric nursing*, *12*(2), 98-110.

Nooraei, N., Goodarzi, M. A., & Aflakseir, A. (2024). The Mediating Role of Mentalization and Emotional Self-Regulation in the Relationship between Childhood Trauma and Suicidal Ideation. *Clinical Psychology Quarterly*, *16*(2), 13-25.

Orsolini, L., Latini, R., Pompili, M., Serafini, G., Volpe, U., Vellante, F., & De Berardis, D. (2020). Understanding the Complex of Suicide in Depression: From Research to Clinics. *Psychiatry Investigation*, *17*(3), 207.

Park, C. H. K., Lee, J. W., Lee, S. Y., Moon, J., Jeon, D. W., Shim, S. H., & Ahn, Y. M. (2020). Suicide Risk Factors across Suicidal Ideators, Single Suicide Attempters, and Multiple Suicide Attempters. *Journal of psychiatric research*, *131*, 1-8.

Pruessner, L., Barnow, S., Holt, D. V., Joormann, J., & Schulze, K. (2020). A Cognitive Control Framework for Understanding Emotion Regulation Flexibility. *Emotion*, *20*(1), 21-29.

Rahimzadeh Yengi Kand, A., Kord, B., & Aprooz, K. (2020). The Relationship of Defense Styles and Alexithymia with Suicidal Ideation. *Cognitive Analytical Psychology Quarterly*, *11*(40), 13-24.

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E-ISSN: 2645-3460

Sahle, B. W., Reavley, N. J., Li, W., Morgan, A. J., Yap, M. B. H., Reupert, A., & Jorm, A. F. (2021). The Association between Adverse Childhood Experiences and Common Mental Disorders and Suicidality: An Umbrella Review of Systematic Reviews and Meta-Analyses. *European Child & Adolescent Psychiatry*, 1-11.

Sajjadpour, S. H., Heydari Nasab, L., Shairi, M. R., & Gholami Fesharaki, M. (2021). Prediction of Suicidal Ideation Based on Components of Difficulties in Emotion Regulation in Patients with Suicidal Ideation. *Journal of Military Medicine*, *10*(2).

Sher, L., & Oquendo, M. A. (2023). Suicide: An Overview for Clinicians. *Medical Clinics*, *107*(1), 119-130.

Thompson, M. P., Kingree, J. B., & Lamis, D. (2019). Associations of Adverse Childhood Experiences and Suicidal Behaviors in Adulthood in a US Nationally Representative Sample. *Child: Care, Health and Development*, *45*(1), 121-128.

Trevethan, M., & Francis, S. E. (2025). Protective Factors for Adverse Childhood Experiences: The Role of Emotion Regulation and Attachment. *Journal of Child and Family Studies*, *34*(1), 25-40. https://doi.org/10.1007/s10826-024-02989-7

Wang, H., & Hall, N. C. (2018). A Systematic Review of Teacher Causal Attributions: Prevalence, Correlates, and Consequences. *Frontiers in psychology*, *9*, 2305-2310.

Warrier, V., Kwong, A. S., Luo, M., Dalvie, S., Croft, J., Sallis, H. M., & Cecil, C. A. M. (2021). Gene-Environment Correlations and Causal Effects of Childhood Maltreatment on Physical and Mental Health: A Genetically Informed Approach. *The Lancet Psychiatry*, *8*(5), 373-386.

World Health, O. (2020). Child Maltreatment. http://www.who.int/mediacentre/factsheets/fs150/en/index.html

Zahmatkesh, Y. (2022). Prediction of Suicidal Ideation Based on Alexithymia and Childhood Traumas in Divorced Women. *Psychological Dynamics in Mood Disorders*, *1*(2), 47-55.

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