

Suicidal Thoughts, Defense Mechanisms, Mindfulness, and Emotional Intelligence in Female Students

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Abstract

Background: Suicidal ideation is a significant mental health challenge among female college students. Psychological factors such as defense mechanisms, mindfulness, and emotional intelligence play important roles in how individuals cope with stress and emotional distress. Therefore, this study aimed to examine the relationship between suicidal ideation, defense mechanisms, mindfulness, and emotional intelligence in this population.

Methods: A descriptive correlational study was conducted with a convenience sample of 97 female students at Islamic Azad University in Shiraz, Iran, from April to May, 2024. Participants completed validated measures of mindfulness (FFMQ), defense mechanisms (DSQ), emotional intelligence (EIQ), and the Multi-Attitude Suicide Tendency Scale (MAST). Data were analyzed using Pearson correlations and multiple linear regression (enter method) in SPSS version 26.

Results: Several defense mechanisms demonstrated significant positive associations with suicidal ideation ($P < 0.05$), including rationalization, projection, denial, omnipotence, devaluation, acting-out, somatization, layering, passive-aggression, displacement, isolation, suppression, and sublimation. Higher levels of these defense mechanisms were associated with greater suicidal ideation. Acting-out ($B = 0.38$) and passive-aggression ($B = 0.38$) had the strongest effects. In contrast, fantasy and autistic thinking were not significantly related to suicidal ideation. Autistic fantasizing was negatively associated with suicidal ideation ($B = -0.24$, $P = 0.001$), while humor showed a marginal negative association ($P = 0.08$). Additionally, higher emotional intelligence was significantly associated with lower suicidal ideation ($B = -0.25$, $P = 0.001$). Higher emotional intelligence was also significantly associated with lower levels of suicidal ideation ($B = -0.25$, $P = 0.001$).

Conclusions: This study demonstrated that a wide array of defense mechanisms—including denial, omnipotence, devaluation, acting-out, somatization, layering, passive-aggression, displacement, isolation, anticipation, false-otherness, reaction-formation, and rationalization—are directly associated with increased suicidal ideation. These findings suggest that the utilization of such maladaptive defenses may exacerbate suicidal tendencies, whereas higher emotional intelligence serves as a significant protective factor in mitigating suicidal ideation.

Keywords: Suicidal Thoughts, Defense Mechanisms, Mindfulness, Emotional Intelligence

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1. Introduction

Suicide rates increase markedly during developmental transitions, especially from late childhood to adolescence and from late adolescence to early adulthood (1). Although Iran's suicide rate is lower than the global average, it remains higher than most other Middle Eastern countries (2). The suicide rate among Iranian military personnel has been estimated at approximately 12 per 100,000 individuals. Established risk factors for suicide include psychiatric disorders and a history of prior suicide attempts (3). From a psychoanalytic perspective, defense mechanisms are psychological processes that protect the ego from distressing

thoughts, impulses, and emotions. While immature and neurotic defense mechanisms can temporarily suppress painful emotions, they do not resolve underlying emotional conflicts. Instead, these unresolved emotions may manifest as maladaptive or poorly controlled behaviors (4). Defense mechanisms are largely unconscious cognitive-emotional processes that regulate anxiety by modifying emotional awareness and perception of reality. As relatively stable individual characteristics, defense mechanisms play an important role in shaping mental health and psychological well-being (5). Classical psychoanalytic theory categorizes defense styles into four groups: immature, neurotic, narcissistic,

and mature. These groups differ in adaptiveness and psychological outcomes (6). Recent empirical evidence highlights the relevance of defense mechanisms in suicidal ideation (7). Di Giuseppe and colleagues found that interventions targeting defense mechanisms effectively reduced suicidal thoughts (7).

The researchers identified rationalization, reaction formation, fantasy, denial, regression, and intellectualization as common defense mechanisms among individuals who had attempted suicide. However, the frequency of these mechanisms was not significantly associated with the severity of suicidal ideation (6-8). Similarly, MacPherson and co-workers found that defense styles combined with mental flexibility were associated with suicidal ideation (8). Additionally, research indicated that mindfulness plays a protective role by enhancing emotion regulation and reducing suicidal ideation (9). Mindfulness-based interventions have been shown to reduce suicidal ideation in couples and women, while improving emotional regulation in women (10, 11). Unlike change-oriented coping strategies, mindfulness emphasizes acceptance, decentering, and developing a different relationship with thoughts and emotions. This fosters nonjudgmental awareness and greater tolerance of negative emotional states (12). Conceptually, mindfulness involves intentionally directing one's attention to present-moment experiences in an open, purposeful, and nonjudgmental manner (13).

Emotional intelligence has also been identified as a significant psychological factor in suicidal behavior. Empirical studies consistently reported an inverse relationship between emotional intelligence and suicidal ideation, with emotional intelligence serving as a significant negative predictor of suicidal tendencies (12-14). Notably, no robust gender differences have been observed in emotional intelligence or suicidal ideation. Therefore, low emotional intelligence may constitute an important risk factor for suicide attempts, as individual differences in emotional intelligence are closely linked to variations in social functioning and adaptive behavior. From a psychodynamic perspective, unconscious motivations rooted in a poorly integrated sense of self and identity may lead individuals to rely on primitive defense mechanisms. These mechanisms can contribute to psychological disorders such as anxiety and depression (15, 16).

While defense mechanisms are essential for adaptation, their rigid use can disrupt emotional regulation (17). Although these factors are critically important, their combined and integrative role in predicting suicidal ideation—particularly among university students as a highly vulnerable population—remains insufficiently explored. Addressing this empirical gap is essential for developing targeted preventative interventions. Therefore, the present study aimed to examine the predictive relationship between defense mechanisms, mindfulness, emotional intelligence, and suicidal ideation among female students at Islamic Azad University, Shiraz Branch, Shiraz, Iran.

2. Method

2.1. Design

A descriptive-correlational design was employed to examine the relationship between suicidal ideation, defense mechanisms, mindfulness, and emotional intelligence in female college students.

2.2. Selection and Description of Participants

The target population consisted of female students enrolled at the Islamic Azad University in Shiraz, Iran, in April and May of 2024. Participants were recruited using convenience sampling and they were selected based on predefined inclusion and exclusion criteria. The inclusion criteria were: (a) age 19 years or older, (b) female gender, (c) single marital status, (d) enrollment in a master's program in psychology, and (e) willingness to participate in the study. Exclusion criteria included: (a) unwillingness to continue participation and (b) failure to complete the questionnaires.

2.3. Sample Size Determination

The required sample size for this study was estimated based on methodological recommendations for multivariate analyses, which suggest a minimum of 10–20 participants per predictor variable (18). Considering the number of predictors included in the regression model, a minimum sample size of 80–100 participants was deemed sufficient.

2.4. Data Collection and Measurements

2.4.1. The Defense Styles Questionnaire (DSQ):

The questionnaire was revised and standardized by Andrews and colleagues (19). This 40-item questionnaire assesses 20 defense mechanisms, which are grouped into three categories: mature (four mechanisms), neurotic (four mechanisms), and immature (12 mechanisms). Items are rated on a nine-point Likert scale ranging from one (strongly disagree) to nine (strongly agree). Scores for each defense style are calculated by averaging the corresponding items. In Iran, Shabanpour and co-workers confirmed the questionnaire's reliability using test-retest and Cronbach's alpha methods. Cronbach's alpha coefficients were 0.72, 0.73, and 0.74 for mature, neurotic, and immature defenses, respectively, with a test-retest reliability coefficient of 0.82 over a four-week interval (20). The study also reported acceptable content validity, with a content validity index (CVI) of 0.86 and a content validity ratio (CVR) of 0.87 (20). In the present study, the Cronbach's alpha coefficients were 0.76, 0.66, and 0.64 for the mature, neurotic, and immature styles, respectively. The overall Cronbach's alpha coefficient for the questionnaire was 0.68.

2.4.2. Five Facet Mindfulness Questionnaire (FFMQ): Baer and colleagues developed the 39-item Five Facet Mindfulness Questionnaire (FFMQ) to assess five facets of mindfulness in daily life: observing, describing, acting with awareness, non-reactivity, and non-judging (21). Items are rated on a five-point Likert scale ranging from one (never or rarely true) to five (very often or always true) (22). Higher scores indicate greater mindfulness. A previous study reported good internal consistency for the Five Facet Mindfulness Questionnaire (FFMQ), with Cronbach's alpha coefficients of 0.75 for non-reactivity, 0.91 for describing, 0.83 for observing, 0.87 for acting with awareness, and 0.87 for non-judging (22). Validation studies conducted in Iran reported test-retest reliability coefficients ranging from $r=0.57$ to $r=0.84$. These studies also reported an acceptable content validity index (CVI=0.86) and content validity ratio (CVR=0.87) (23, 24). In the present study, Cronbach's alpha for the total scale was 0.86.

2.4.3. Emotional Intelligence Questionnaire (EIQ): The Schutte Emotional Intelligence Scale (SEIS) is a 33-item questionnaire based on the model proposed by Salovey and Mayer (25). The SEIS assesses several components of emotional intelligence, including emotion regulation,

emotional appraisal, emotional skills, and the use of emotions. It yields a total score ranging from 33 to 165. Items are rated on a five-point Likert scale from one (strongly disagree) to five (strongly agree). Items 5, 8, and 28 are reverse-scored, and higher scores indicate greater emotional intelligence. A study in Iran reported good internal consistency for the scale ($\alpha=0.91$), with a content validity index (CVI) of 0.71 and a content validity ratio (CVR) of 0.81 (26). In the present study, Cronbach's alpha coefficient for the scale was 0.76.

2.4.4. The Multi Attitude Suicide Tendency Scale (MAST): The scale developed by Orbach and co-workers is a 30-item questionnaire designed to assess suicidal tendencies in adolescents (27). The scale includes four subscales: attraction to life, repulsion by life, attraction to death, and repulsion by death. Items are rated on a five-point Likert scale ranging from one (strongly disagree) to five (strongly agree). Total scores range from 30 to 150, with higher scores indicating a greater tendency toward suicide. Scores of 30–60, 60–90, and above 90 represent low, moderate, and high levels of suicidal tendency, respectively (27). The scale demonstrated good content validity, with mean content validity ratios (CVRs) of 0.84 and mean content validity indices (CVIs) of 0.86 (28). In the present study, Cronbach's alpha coefficient for the scale was 0.76.

2.5. Procedure

Before administering the questionnaires, all participants received a clear explanation of the study objectives, the completion procedures, and their right to voluntary participation. All participants provided written informed consent. Data were collected in person from female Master's students at the Islamic Azad University of Shiraz, Iran, between April and May 2024, using a convenience sampling method. Initially, 319 students agreed to participate. After screening the returned questionnaires, 222 responses were excluded: 119 due to incomplete data and 103 due to invalid answering patterns. Consequently, data from the 97 participants who fully completed the questionnaires were included in the final analysis. Throughout the process, ethical principles were carefully observed; all responses were kept anonymous, confidential, and used solely for research purposes in aggregate form.

2.6. Data Analysis

All statistical analyses were conducted using SPSS version 26 (IBM Corp., Armonk, NY). Descriptive statistics, including means and standard deviations, were computed for all variables. Pearson's correlation coefficients were used to examine the relationships among the variables. Multiple linear regression analysis was conducted using the enter method to further investigate predictors of suicidal ideation. Potential multicollinearity among the independent variables was assessed using the variance inflation factor (VIF). A VIF value of 1 represents the absence of collinearity; values ranging from 1 to 5 indicate moderate collinearity, whereas those greater than 5 suggest substantial collinearity. All statistical tests were two-tailed, with a significance level set at $P < 0.05$.

3. Results

The participants were 97 female Master's students of psychology from the Islamic Azad University in Shiraz, Iran. The participants' average age was 23.41 years ($SD = 4.43$). Most (72%, $n = 70$) were single, while the rest (27.8%, $n = 27$) were married.

Table 1 presents the statistical indicators (Mean

and Standard Deviation) of defense mechanisms. As indicated by these descriptive findings, participants demonstrated distinct patterns across mature, neurotic, and immature defense styles, reflecting their underlying psychological defense profiles.

Building upon these indicators, Table 2 presents the descriptive statistics (means and standard deviations) for mindfulness, emotional intelligence, and suicidal ideation, along with the bivariate correlation matrix among all study variables. These correlational findings highlight preliminary significant associations among psychological coping mechanisms, emotional competencies, and clinical outcomes, providing the necessary empirical foundation for subsequent inferential testing.

Table 3 shows that suicidal ideation was positively and significantly correlated with several defense mechanisms, including rationalization, projection, denial, omnipotence, devaluation, acting-out, somatization, autistic fantasizing, layering, passive-aggression, displacement, isolation, suppression, and sublimation. Anticipation ($r = 0.583$), false otherness ($r = 0.439$), reaction formation ($r = 0.429$), rationalization ($r = 0.438$), and invalidation ($r = 0.495$) were all significantly correlated ($P < 0.001$).

Table 1: Demographic variables of the participants

Variables	Components	M	SD
Underdeveloped	Reasoning	8.38	1.66
	Projection	8.09	1.62
	Denial	7.39	1.74
	Omnipotence	7.35	1.49
	Devaluation	7.66	1.46
	Transition	6.79	1.89
	Embodiment	7.47	1.43
	Autistic Fantasizing	8.10	4.42
	Layering	6.91	1.68
	Passive Aggression	6.82	1.79
	Displacement	6.62	1.83
	Separation	7.18	1.84
Developed	Suppress	8.08	1.43
	Sublimation	8.23	1.48
	Humor	8.10	1.47
	Anticipation	7.40	1.61
Psycho-disturbed	Other False Friendship	7.49	1.35
	Reactive Formation	7.51	1.56
	Rationalization	6.73	1.69
	Invalidation	6.82	1.76

SD: Standard Deviation

Table 2: Means and Standard Deviations of the study variables

Variables	Components	M	SD
Mindfulness	Observation	35.40	5.26
	Description	28.57	4.98
	Awareness Action	27.62	7.28
	Non-judgment	28.73	5.69
	Non-reaction	28.93	4.35
	Mindfulness	154.21	23.12
Emotional Intelligence	Emotional Assessment and Expression	25.79	6.76
	Emotional Regulation	17.59	4.23
	Emotional Exploitation	15.79	21.5
	Emotional Intelligence	59.18	14.10
Suicidal Thoughts	Attraction to Life	17.44	3.01
	Non-acceptance of Life	11.54	2.28
	Attraction to Death	12.92	2.91
	Non-acceptance of Death	18.21	3.12
	Suicidal Thoughts	63.15	7.92

SD: Standard Deviation

Conversely, suicidal ideation exhibited significant negative correlations with mindfulness ($r = -0.583$) and emotional intelligence ($r = -0.564$) (both $P < 0.001$). This suggests that higher levels of these protective factors are associated with lower suicidal ideation.

As shown in Table 4, multiple regression analysis revealed that several defense mechanisms significantly and positively predicted suicidal ideation. These mechanisms were rationalization ($B = 0.16$, $P = 0.011$), projection ($B = 0.15$, $P = 0.012$), denial ($B = 0.30$, $P < 0.001$), omnipotence ($B = 0.29$, $P < 0.001$), devaluation ($B = 0.24$, $P < 0.001$), acting out ($B = 0.38$, $P < 0.001$), somatization ($B = 0.27$, $P < 0.001$), layering ($B = 0.34$, $P < 0.001$), and passive-aggression ($B = 0.38$, $P < 0.001$). Isolation ($B = 0.28$, $P < 0.001$), suppression ($B = 0.12$, $P = 0.045$), sublimation ($B = 0.13$, $P = 0.036$), anticipation ($B = 0.31$, $P < 0.001$), false-otherness ($B = 0.31$, $P < 0.001$), reaction-formation ($B = 0.28$, $P < 0.001$), rationalization ($B = 0.41$, $P < 0.001$), and invalidation ($B = 0.39$, $P < 0.001$) emerged as significant predictors of suicidal ideation.

Conversely, mindfulness ($B = -0.24$, $P < 0.001$) and emotional intelligence ($B = -0.25$, $P < 0.001$) were significant negative predictors of suicidal ideation. Autistic fantasizing ($B = 0.10$, $P = 0.08$) and humor ($B = 0.10$, $P = 0.08$) were not significant predictors of suicidal ideation.

4. Discussion

This study examined how well defense mechanisms, mindfulness, and emotional

intelligence predicted suicidal ideation among students at the Islamic Azad University in Shiraz, Iran. The findings revealed that several defense mechanisms, including justification, projection, denial, omnipotence, devaluation, acting out, somatization, layering, passive-aggression, displacement, isolation, suppression, sublimation, anticipation, false-otherness, reaction-formation, rationalization, and invalidation, directly predicted suicidal ideation. Conversely, mindfulness and emotional intelligence exhibited inverse predictive relationships. These results were consistent with previous research (7, 8, 28–30).

Di Giuseppe and colleagues reported that individuals who attempted suicide commonly used defense mechanisms such as rationalization, reaction formation, fantasy, denial, regression, and justification. However, the frequency with which these defenses were used was not significantly related to suicidal ideation (7). In contrast, Sadeghi and Mirzaeirad found positive, significant correlations between suicidal ideation and borderline personality features (e.g., identity confusion, primary defense mechanisms, reality-testing difficulties, and fear of intimacy), as well as negative, significant correlations with observation and description. Notably, primary defense mechanisms (a borderline personality component) and the description facet of mindfulness significantly predicted suicidal ideation (30).

Defense mechanisms are unconscious cognitive processes that regulate emotions by minimizing distress and promoting psychological equilibrium.

Table 3: Correlation matrix between research variables

Variables	Suicidal Thoughts	Reasoning	Projection	Denial	Omnipotence	Devaluation	Transition	Embodiment	Autistic Fantasizing	Layering	Passive Aggression	Displacement	Separation	Suppress	Sublimation	Humor	Anticipation	Other False Friendship	Reactive Formation	Rationalization	Invalidation	Mindfulness	Emotional Intelligence
Suicidal Thoughts	—																						
Reasoning	0.589	—																					
Projection	0.655	0.826	—																				
Denial	0.558	0.525	0.447	—																			
Omnipotence	0.607	0.536	0.474	0.839	—																		
Devaluation	0.573	0.454	0.376	0.855	0.716	—																	
Transition	0.520	0.347	0.298	0.809	0.645	0.855	—																
Embodiment	0.666	0.519	0.464	0.815	0.809	0.845	0.792	—															
Autistic Fantasizing	0.209	0.357	0.394	0.425	0.388	0.253	0.289	0.337	—														
Layering	0.527	0.551	0.421	0.959	0.815	0.856	0.764	0.772	0.385	—													
Passive Aggression	0.447	0.444	0.397	0.812	0.692	0.661	0.608	0.612	0.466	0.770	—												
Displacement	0.474	0.491	0.433	0.852	0.689	0.698	0.648	0.651	0.494	0.807	0.928	—											
Separation	0.533	0.497	0.452	0.838	0.732	0.706	0.626	0.674	0.496	0.814	0.875	0.926	—										
Suppress	0.633	0.557	0.505	0.925	0.897	0.798	0.726	0.842	0.447	0.900	0.732	0.771	0.816	—									
Sublimation	0.672	0.644	0.561	0.859	0.850	0.705	0.659	0.846	0.429	0.815	0.658	0.718	0.758	0.892	—								
Humor	0.275	0.349	0.166	0.134	0.078	0.128	0.045	0.134	-0.003	0.181	0.183	0.191	0.171	0.033	0.233	—							
Anticipation	0.583	0.546	0.514	0.661	0.636	0.552	0.648	0.681	0.361	0.616	0.466	0.525	0.552	0.685	0.794	0.142	—						
Other False Friendship	0.439	0.394	0.339	0.769	0.602	0.744	0.824	0.699	0.279	0.724	0.589	0.627	0.600	0.689	0.636	0.045	0.786	—					
Reactive Formation	0.429	0.378	0.334	0.780	0.613	0.759	0.830	0.722	0.283	0.733	0.586	0.625	0.601	0.699	0.648	-0.015	0.735	0.926	—				
Rationalization	0.438	0.392	0.326	0.798	0.632	0.808	0.813	0.774	0.236	0.751	0.606	0.644	0.622	0.718	0.667	0.023	0.677	0.849	0.928	—			
Invalidation	0.495	0.314	0.287	0.760	0.594	0.700	0.796	0.658	0.285	0.716	0.556	0.596	0.574	0.677	0.608	0.036	0.664	0.830	0.837	0.776	—		
Mindfulness	-0.583	-0.483	-0.401	-0.605	-0.630	-0.605	-0.656	-0.648	-0.330	-0.591	-0.659	-0.651	-0.655	-0.609	-0.631	-0.224	-0.574	-0.536	-0.529	-0.518	-0.462	—	
Emotional Intelligence	-0.564	-0.474	-0.411	-0.561	-0.577	-0.572	-0.617	-0.619	-0.390	-0.542	-0.598	-0.571	-0.582	-0.565	-0.586	-0.220	-0.542	-0.497	-0.490	-0.483	-0.472	0.881	—

Table 4: Regression results of suicidal thoughts

Predictor Variables	Beta (Estimated)	SE	T	P
Reasoning	0.16	0.062	2.60	0.011
Projection	0.15	0.06	2.51	0.012
Denial	0.30	0.056	5.40	P<0.001
Omnipotence	0.29	0.056	5.20	P<0.001
Devaluation	0.24	0.056	4.25	P<0.001
Transition	0.38	0.054	7.07	P<0.001
Embodiment	0.27	0.056	4.80	P<0.001
Autistic Fantasizing	0.10	0.057	1.76	0.08
Layering	0.34	0.055	6.22	P<0.001
Passive Aggression	0.38	0.054	7.02	P<0.001
Displacement	0.37	0.053	6.96	P<0.001
Separation	0.28	0.056	5.01	P<0.001
Suppress	0.12	0.06	2.01	0.045
Sublimation	0.13	0.062	2.11	0.036
Humor	0.10	0.057	1.76	0.08
Anticipation	0.31	0.054	5.70	P<0.001
Other False Friendship	0.31	0.055	5.64	P<0.001
Reactive Formation	0.28	0.011	25.04	P<0.001
Rationalization	0.41	0.052	7.89	P<0.001
Invalidation	0.39	0.053	7.36	P<0.001
Mindfulness	-0.24	0.057	-4.19	P<0.001
Emotional Intelligence	-0.25	0.058	-4.31	P<0.001

SE: Standard Error

They accomplish this by altering emotional perception, narrowing attention, and distancing individuals from reality (5). While these mechanisms keep distressing thoughts outside of conscious awareness, immature or neurotic defenses fail to resolve underlying emotions (4). In contrast, rather than attempting to modify internal content, mindfulness fosters acceptance, decentering, and a nonjudgmental stance toward thoughts and emotions. By enhancing emotional tolerance and reducing reactivity, mindfulness has been shown to mitigate suicidal ideation (7, 8, 28–31).

Students with higher emotional intelligence experience less hopelessness and loneliness and are more likely to interpret problems as opportunities for insight, adaptation, or growth. This resilience fosters optimism, future-oriented thinking, and meaning-making, which buffer psychological harm and reduce suicidal ideation (32). Conversely, reliance on denial and omnipotence weakens the ability to cope with stress and adapt, thereby heightening anxiety, frustration, and vulnerability to suicidal thoughts (6).

Passive aggression and false interrelations can also foster alienation. Individuals who struggle with self-control and emotional regulation may prioritize

rigid internal standards over psychological well-being and interpersonal engagement. This tendency can restrict spontaneity and social connectedness, as these individuals try to avoid criticism or the perceived loss of control. These patterns have been associated with higher levels of suicidal ideation in previous studies (31–33). Similarly, individuals who rely on reaction formation and rationalization often exhibit emotional dysregulation, delayed gratification, unrealistic familial expectations, and emotional suppression. These behaviors place strain on interpersonal functioning. Their heightened need for control, driven by a fear of emotional breakdown, can directly contribute to suicidal thinking (34).

Furthermore, proactive defenses are associated with negative interpersonal attributions, which reduce empathy and emotional warmth. Dysregulated negative affect further intensifies suicidal ideation. Similarly, acting out and somatization defenses are associated with hopelessness, loneliness, and a pessimistic cognitive style—factors that are exacerbated by trauma or adverse environments, which simultaneously increase psychological strain and intensify suicidal ideation. Displacement and isolation make individuals emotionally fragile and prone to anxiety and maladaptive coping. Stressful events, emotional turmoil, psychological damage,

negative evaluations, misinterpretations, cognitive distortions, and perceived helplessness increase maladaptive behaviors and ultimately suicidal ideation (35).

4.1. Limitations

This study had some limitations. Because the present study was a descriptive-correlational study and the sample was drawn exclusively from students at the Islamic Azad University, Shiraz, Iran, the findings should be interpreted with caution. Causal relationships cannot be established, and the generalizability of the results may be limited. Nevertheless, the observed predictive associations between suicidal ideation and emotional intelligence, mindfulness, and specific defense mechanisms, including denial, omnipotence, devaluation, acting out, somatization, layering, passive aggression, displacement, isolation, anticipation, reaction formation, and rationalization, have important practical implications.

5. Conclusions

The results of the present study indicated that denial, omnipotence, devaluation, acting-out, somatization, layering, passive-aggression, displacement, isolation, anticipation, false-otherness, reaction-formation, and rationalization are significant direct predictors of suicidal ideation. Future studies are recommended to replicate these findings in other cities and academic disciplines and to examine additional predictors, such as parental emotional divorce, family cohesion, and social health. The findings support implementing emotional intelligence and mindfulness-based training programs, involving qualified and experienced counselors, and applying these results in clinical and counseling settings as potential strategies for reducing suicidal ideation.

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Declaration of AI

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Authors' Contributions

Zahra Zarei: Contributions to the conception and design of the work; the acquisition, analysis, and interpretation of data for the work; drafting the work. **Mahin Eksir:** Contributions to the acquisition, analysis, and interpretation of data for the work; drafting the work and reviewing it critically for important intellectual content. **Bahareh Boustani:** Contributions to the design of the work; drafting the work and reviewing it critically for important intellectual content. **Maryam Siامي Alighialou:** Contributions to the conception and design of the work; the acquisition, analysis, and interpretation of data for the work; drafting the work. **Atefeh Pouraskar Borazjani:** Contributions to the conception of the work; drafting the work and reviewing it critically for important intellectual content. All authors have read and approved the final version of the manuscript and agree to be accountable for all aspects of the work, ensuring that any questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Ethical Approval

The Ethics Review Board of Islamic Azad University, Kerman Branch, Kerman, Iran approved the present study with the code of IR.IAU. SHIRAZ.REC.1403.107. Also, written informed consent was obtained from the participants.

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