



University of Hormozgan

## The Relationship between Spiritual Intelligence, Neurotic Personality and Differentiation with Suicidal Thoughts in College Students

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### Article Info

### ABSTRACT

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**Objective:** The primary objective of this study was to delve into the intricate interplay between spiritual intelligence, neurotic personality, and differentiation concerning suicidal ideation among students.

**Methods:** The methodology employed in this research was of a descriptive nature, falling under the category of a survey study. The target population for this study encompassed all students residing in the city of Tabriz. A total of 250 students were carefully chosen to participate, constituting the sample size for this research endeavor. The selection process was meticulously carried out utilizing a random cluster sampling technique. To gather relevant data, instruments such as the Beck Scale for Suicidal Ideation (BSSI), NEO Five Factor Inventory (NEO-FFI), Spiritual Intelligence Self-Report Inventory(SISRI; King, 2008), as well as the Differentiation of Self Inventory (Skowron and Friedlander, 1998) were administered.

**Results:** The normality of the data distribution was assessed using the Kolmogorov-Smirnov test, while research hypotheses were scrutinized via the Pearson correlation test and multiple regression analysis. All computations were meticulously conducted using the SPSS version 18 software. The outcomes of the study unequivocally revealed a notable inverse correlation between spiritual intelligence and suicidal thoughts among students. Conversely, a noteworthy positive association was observed between neurotic personality traits and suicidal ideation in students. Furthermore, a substantial inverse relationship was identified between levels of differentiation and suicidal ideation among students.

**Conclusions:** Totally, approximately 40% of the variance in suicidal ideation among students was elucidated by the combined influences of spiritual intelligence, neurotic personality traits, and levels of differentiation.

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## Introduction

Suicide, a phenomenon pertaining to mental health issues, is recognized as a significant concern in society. As reported by the World Health Organization, suicide stands as the third leading cause of mortality among individuals aged between 15 and 44 years. Recent data indicates a notable rise in suicide rates, particularly among teenagers and young adults, highlighting a troubling trend (Vermaghani et al., 2018). The act of suicide is essentially described as a deliberate process aimed at terminating one's own life, encompassing various forms such as completed suicide, suicide attempts, and suicidal ideation (Atkinson et al., 2021).

Numerous scholars view suicide as a continuum, commencing from the absence of suicidal thoughts and progressing towards ideation, attempted suicide, and ultimately, completed suicide. Suicidal ideation holds a pivotal position in this spectrum, serving as a crucial stage with the potential to foreshadow actual suicide (Aryapurhan& Shaibani, 2021). It is evident that suicidal ideation represents a critical juncture in the trajectory towards suicide, acknowledged both as a prevalent occurrence and a significant risk factor for suicide attempts and completed suicides. Consequently, the identification of individuals experiencing suicidal ideation emerges as a key predictive element that can facilitate suicide prevention efforts. Various factors are implicated in the development of suicidal ideation, with spiritual intelligence being recognized as a contributing element. Several studies have underscored the role of spirituality in relation to suicidal ideation (Ahmadi & Davari, 2019; Mostafaei & Ashrafi, 2019). The concept of spiritual intelligence was initially introduced by Emmons (2000), who defined it as the utilization of spiritual insights to effectively address life's challenges and attain objectives. Emmons posited that spirituality can be viewed as a form of intelligence due to its capacity to forecast an individual's performance and adaptability, thereby suggesting competencies that enable problem-solving (Sherkat et al., 2019). Spiritual intelligence can be construed as the adaptive utilization of spiritual knowledge to navigate daily predicaments and accomplish aims. It encompasses a range of abilities through which individuals integrate spiritual resources into their values and qualities, thereby enhancing daily functioning and psychological well-being. This construct comprises five dimensions, namely awareness, righteousness, meaning, superiority, and truth (RanjeDoost, 2019).

Zohar and Marshall (2000) assert that spiritual intelligence empowers individuals to assign significance and worth to their challenges, facilitating their resolution and enabling them to contextualize their actions and existence within a broader, more profound framework of meaning. Hence, the role of spiritual intelligence in the realm of suicidal ideation becomes apparent, as it imbues life and events with meaning and value, potentially influencing individuals' perceptions and decisions.

Suicidal thoughts appear to be strongly predicted by some personality qualities, such as neuroticism, in addition to spiritual intelligence. There is a strong and direct association between depression and suicide attempts since neuroticism is the underlying element for both anxiety and depression, as supported by the findings of multiple research (Chatripour et al., 2014). This suggests a connection between neuroticism and suicidal ideas. Numerous research has demonstrated the connection between neuroticism and suicide, including Aftab et al. (2019) and Mousavi et al. (2018).

The term "neuroticism" describes a person's propensity for feeling tense, anxious, hostile, narcissistic, timid, depressed, and low in self-esteem; these traits all contribute significantly to an individual's propensity for and actuality of suicide (Haghshenas, 2022). This index is based on negative feelings including fear, despair, excitement, wrath, guilt, and a persistent, all-encompassing sense of exhaustion. People who exhibit neuroticism are more likely to hold irrational beliefs, struggle to control their impulses, and be less willing to compromise with others and in different situations because destructive emotion affects how an individual adapts to their surroundings. convey tension (Fathi Ashtiani, 2021).

Numerous studies on personality traits and suicide have been conducted. According to a study by Khosravi and Kasaieyan (2020), among others, suicidal thoughts and neuroticism are significantly correlated. According to McDaniel et al. (2020), those who were low in neuroticism and high in extraversion attempted suicide at a higher rate than those who were low in neuroticism and high in extraversion. According to Mousavi et al. (2018), compared to the control group, women who committed chemical suicide scored lower on inventiveness, trust, inclination, inhibition, and avoidance and higher on neuroticism and helplessness. According to research by Karami et al. (2016), there is a strong correlation between soldiers' suicidal thoughts and neuroticism and psychotic personality traits. According to Birami et al. (2012), neuroticism and depression, suicidal

ideation, and hopelessness are significantly positively correlated. According to Huang et al. (2019), extraversion protects against suicide ideation while neuroticism, psychoticism, impulsivity, and violence are risk factors. According to Herrero et al. (2018), neuroticism can be viewed as a risk factor for suicidal thoughts as well as having a beneficial effect on suicidal thoughts.

Additionally, some studies have demonstrated a strong and substantial indirect association between suicidal thoughts and the attribute of neuroticism (Aftab et al., 2019). Additionally, Liao et al. (2022) demonstrated how neuroticism might indirectly influence suicidal self-harm through four pathways with numerous mediation effects: depression, expressive suppression-depression, cognitive reappraisal-depression, and cognitive reappraisal-expressive suppression-depression. According to the available literature, it has been suggested that patterns of differentiation, such as self-differentiation, play a crucial role in influencing individuals' social performance, as well as their levels of anxiety and depression. Moreover, there exists a noteworthy correlation between the issue of differentiation in adulthood and the deficiency in problem-solving skills, along with the ability to cope with severe psychological issues and suicidal tendencies (Vaghei et al., 2016; Aghajani et al., 2022). It can thus be posited that in addition to factors like spiritual intelligence and neuroticism, differentiation may also be intricately linked to the presence of suicidal ideations. As posited by Bowen (1978), it is argued that all forms of mental and physical ailments, along with social dilemmas, are closely intertwined with the degree of self-differentiation (as cited in Timmons et al., 2017). Individuals exhibiting a high level of self-differentiation demonstrate the capacity to assess situations thoughtfully, act independently, and display reduced emotional reactivity. They possess a clear understanding of their own identity and viewpoints, thereby enabling them to maintain harmony in their interpersonal interactions. The development of differentiation, stemming from psychological autonomy and emotional maturity, represents a continual and dynamic process whereby individuals strive to uphold their psychological wholeness; possessing this trait results in lower levels of social anxiety (Pleg&Zoabi, 2014).

The phenomenon of suicide stands as a significant psychological and social detriment, with the identification and mitigation of its prevalence serving as a key objective for numerous societies. Post-1950s, there has been a noticeable surge in suicidal behaviors worldwide, encompassing suicidal ideations, suicide attempts, self-harming actions, and completed suicides, to the extent

that between 1950 and 1990, the rate of suicidal behaviors among adolescents aged 15-19 has tripled (Berardelli et al., 2019). While studies have explored the association between suicidal ideations and factors like spiritual intelligence, neurotic personality, and differentiation, a comprehensive understanding necessitates the examination of various variables within a statistically representative sample. Thus, the present study endeavors to explore the interplay between spiritual intelligence, neurotic personality, differentiation, and suicidal thoughts among student populations.

## Material and Methods

The present study is characterized by its descriptive and survey-based nature and the content of its work. Conversely, this study is pragmatic in terms of its objectives. The statistical population for this study comprises all students in Tabriz city. A sample of 250 students from Tabriz city was chosen based on the research conditions. The sampling method employed was stratified random sampling. Each of the national universities, Payam Noor, and Islamic Azad University in Tabriz city were treated as separate classes, and sampling was conducted proportionally from each university. Specifically, 84 individuals from Payam Noor University, 83 from Tabriz University, and 83 from Islamic Azad University of Tabriz were chosen as participants. Non-profit universities were excluded from the sample due to greater dispersion and a lower student population.

To collect data, Beck Scale for Suicidal Ideation (BSSI), NEO Five Factor Inventory (NEO-FFI), Spiritual Intelligence Self-Report Inventory (SISRI; King, 2008), as well as the Differentiation of Self Inventory (Skowron and Friedlander, 1998) were used.

**Beck Scale for Suicidal Ideation (BSSI):** The Beck Scale for Suicidal Ideation is a 19-question self-testing tool. This questionnaire was prepared in order to reveal and measure the intensity of attitudes, behaviors and planning to commit suicide during the past week. The scale is based on 3 points from 0 to 2. A person's overall score is calculated based on the sum of scores, which ranges from 0 to 38. The samples studied by Beck included teenagers and adults who were divided into hospitalized and clinic patients. Beck's suicidal ideation scale has a high correlation with standardized clinical tests of depression and suicidal tendencies. The correlation coefficients ranged from 0.90 for hospitalized patients and 0.94 for clinic patients. Also, this scale was correlated with Beck depression suicide scale from 0.58 to 0.69. In addition, it was correlated with

Beck's hopelessness scale and Beck's depression questionnaire from 0.64 to 0.75. BSSI has high reliability. By using Cronbach's alpha method, coefficients of 0.87 to 0.97 and by using test-retest method, the reliability of the test is 0.54. Anisi et al. (2013) evaluated the reliability and validity of BSSI in a study on 100 male subjects with an age range of 19 to 28 years who were selected by available sampling method. The results showed that the Beck scale had a correlation of 0.76 with the depression scale of the Goldberg test, and the validity of the scale was 0.95 using the Cronbach's alpha method and 0.75 using the two-half method. Therefore, there is internal validity, test validity and concurrent validity in this scale. Suicidal ideation questions correspond to definitions of suicide. The evidence indicates that the scale of suicidal thoughts can be a valid option for measuring suicidal thoughts in the form of self-measurement.

**NEO Five Factor Inventory (NEO-FFI):** In 1989, Costa and McCrae designed a short form of a five-factor questionnaire to measure the five main factors of personality. This questionnaire has 60 items and only measures the five main factors of personality, while its long form also measures its three dimensions in addition to the five factors. This questionnaire evaluates five personality traits (neuroticism extroversion openness agreeableness and conscientiousness) of people. Kiamehr (2002) validated the short form of this questionnaire on 380 students and reported the correlation between the long and short form between 0.45 and 0.71. Also, in a 7-year longitudinal study, reliability coefficients of 0.51 to 0.82 were obtained for eighteen subscales of dimensions of neuroticism, extroversion, and openness, and reliability coefficients of 0.63 to 0.81 for five main factors were obtained in men and women (Costa & McCrae, 1992). The research conducted by Anisi et al. (2013) in examining the validity of this questionnaire using Cronbach's alpha method showed that the characteristics of conscientiousness and neuroticism were alpha 0.83 and 0.80, respectively, and agreeable personality traits. and extraversion had alpha values of 0.60 and 0.58, respectively, but openness had an acceptable internal consistency of 0.39. In addition, in the concurrent validity study, it was observed that the correlation coefficient of neuroticism and extraversion in the Neo questionnaire with neuroticism and extraversion in the Eysenck questionnaire was 0.68 and 0.47, respectively. Also, in Atash Rooz research (2016) using internal consistency method, Cronbach's alpha coefficient for each of 5 traits: neuroticism, extroversion, openness, agreeableness and conscientiousness were 0.74, 0.55, 0.27, 0.38 and 0.77 were obtained respectively.

**Spiritual Intelligence Self-Report Inventory (SISRI):** Spiritual Intelligence Self-Report Inventory (SISRI) was designed and developed by King in 2008. This questionnaire has 24 items and four subscales: critical existential thinking, personal meaning generation, transcendental awareness, and expansion of the state of consciousness. The higher a person scores in this questionnaire, the more spiritual intelligence he has.

Its grading range is based on a five-point Likert scale, which is graded from 0 to 4. The marking method for question number 6 is reversed.

The subscales of this questionnaire are calculated as follows:

Critical Existential Thinking: This subscale has 7 questions and its total score is between 0 and 28. The questions of this subscale are: 1, 3, 5, 9, 13, 17, 21

Personal Meaning Production: This subscale has 5 questions and its total score is between 0 and 20. The questions of this subscale are: 7, 11, 15, 19, 23

Transcendental Awareness: This subscale has 7 items and its total score is between 0 and 28. The questions of this subscale are: 2, 6, 10, 14, 18, 20, 22

Conscious State Expansion: This subscale has 5 items and its total score is between 0 and 20. The questions of this subscale are: 4, 8, 12, 16, 24

In the research of Rakib et al. (2009), the reliability of this scale was estimated using Cronbach's alpha coefficient of 0.88. The face and content validity of the scale was confirmed by psychological experts. To estimate the convergent validity, Bonab's Spiritual Experience Questionnaire was used simultaneously, and the correlation coefficients of these two questionnaires were 0.66. Exploratory factor analysis and first-order confirmatory factor analysis were used to calculate the construct validity of the scale. The obtained results showed that this scale is a reliable tool for measuring spiritual intelligence and due to its validity and reliability, it can be used in educational and research environments such as universities.

**Differentiation of Self Inventory:** The differentiation questionnaire was prepared by Skowron and Friedlander (1998) and the final test was made by Jacksoner based on Bowen's theory. This questionnaire is self-reported and is used to measure the differentiation of people, and its main focus is on important life connections and relationships with people of the main family. The questionnaire includes 46 items and 4 subscales of Emotional Reactivity (11 questions), IPosition (11 questions), Emotional Cutoff (12 questions) and Fusion with Others (12 questions). The

scoring method of this scale is in the form of a 6-point Likert scale (not at all true for me = 1 to completely true for me = 6).

The Kolmogorov-Smirnov test was used to check the normality of the data, and the Pearson correlation test and multiple regression analysis were used to check the relationship between the variables. The data was analyzed using SPSS version 18 software.

## Results

Of the total sample, 41.2% were men and 58.8% were women. 71.2% were single and 28.8% were married. The educational level was 53.6% bachelor degree, 35.2% master's degree and 11.2% doctorate. The average age of the respondents was 27.06 years, the lowest value was 19 and the highest value was 47 years.

For the research variables, the mean, standard deviation, skewness, kurtosis, minimum and maximum indices were calculated and listed in Table 1. The mean of suicidal thoughts was 15.37, the lowest value was zero and the highest value was 38. The average spiritual intelligence was 54.96, the lowest value was 16 and the highest value was 82. The mean of neurotic personality was 21.53, the lowest value was 3 and the highest value was 44. The mean difference was 201.11, the lowest value was 49 and the highest value was 258.

**Table 1.** Descriptive indices of research variables

Variable	Mean	SD	Skewness	Kurtosis	Min.	Max.
Suicidal Thoughts	15.37	8.19	0.39	-0.09	0	38
Spiritual Intelligence	54.96	12.54	-0.35	-0.06	16	82
Neurotic Personality	21.53	8.03	0.21	0	3	44
Differentiation	201.11	42.43	-1	1.03	49	258

Kolmogorov-Smirnov test was used to check the normality of the distribution of variables. According to the obtained significance levels, it is concluded that all variables have a normal distribution (significance level greater than 0.05).

**Table 2.** The results of the Kolmogorov-Smirnov test to check the normality of the distribution of variables

Variable	Kolmogorov-Smirnov Z	P
Suicidal Thoughts	0.88	0.41

Spiritual Intelligence	0.80	0.53
Neurotic Personality	0.96	0.31
Differentiation	1.24	0.09

Pearson's correlation test was used to check the relationship between variables. The results are given in Table 3. The results of the Pearson correlation test showed that there is a significant inverse relationship between spiritual intelligence and suicidal thoughts in students (the Pearson correlation coefficient is -0.591 and the significance level of the test is 0.001). There is a significant positive relationship between neurotic personality and suicidal thoughts in students (Pearson's correlation coefficient is 0.447 and the significance level of the test is 0.001). There is a significant inverse relationship between differentiation and suicidal thoughts in students (Pearson's correlation coefficient is -0.414 and the significance level of the test is 0.001). Multiple linear regression has been used to predict suicidal thoughts in students based on spiritual intelligence, neurotic personality and differentiation. The multiple correlation coefficient is 0.63 and the determination coefficient is 0.40. In this model, 40% of the variance of suicidal thoughts in students is explained by spiritual intelligence, neurotic personality and differentiation. One of the assumptions of regression is that the criterion variable does not have autocorrelation and the errors are independent of each other. This condition is tested by Durbin-Watson test. Durbin-Watson value is equal to 2.06. Because this value is between 1.5 and 2.5, it is concluded that the criterion variable does not have autocorrelation and the errors are independent of each other. In order for the regression model to be significant, there must be a linear relationship between the criterion variable and the predictor variables. F test was used to investigate the existence of a linear relationship between the criterion variable and predictor variables. The significance level of F test is 0.001. Considering that the significance level of the F test is less than 0.05, it shows that there is a significant linear relationship between the criterion variable and the predictor variables (Table 3).

**Table 3.**Multiple linear regression results

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Durbin-Watson	F	P
0.63	0.40	0.39	2.05	54.69	0.001

Tolerance index and VIF were used to check the condition of non-collinearity between independent variables. Considering that the tolerance index and VIF are close to one, it is concluded that the independent variables lack collinearity. Unstandardized coefficients and standardized coefficients along with their significance levels are presented in Table 5.

**Table 5.**Regression coefficients

Variable	Unstandardized coefficients		Standardized coefficients Beta	T value	P	Tolerance	VIF
	B	Std. error					
Constant	35.86	3.54	-	10.11	0.001	-	-
Spiritual Intelligence	-0.28	0.042	-0.43	-6.79	0.001	0.603	1.65
Neurotic Personality	0.13	0.062	0.13	2.20	0.029	0.653	1.53
Differentiation	-0.039	0.01	-0.20	-3.78	0.001	0.838	1.19

According to the table 5, it is concluded that spiritual intelligence has a significant inverse effect on students' suicidal thoughts ( $p = 0.001$  and beta = -0.43). Neurotic personality has a significant positive effect on students' suicidal thoughts ( $p = 0.029$  and beta = 0.13) and differentiation has a significant inverse effect in students' suicidal thoughts ( $p = 0.001$  and beta = -0.20). Spiritual intelligence with a standardized coefficient (beta) of 0.43 has the greatest impact on students' suicidal thoughts.

## Discussion

The outcome derived from the initial hypothesis indicates a correlation between spiritual intelligence and suicidal ideation among students. The findings align with the studies conducted by Aryapouran and Shibani (2021), Ahmadi and Davari (2019), Mustafaei and Ashrafi (2019), Mikaili and Samadifard (2019), Rahimi and Asadollahi (2015), Esigmelski et al. (2020), as well as Pent and Sirosta (2019).

To elaborate on this outcome, reference can be made to Bullock's (2012) perspective. Bullock (2012) posits that spiritual intelligence is a factor that can impact individuals' inclination towards risky behaviors. He suggests that individuals with high spiritual intelligence experience a sense of assurance, peace, and profound spiritual happiness through recognizing the divine support and grace, leading to reduced tendencies towards suicidal thoughts amidst life's challenges. This outlook is further supported by Pent and Sirosta (2019), who demonstrated the positive influence of spiritual intelligence on students' mental well-being. Moreover, scholars assert that spiritual intelligence aids in coping with setbacks and serves as a coping mechanism for maladaptive thoughts, thereby enhancing inner harmony and diminishing suicidal ideation. Esigmelski et al.

(2020) also indicated the significant impact of spirituality and religion on the incidence of suicide attempts.

In a broader context, the emotional bond between an individual and the divine fosters a sense of security, the pursuit of closeness to the divine, and the fear of detachment from the divine. Consequently, students who cultivate a connection with the divine are likely to mitigate suicidal thoughts during times of distress by perceiving the divine as a source of solace and support (Kasiba et al., 2014). In essence, seeking refuge in the divine during psychological turmoil can alleviate such issues, as attachment to the divine is associated with resilience, thereby enabling students to combat negative thoughts, including suicidal ideation, by relying on their faith.

In brief, a person may experience mental health challenges such as anxiety, loneliness, and existential crisis when their level of spiritual intelligence is inadequate. The optimal quality of life remains unattainable without spiritual intelligence, as it is essential for the holistic development of an individual encompassing biological, psychological, and social aspects. Being endowed with spiritual intelligence provides an individual with a profound sense of assurance, tranquility, and profound spiritual bliss by connecting them to the omnipresent support and benevolence of the divine entity. The pivotal role of spiritual intelligence is evident in coping with stress, enhancing mental well-being, and mitigating mental health disorders. Additionally, spiritual intelligence correlates significantly with combating depression, enhancing self-esteem and self-regulation, serving as a prevalent coping mechanism for adversities.

The results derived from the second hypothesis indicate a correlation between neurotic traits and suicidal ideation among students. The outcomes align with the studies conducted by Khosravi and Kasaeiyan (2020), Ahmadi and Davari (2019), Aftab et al. (2019), Mousavi et al. (2017), Karami et al., Liao et al. (2022), Tyrer et al. (2022), McDaniel et al. (2020), Huang et al. (2019), Herrero et al. (2018).

In elucidating the findings, it can be posited that individuals with neurotic tendencies grapple with negative emotions, feelings, and thoughts including melancholy, apprehension, anger, hostility, low self-worth, anxiety, and insecurity, thereby encountering difficulties in navigating life challenges effectively, rendering them more vulnerable to life's adversities. Research by McDaniel et al. (2020) suggests that individuals with lower neuroticism levels exhibit a higher prevalence of suicide attempts compared to their counterparts with higher neuroticism levels. Furthermore,

Karami et al. (2016) demonstrated a substantial association between neurotic personality traits and suicidal inclinations among military personnel.

Drawing upon the research and findings, it can be inferred that individuals with neurotic inclinations exhibit limited adaptability to their environment, potentially resorting to suicide as a maladaptive strategy to alleviate tension and anxiety due to their heightened susceptibility to life's tribulations, seeking an escape from their challenges by self-elimination.

Moreover, individuals characterized by high levels of neuroticism tend to harbor irrational beliefs and cognitive distortions, responding impulsively and emotionally to issues due to their insecurities and chronic anxiety, thereby displaying inadequate coping mechanisms under stressful conditions. Consequently, suicide emerges as an impulsive and ineffectual approach to confronting adversities.

The outcome derived from the third hypothesis indicated a correlation between differentiation and suicidal ideation among students. This finding aligns with the studies conducted by Aghajani et al. The justification for this outcome suggests that individuals lacking emotional autonomy and excessively reliant on external support may struggle to cope with life stressors, potentially resulting in suicidal behaviors (Akhli et al., 2016). Typically, individuals with lower levels of self-differentiation exhibit higher susceptibility to anxiety, intense emotional reactions, and emotional entrapment, leading to compromised self-worth and decision-making influenced by emotions during challenging circumstances. Conversely, those with higher self-differentiation can effectively separate emotions from rationality, utilizing their cognitive abilities to tackle life challenges. Individuals with lower self-differentiation levels may experience anxiety and emotional instability when confronted with stressors, resorting to maladaptive coping mechanisms like suicide. Previous research by Aghajani et al. (2001) and Akhli et al. (2016) similarly highlighted the negative correlation between self-differentiation and suicidal tendencies in female students. Moreover, Bowen (1978) emphasized the essential role of self-differentiation in psychological adjustment and interpersonal relationships, underscoring that low differentiation levels contribute to issues such as chronic anxiety and emotional reactivity.

The result demonstrated that spiritual intelligence, neurotic personality traits, and differentiation can serve as predictors of suicidal ideation in students, aligning with the findings of Mikaili and Samadifard (2019) and Aftab et al.

Suicidal ideation encompasses a spectrum of self-destructive thoughts, ranging from contemplation of ending one's life to actual suicide attempts. Considered a critical mental health indicator, suicidal thoughts are influenced by various factors including age, gender, marital status, economic circumstances, family dynamics, substance abuse, parental conflicts, lack of social support, mental health disorders, and physical ailments (Sepehrinejad&Hatmian, 2017). Suicide is a complex outcome resulting from the interplay of multiple elements such as social, environmental, temperamental, and individual factors. Therefore, if the analysis of this hypothesis confirms that spiritual intelligence, neurotic personality traits, and differentiation can predict suicidal ideation in students.

In the explication of this outcome, it can be posited that individuals draw upon spiritual intelligence to access spiritual capacities and resources for critical decision-making and contemplation of existential concerns. Embracing the belief in enduring resilience in the face of challenges fosters a sense of security and serenity. This conviction in divine assistance in problem-solving engenders hopefulness, mitigating the emergence of anxiety, depression, and suicidal ideation.

The concept of differentiation, functioning within individuals, denotes the capacity to delineate emotional processes from rational processes and maintain a harmonious equilibrium between them (Goldenberg & Goldenberg, 2022). Mastery over emotional responses in navigating life's circumstances enables individuals to devise apt solutions, thus averting the onset of negative emotions like suicidal thoughts. Conversely, an imbalance between emotions and rationality precipitates negative emotions such as depression and suicidal tendencies.

Numerous studies have elucidated that neuroticism serves as a foundational element contributing to depression, with a robust and direct link between depression and suicide attempts (Shah et al., 2011). Moreover, neuroticism is identified as a factor posing a threat to mental well-being, thereby instigating a proclivity towards suicidal behaviors. Independent investigations by Mikaili and Samadifard (2019), Aftab et al. (2019), and Akhli et al. (2016) have demonstrated that spiritual intelligence, neuroticism, and differentiation can respectively forecast narcissism and suicidal ideation.

Based on the findings of this study, it is recommended that personality workshops and seminars be conducted for students, with an emphasis on identifying students' personality profiles upon university enrollment to preempt potential future issues and enhance counseling services.

Furthermore, nurturing and promoting spiritual intelligence and differentiation among students throughout their academic tenure, alongside organizing regular classes and lectures delivered by seasoned academicians in this domain, could prove efficacious in preventing or ameliorating certain behavioral dysfunctions.

#### **Data availability statement**

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

#### **Ethics statement**

The studies involving human participants were reviewed and approved by ethics committee of Payam Noor University.

#### **Author contributions**

All authors contributed to the study conception and design, material preparation, data collection and analysis. All authors contributed to the article and approved the submitted version.

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#### **Conflict of interest**

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

#### **References**

Aftab, R., Barmas, H. & Abol-Maali Al-Hosseini, Kh. (2019). Prediction of suicidal ideation based on five personality traits with the mediation of defense mechanisms. *Clinical Psychology Quarterly*, Year 11, Number 3. pp. 11-24.

Aghajani, Saifolah; Rahim Zadegan, Shiva; Taheri, Hassan (2022). Investigating the relationship between suicidal tendency and self-differentiation and cognitive flexibility in female students. *Knowledge and research in applied psychology*, online publication.

Ahmadi, Heshmatullah & Davari, Rahim (2019). Structural model of personality traits with the mediation of spirituality in suicidal tendency and substance abuse. *Thought and Behavior Quarterly in Clinical Psychology*, (51), 67-77.

Aryapouran, Saeed & Shibani, Hossein (2021). Suicidal thoughts in college students in the period of covid-19: the role of attachment to God, spiritual well-being and psychological resilience. *Culture in Islamic University*, 11(3), 486-465.

Atkinson, Rita; Hoeksma, Susan Nolen; Bam, Daryl; Smith, Edward and Atkinson, Richard (2021). Hilgard's field of psychology. Translation: Reza Zamani, Mehrdad Beyk, Behrouz Birshak, Mohammad Naghi Brahni and Mehrnaz Shahrarai. Tehran: Rushd.

Berardelli, I.; Sarubbi, S.; Rogante, E.; Hawkins, M.; Cocco, G. Erbuto, D.; Lester, D. & Pompili, M. (2019). The Role of Demoralization and Hopelessness in Suicide Risk in Schizophrenia: A Review of the Literature. *Medicina (Kaunas, Lithuania)*, 55(5), 200-215.

Birami, Mansour; Iqbal, Ali & Qolizadeh, Hossein (2012). The interaction of personality factors with symptoms of depression, hopelessness and suicidal thoughts among students. *Medical Journal of Tabriz University of Medical Sciences*, 34(1), 15-28.

Bowen, M. (1978). *Family treatment in clinical practice*. New York: Jason Aronson.

Bullock, M.; Nadeau, L., & Renaud, J. (2012). Spirituality and Religion in Youth Suicide Attempters' Trajectories of Mental Health Service Utilization: The Year before a Suicide Attempt. *J Can Acad Child Adolesc Psychiatry*, 21(3), 186-93.

Cassibba, R.; S. Papagna, M. T.; Calabrese, E.; Costantino, A., & Paterno P. (2014). The role of attachment to God in secular and religious/spiritual ways of coping with a serious disease". *Mental Health, Religion & Culture*, 17(3), 252-261.

Chatripour, F., Kikhaoni, Sattar; Saidkhani Nahal, Ali (2014). Comparison of suicidal thoughts and depression in healthy and suicidal people in Ilam province in 2010-2019. *Journal of Ilam University of Medical Sciences*, 21(1), 47-53.

Emmons, R. A. (2000). Is spirituality an intelligence? Motivation, cognition, and the psychology of ultimate concern. *The International Journal for the psychology of Religion*, 10(1), 3-26.

Fathi Ashtiani, Ali (2021). Psychological tests, personality evaluation and mental health. Tehran: Ba'ath. Tehran.

Goldenberg, Irene and Goldenberg, Herbert (2022). Family Therapy. Translation: Hamidreza Hossein Shahi Barvati, Siamak Naqshbandi and Elham Arjamand. Tehran: Rovan.

Haqshanas, Hassan (2022). NEO-FFI + NEO-PI-R five-factor personality test package: contains the five-factor personality plan book. Tehran: Psychometry.

Herrero, G.; Meca, S.; Muñoz, Á.; Aparicio, R., & Mateu, N. (2018). Neuroticism and suicidal thoughts: a meta-analytic study. *Search life-sciences literature*, 9 (92), 13-24.

Huang, Y.; Kuang, L.; Wang, W.; Cao, J., & Xu, L. (2019). Association between personality traits and risk of suicidal ideation in Chinese university students: Analysis of the correlation among five personalities. *Psychiatry Research*, 272, 93-99.

Karami, Jahangir; Hatamian, Peyman and Moradi, Asieh (2016). The relationship between neuroticism and psychotic personality traits with the tendency of soldiers to commit suicide in military barracks. *Journal of Military Medicine*, 19(2), 157-152.

Khosravi, M. & Kasaeiyan, R. (2020). The relationship between neuroticism and suicidal thoughts among medical students: Moderating role of attachment styles. *J Family Med Prim Care*, 9(6), 2680–2687.

Liao, C.; Gu, X.; Wang, J.; Li, K.; Wang, X.; Zhao, M., & Feng, Z. (2022). The Relation between Neuroticism and Non-Suicidal Self-Injury Behavior among College Students: Multiple Mediating Effects of Emotion Regulation and Depression. *Int. J. Environ. Res. Public Health*, 19(5).

Lin C. (2015). The Relationships among Gratitude, Self- Esteem, Depression, and Suicidal Ideation among Undergraduate Students. *Scand J Psychol*, 56(6), 700-707.

McDaniel, C. J.; DeShong, H. L.; Rufino, K., & Nadorff, M. R. (2020). The Synergistic Effects of Neuroticism and Extraversion on Suicidal Ideation, Single Attempts, and Multiple Attempts in an Inpatient Sample. *Journal of Personality Disorders*, 36(6).

Mikaili, Nilofar & Samadifard, Hamidreza (2018). Prediction of suicidal thoughts based on happiness, self-esteem and spiritual health in adolescent girls. *Research in religion and health*, 5(3), 59-71.

Mousavi, S., Ghasemi Jobneh, R., Rezaei, S. & Shaikhali, N. (2017). Neuroticism and problem solving styles in women committing chemical suicide. *Clinical Psychology and Personality*, 16(2), 130-123.

Mustafaei, Ali & Ashrafi, Hossein (2019). Investigating the relationship between quality of life and spiritual intelligence with suicidal thoughts among soldiers (case study of Sardasht city). *Journal of Military Medicine*, 21(3), 289-282.

Pant, N., & Srivastava, S. K. (2019). The Impact of Spiritual Intelligence, Gender and Educational Background on Mental Health Among College Students. *J Relig Health*, 58(1), 87-108.

Peleg, O., & Zoabi, M. (2014). Social anxiety and differentiation of self: A comparison of Jewish and Arab college students. *Pers Individ Dif*, 48, 221-8.

Rahimi, Nada & Asadollahi, Zahra (2015). The relationship between spiritual health and the occurrence of suicidal thoughts in students of the Faculty of Nursing and Midwifery of Rafsanjan University of Medical Sciences in 2013. *Community Health Journal*, 10(3), 28-35.

RanjDost, Shahram (2020). Investigating the relationship between spiritual intelligence and emotional intelligence with the performance of female nurses in Tabriz city in 2016. *Research in religion and health*, 6(1), 34-47.

Sepehri Nejad, Maryam & Hatmian, Payman (2017). Prediction of suicidal thoughts based on the difficulty of emotion regulation and experimental avoidance in nurses. *Nursing Research*, 13(4), 44-39.

Shah, A. J.; Veledar, E.; Hong, Y.; Bremner, J. D., & Vaccarino, V. (2011). Depression and history of attempted suicide as risk factors for heart disease mortality in young individuals. *Arch Gen Psychiatry*, 68(11), 1135-1142.

Sherkat, Marzieh; Kalantari, Mehrdad; Azarbaijani, Masoud & Abedi, Mohammad Reza (2019). The effectiveness of spiritual intelligence training on the level of spiritual intelligence, psychological well-being, anxiety and depression of students. *Psychological Sciences*, 19 (88).211-218.

Smigelsky, M. A.; Jardin, [C.](#); Nieuwsma, J. A.; Brancu, [M.](#); Meador, [K. G.](#); Molloy, [K. G.](#), & Elbogen, [E. B. \(2020\).](#) Religion, spirituality, and suicide risk in Iraq and Afghanistan era veterans. *Depression & Anxiety*, 37(8), 728-737.

Timmons, A. C.; Arbel, R., & Margolin, G. (2017). Daily patterns of stress and conflict in couples: Associations with marital aggression and family-of-origin aggression. *Journal of family psychology*, 31(1).

Tyrer, P.; Tyrer, H., & Yang, M. (2022). The influence of personality disorder in predicting suicidal behaviour in common mental disorders: A 30-year study. *Personality and Mental Health*, 16(2), 111-119.

Vaghei, Saeed; Salarhaji, Azam; Rezaei Ardani, Amir; Mazloum, Sayyed Reza; Akhi, Nastern& Alizadeh, Farzaneh (2016). The relationship between self-differentiation and strategies to cope with stress and suicide in patients with mood disorders. *Journal of TorbatHeydarieh University of Medical Sciences*, 5(1), 17-25.

Varmaghani, P., Alipour, F., Quaid Amini Haroni, G. & Javadi, M. (2019). Effectiveness of group social work intervention. With a problem solving approach on reducing suicidal thoughts of women in Qorve city. *Journal of Rehabilitation*, 20(3), 297-286.

Zohar, D., & Marshall, I. (2000). SQ: Spiritual intelligence, the ultimate intelligence. London: Bloomsburg.