



A serial mediation model of failure mindset and suicidal ideation among undergraduate students: The impact of meaning in life and spiritual coping

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ABSTRACT

The association between a failure mindset and suicidal ideation is well-documented, yet the mediating roles of existential and coping mechanisms remain underexplored. This study investigates the serial mediation effects of meaning in life and spiritual coping on the relationship between failure mindset and suicidal ideation among undergraduate students. A cross-sectional survey was conducted with 783 Chinese undergraduates ($M_{age} = 19.92$, $SD = 2.29$). The measures included the Failure Mindset Scale, the Meaning in Life Scale, the Spiritual Coping Scale, and the Beck Scale for Suicidal Ideation. Using Model 6 of Hayes' PROCESS macro, the results indicated a significant direct effect of failure mindset on suicidal ideation ($\beta = 0.442$, $p < 0.001$). Furthermore, the serial mediation analysis revealed that meaning in life and spiritual coping sequentially mediated the relationship between failure mindset and suicidal ideation (Effect = 0.021, 95 % CI: 0.001 to 0.019). Independently, both meaning in life (Effect = 0.054, 95 % CI: 0.027 to 0.079) and spiritual coping (Effect = 0.043, 95 % CI: 0.012 to 0.074) significantly mediated the relationship. These findings highlight the intricate relationship between cognitive processes and coping mechanisms, providing theoretical insights and practical guidance for improving university students' well-being through interventions focused on life meaning and spiritual coping strategies.

1. Introduction

The shift from adolescence to adulthood frequently represents a pivotal phase for university students, particularly those at the undergraduate level (Venter et al., 2024). This phase is marked by academic challenges, personal growth, and the search for meaning and identity (Song, 2024). For many students, this journey involves encountering failures in academic, social, or personal domains, which can significantly shape their mindset and coping mechanisms (Cousins et al., 2017). A failure mindset, characterized by a pervasive focus on and fear of failure, has been linked to various negative psychological outcomes, such as stress, anxiety, and self-doubt (Penzel et al., 2016; Schroder et al., 2019). These psychological burdens can escalate into more severe issues, including suicidal ideation, particularly when students lack the resources or strategies to cope effectively (Bhargav & Swords, 2022).

An increasing number of studies emphasize the significance of life meaning and spiritual coping as crucial safeguards against psychological

distress (Bernard et al., 2017; Morse et al., 2024; Pérez-Cruz et al., 2019). Life meaning reflects an individual's sense of purpose and coherence, acting as a safeguard against the negative impacts of stress and failure by fostering resilience and hope (Schnell & Krampe, 2020; Tal-Saban & Zaguri-Vittenberg, 2022). Spiritual coping, by contrast, involves leveraging spiritual beliefs and practices to navigate challenges and attain comfort during times of adversity (Arbinaga et al., 2021). For many students, these mechanisms serve as vital pathways that mitigate the detrimental effects of a failure mindset and redirect their focus toward adaptive outcomes (Tao, Zhao, et al., 2022).

Although the significance of meaning in life and spiritual coping in promoting psychological well-being is well established, research on their combined mediating effect in the relationship between a failure mindset and suicidal ideation remains limited. Existing studies have predominantly examined Western populations, resulting in a significant gap in understanding how these psychological dynamics operate in diverse cultural contexts (Burkhard et al., 2021). This gap is particularly

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relevant for university students, who frequently encounter challenges in managing academic, social, and personal responsibilities (Coelho & Menezes, 2021).

In the context of China, a predominantly secular society, traditional philosophical frameworks such as Confucianism, Daoism, and Buddhism continue to exert considerable influence on individuals' perceptions of life meaning and coping strategies (Lin et al., 2021). While formal religious affiliation remains low, practices rooted in these traditions, including mindfulness, self-cultivation, and moral reflection, provide existential and psychological benefits comparable to those observed in religious communities (J. Zhou et al., 2021). Consequently, it is imperative to explore how interventions that emphasize meaning in life and spiritual coping can be adapted to align with cultural values centered on self-improvement, social harmony, and personal ethics.

This study seeks to address these gaps by proposing a serial mediation model to examine the mechanisms through which a failure mindset influences suicidal ideation, specifically focusing on the mediating roles of meaning in life and spiritual coping within the undergraduate population. By elucidating these pathways, this research contributes to a deeper understanding of the psychological and spiritual dimensions of student well-being, offering practical insights for the development of culturally relevant interventions aimed at enhancing mental health among university students.

1.1. Failure mindset and suicidal ideation

According to Beck's Cognitive Theory of Depression (1983), negative thinking patterns are pivotal in the development and maintenance of psychological distress, including suicidal ideation (Clak & Beck, 1999). A failure mindset, defined as a persistent tendency to view failure as a reflection of personal inadequacy, has been associated with heightened emotional distress (Johnson et al., 2017). This mindset often results in self-doubt, hopelessness, and an increased sense of worthlessness, all of which are strongly linked to suicidal thoughts (Qiu et al., 2017; Ribeiro et al., 2018). Individuals with a failure mindset may perceive their setbacks not as isolated incidents but as confirmations of their inability to succeed, thereby amplifying the risk of developing suicidal ideation (Pilkington et al., 2021; Zhu & Wong, 2022).

University students, in particular, are vulnerable to this phenomenon as they face significant pressures to meet academic, social, and personal expectations (Cengiz, 2023). Research indicates that students with a failure mindset who repeatedly experience academic or social failures are more likely to engage in negative self-appraisal, leading to despair and suicidal thoughts (Lamis et al., 2016; Liu et al., 2024). The transition to adulthood, coupled with the high demands of academic environments, often intensifies the emotional burden of a failure mindset, making university students a high-risk group for suicidal ideation (Peltzer et al., 2017). Based on these findings, this study hypothesizes the following:

H1 There is a significant effect of failure mindset on suicidal ideation.

1.2. The mediating role of meaning in life

An expanding body of research underscores the crucial influence of life meaning in fostering psychological well-being and reducing negative mental health outcomes (Currier et al., 2024; Vos & Vitali, 2018). Meaning in life, characterized by an individual's sense of purpose, coherence, and significance in existence, has consistently been associated with lower distress levels and enhanced resilience, especially in university students navigating substantial academic and social pressures (Bailey & Phillips, 2016; Morgan & Farsides, 2009).

First, failure mindset, defined as the enduring belief that failures signify personal inadequacy, has been found to diminish an individual's sense of life meaning (Tao, Li, & Wu, 2022; Xiao et al., 2024). A failure mindset fosters negative self-perceptions, including hopelessness and

worthlessness, which directly conflict with an individual's ability to derive meaning from life experiences (Harrison et al., 2022; Mullarkey & Schleider, 2020). This erosion of meaning can amplify emotional vulnerability, leaving students more susceptible to psychological distress and suicidal ideation (Kalashnikova et al., 2022).

Second, according to Viktor Frankl's (1967) Logotherapy and its emphasis on existential meaning, the search for meaning serves as a buffer against despair. In Frankl's theory, the inability to construct meaning in life can lead to an "existential vacuum," characterized by feelings of emptiness and alienation, which are commonly observed among individuals with a failure mindset (Lunsky, 1966). Meaning in life can therefore act as a psychological shield, redirecting students' focus from perceived inadequacies to a broader understanding of their purpose and potential (Vos & Vitali, 2018).

Third, existing research suggests that meaning in life facilitates psychological adjustment by providing a framework for interpreting setbacks constructively rather than as personal deficiencies (Hu et al., 2023). When students perceive meaning in their academic and social roles, they are better equipped to reframe failures as opportunities for growth rather than definitive evidence of inadequacy (Zander et al., 2018; Zhao et al., 2024). This constructive reinterpretation is especially critical in the Chinese cultural context, where academic achievement is often tied to self-worth (Fong & Yuen, 2016).

Finally, research demonstrates a negative correlation between life meaning and suicidal ideation (Yu & He, 2023). Individuals with a strong sense of meaning exhibit higher levels of hope and resilience, which can counteract the despair associated with failure mindset (Karataş et al., 2021). Conversely, diminished meaning in life has been linked to heightened feelings of helplessness and a lack of future orientation, increasing the likelihood of suicidal thoughts (Lew et al., 2020). In summary, meaning in life not only mitigates the negative effects of a failure mindset but also fosters a sense of purpose that directly reduces the risk of suicidal ideation. Based on this, hypothesis H2 is proposed:

H2 Meaning in life mediates the relationship between failure mindset and suicidal ideation.

1.3. The mediating role of spiritual coping

Spiritual coping involves utilizing religious or spiritual beliefs and practices to navigate stress and adversity, providing individuals with a sense of purpose, solace, and resilience in difficult circumstances (Gall & Guirguis-Younger, 2013). Unlike other forms of coping, spiritual coping provides a unique framework for interpreting and overcoming life's struggles, often by fostering a connection with a higher power or a transcendent source of meaning (Klaassen et al., 2006). Spiritual coping is especially effective in alleviating psychological distress, including anxiety and depression, which, if not addressed, may escalate to suicidal ideation (Vitorino et al., 2023).

The Transactional Model of Stress and Coping (2010) provides a valuable framework for examining how spiritual coping mediates the connection between a failure mindset and suicidal ideation. According to this model, individuals with a failure mindset may perceive setbacks as insurmountable stressors, resulting in feelings of hopelessness and despair (Hulbert-Williams et al., 2013). Spiritual coping acts as a buffer in this process by helping individuals reframe their experiences, find meaning in their challenges, and maintain emotional equilibrium (Whitehead & Bergeman, 2020). For example, practices such as prayer, meditation, or seeking support from a faith community can provide individuals with a sense of solace and resilience, reducing the likelihood of suicidal thoughts (Williams et al., 2006).

Empirical research supports the protective role of spiritual coping in mental health. A study by Shelke et al. (2024) demonstrated that individuals who engaged in spiritual coping reported lower levels of psychological distress and suicidal ideation, even in the face of significant life challenges. Likewise, research among university students

revealed that individuals employing spiritual coping demonstrated greater emotional regulation and stress tolerance, subsequently lowering their susceptibility to mental health challenges (Grača & Brandão, 2024). Another study highlighted the role of spiritual coping in fostering hope and resilience, which are critical for counteracting the negative effects of a failure mindset (Atlas & Hart, 2023). In summary, spiritual coping provides individuals with the psychological and emotional tools to navigate the adversities associated with a failure mindset. By fostering a sense of hope, meaning, and connection, it acts as a mediator in the relationship between failure mindset and suicidal ideation. Accordingly, the following hypothesis is proposed:

H3 Spiritual coping mediates the relationship between failure mindset and suicidal ideation.

1.4. The serial mediating role of meaning in life and spiritual coping

The influence of a failure mindset on suicidal ideation is not direct but operates through a sequential mediation process. Specifically, meaning in life and spiritual coping function together as interconnected mechanisms that transmit the effects of a failure mindset to suicidal ideation. When individuals develop a failure mindset, they may struggle to find coherence and purpose, leading to a diminished sense of meaning in life (Huang et al., 2023). This disruption in meaning creates a psychological vulnerability that heightens distress and emotional instability, increasing the risk of suicidal ideation (Ling et al., 2023).

However, meaning in life alone may not fully buffer against this negative trajectory, as it primarily serves as a cognitive restructuring process without necessarily offering sustained emotional reinforcement (Vanderveren et al., 2020). While regaining meaning provides a critical turning point in coping with distress, individuals may still struggle with lingering existential uncertainty (Ostafin et al., 2022). At this stage, spiritual coping emerges as a crucial mechanism that not only consolidates meaning but also deepens its resilience against future stressors (Jans-beken, 2019).

The Self-Transcendence Theory posits that individuals facing existential distress naturally seek to expand their perspective beyond immediate suffering, engaging in processes that help them integrate their challenges into a more expansive and coherent life narrative (Cueto de Souza & Scott, 2022; Ge & Yang, 2023). Spiritual coping serves as a structured framework for this transcendence by offering existential continuity, allowing individuals to connect their adversity to a greater sense of purpose or a transcendent belief system (Dunn & Robinson-Lane, 2020). This additional layer of cognitive and emotional adaptation fortifies meaning in life, reinforcing its stability over time (Sinnott et al., 2024).

Further support for this process can be found in the Meaning-Making Model of Coping, which suggests that individuals experiencing distress engage in meaning-making efforts to reconcile personal suffering with a broader understanding of life (Lewis Hall & Hill, 2019; Wang et al., 2019). Within this framework, meaning in life serves as the initial cognitive appraisal, but it is spiritual coping that enables individuals to integrate new interpretations, reducing long-term distress and preventing existential crises (Dolcos et al., 2021; Kalashnikova et al., 2022). This model aligns with findings that spiritual coping fosters adaptive meaning-making by shifting focus from personal failures to transcendental or existential perspectives, thereby further buffering against suicidal ideation (Alshareef & Alfuqaha, 2024; Sinnott et al., 2024).

Through spiritual coping, individuals can reinterpret their experiences within a spiritual or existential context, transforming distress into a source of growth and resilience (De Vyneck et al., 2023). This process helps stabilize their reconstructed sense of meaning, preventing future existential lapses and fostering long-term psychological well-being (Kira et al., 2021). Ultimately, spiritual coping acts as a protective mechanism that sustains and strengthens meaning, thereby mitigating suicidal ideation by providing individuals with a more enduring existential buffer (Alshareef & Alfuqaha, 2024; Sinnott et al., 2024).

This serial mediation model suggests that meaning in life acts as an initial mediator that explains how a failure mindset translates into distress, while spiritual coping functions as a subsequent mechanism that stabilizes and strengthens this restored meaning. Empirical research supports this framework, showing that meaning in life alone, while protective, becomes more robust when supported by spiritual coping, as it facilitates a more enduring form of psychological resilience (Dunn & Robinson-Lane, 2020; Sharma et al., 2023; Sørensen et al., 2021). Thus, rather than functioning as independent mediators, meaning in life and spiritual coping operate in sequence, forming a pathway that progressively mitigates the effects of a failure mindset on suicidal ideation.

Accordingly, the refined theoretical model posits that a failure mindset first undermines meaning in life, increasing distress. As individuals work to reconstruct meaning, spiritual coping strengthens and maintains this meaning, thereby reducing the risk of suicidal ideation. This perspective highlights the dynamic interplay between existential and spiritual resources, emphasizing their complementary roles in psychological well-being. Thus, the following hypothesis is proposed:

H4 Meaning in life and spiritual coping chain mediate the effect of failure mindset on suicidal ideation among undergraduate students.

1.5. The present study

This study examines the influence of a failure mindset on suicidal ideation in university students, with a focus on the sequential mediating roles of life meaning and spiritual coping. It investigates whether a failure mindset undermines life meaning, thereby elevating the risk of suicidal ideation, while spiritual coping serves as a protective factor to alleviate distress. Using validated psychological measures, this research surveys Chinese undergraduate students to address gaps in the existing literature, which has largely centered on Western populations. By elucidating these pathways, this study seeks to uncover the mechanisms connecting a failure mindset to suicidal ideation and to provide actionable recommendations for mental health interventions focused on life meaning and spiritual coping.

2. Methods

2.1. Participants and procedure

The study participants comprised undergraduate students from two universities in Jiangxi Province, China. Data were gathered through the Questionnaire Star platform, a commonly utilized online survey tool in China. Participants were recruited using convenience sampling through online advertisements posted on social media platforms. Participation was completely voluntary and anonymous, with all individuals providing electronic informed consent prior to completing the survey. The questionnaire included fixed-answer items to detect inattentive responses, and participants who failed these items or displayed monotonous response patterns (e.g., consistently selecting the same option) were excluded from the final sample. After screening, a total of 783 valid responses were retained. Of these, 48.4 % (379) were men, and 51.6 % (404) were women. The participants had an average age of 19.92 years ($SD = 2.29$). The survey was administered online, enabling participants to complete it at their convenience. The sample size surpasses the recommended minimum for mediation research to ensure sufficient statistical power (Fritz & MacKinnon, 2007).

2.2. Measures

2.2.1. Failure mindset scale

The Chinese College Students Failure Mindset Scale (Niu et al., 2024) was used to assess failure mindset. The scale comprises 10 items categorized into two dimensions: positive failure mindset and negative failure mindset, each containing five items. Participants rated their responses on a 6-point Likert scale (1 = strongly disagree to 6 = strongly agree).

agree), with higher scores reflecting increased sensitivity to failure. Niu et al. (2024) reported that the overall scale had a Cronbach's α of 0.83, with internal consistency reliability of $\alpha = 0.81$ for positive failure mindset and $\alpha = 0.79$ for negative failure mindset. A sample item is "Failure dampens my enthusiasm and motivation." In this study, the Cronbach's α coefficients were 0.89 for the entire scale, 0.82 for the positive failure mindset dimension, and 0.84 for the negative failure mindset dimension.

2.2.2. Meaning in life scale

The Chinese Version of the Meaning in Life Scale (Shek, 1992; Steger et al., 2006) was utilized to evaluate meaning in life. This scale includes nine items split into two dimensions: presence of meaning (five items) and search for meaning (four items). An example item from the search for meaning dimension is, "I am always searching for the purpose of my life." Participants indicated their agreement with each statement using a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree), with higher scores representing stronger efforts to seek purpose or meaning in life. Shek (1992) reported that the scale demonstrated sufficient reliability and validity, with a Cronbach's α of 0.79 for the overall scale and $\alpha = 0.80$ and 0.77 for the presence of meaning and search for meaning dimensions, respectively. In the present study, the Cronbach's α coefficients were 0.82 for the overall scale, 0.88 for the presence of meaning dimension, and 0.91 for the search for meaning dimension.

2.2.3. Spiritual coping scale

The Chinese Spiritual Coping Scale (Feng et al., 2021) was used to measure spiritual coping. The scale comprises 17 items distributed across four dimensions: Mystical Experiences (five items), Moral Practice (five items), Meaning Exploration (four items), and Transcendent Attitude (three items). An example item from the Meaning Exploration dimension is, "I have inner dialogues to explore my future direction." Participants evaluated their agreement with each statement using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), with higher scores reflecting greater levels of spiritual coping. Feng et al. (2021) reported that the scale demonstrated strong reliability and validity, with a Cronbach's α of 0.93 for the overall scale and $\alpha = 0.91, 0.87, 0.82,$ and 0.89 for the Mystical Experiences, Moral Practice, Meaning Exploration, and Transcendent Attitude dimensions, respectively. In the present study, the Cronbach's α coefficients were 0.85 for the overall scale, 0.88 for Mystical Experiences, 0.90 for Moral Practice, 0.84 for Meaning Exploration, and 0.85 for Transcendent Attitude.

2.2.4. Suicidal ideation scale

The Chinese Version of the Beck Scale for Suicide Ideation (Beck et al., 1988; Zhang & Brown, 2007) was used to assess suicidal ideation. The scale comprises 19 items, organized into two dimensions: Suicidal Thoughts (five items) and Suicidal Tendencies (14 items). An example item from the Suicidal Tendencies dimension is, "In the past week, to what extent have you actively considered attempting suicide?" Participants rated their responses on a 3-point Likert scale (1 = none, 3 = moderate to severe), with higher scores indicating stronger suicidal ideation. Zhang and Brown (2007) reported that the scale demonstrated adequate reliability and validity, with a Cronbach's α of 0.79 for the overall scale, and $\alpha = 0.75$ and 0.77 for the Suicidal Thoughts and Suicidal Tendencies dimensions, respectively. In this study, the Cronbach's α coefficients were 0.86 for the overall scale, 0.87 for the Suicidal Thoughts subscale, and 0.83 for the Suicidal Tendencies subscale.

2.3. Statistical methods

Data were analyzed using IBM SPSS version 25.0. Descriptive statistics summarized participants' demographic characteristics, Pearson correlation analysis assessed the relationships among variables, and the Harman single-factor test evaluated potential common method bias. The serial mediation effect was tested using the PROCESS macro for SPSS

(Model 6) developed by Hayes et al. (2017), with failure mindset as the independent variable, suicidal ideation as the dependent variable, and meaning in life and spiritual coping serving as mediators.

3. Findings and results

To assess common method bias, we conducted a single-factor confirmatory factor analysis (CFA). The results indicated poor model fit ($\chi^2/df = 28.01$, CFI = 0.50, GFI = 0.72, AGFI = 0.66, NFI = 0.51, RMSEA = 0.15), suggesting that a single-factor model does not adequately explain the variance in the data (Goretzko et al., 2024). Therefore, common method bias is unlikely to be a significant concern in this study. Furthermore, variance inflation factors (VIF) were calculated for all variables, with all VIF values remaining under 5, suggesting minimal risk of multicollinearity (Schreiber-Gregory et al., 2018).

Table 1 presents the means, standard deviations (SD), and Pearson's correlation coefficients for gender, age, failure mindset, meaning in life, spiritual coping, and suicidal ideation. The findings revealed significant relationships among the variables. Specifically, failure mindset exhibited a significant negative correlation with meaning in life ($r = -0.387, p < 0.01$) and spiritual coping ($r = -0.468, p < 0.01$), while demonstrating a significant positive correlation with suicidal ideation ($r = 0.342, p < 0.01$). Moreover, meaning in life was positively correlated with spiritual coping ($r = 0.282, p < 0.01$) and negatively correlated with suicidal ideation ($r = -0.337, p < 0.01$). Spiritual coping also showed a significant negative correlation with suicidal ideation ($r = -0.347, p < 0.01$). Gender and age did not exhibit statistically significant correlations with the key psychological variables.

3.1. Testing the serial mediation effect

To examine the serial mediation effects of meaning in life and spiritual coping on the relationship between failure mindset and suicidal ideation, we employed Model 6 of the SPSS PROCESS macro, incorporating gender and age as control variables. The regression results (Table 2) indicate that failure mindset was significantly negatively associated with meaning in life ($\beta = -0.387, p < 0.001$). In turn, meaning in life was significantly positively associated with spiritual coping ($\beta = 0.217, p < 0.001$). Moreover, failure mindset exhibited a significant negative relationship with spiritual coping ($\beta = -0.421, p < 0.001$).

Both meaning in life and spiritual coping were significantly negatively related to suicidal ideation ($\beta = -0.136, p < 0.001$ and $\beta = -0.101, p < 0.01$, respectively). Importantly, the direct effect of failure mindset on suicidal ideation remained significant even after accounting for the mediators ($\beta = 0.442, p < 0.001$). Gender and age were included as control variables; however, their effects were non-significant in predicting meaning in life, spiritual coping, and suicidal ideation. The detailed path model is illustrated in Fig. 1.

The bootstrap test results (Table 3) revealed that meaning in life and

Table 1
Descriptive statistics and correlation matrix.

Variable	1	2	3	4	5	6
Gender	1					
Age	0.035	1				
Failure mindset	0.021	-0.016	1			
Meaning in life	0.023	0.035	-0.387**	1		
Spiritual coping	-0.011	0.041	-0.468**	0.282**	1	
Suicidal ideation	0.048	-0.025	0.342**	-0.337**	-0.347**	1
M	1.521	19.923	3.531	5.559	4.134	1.314
SD	0.513	2.285	1.26	0.882	0.924	0.731

** Note. $p < 0.01$.

Table 2

The regression equation of chain mediation.

Regression eq. (<i>N</i> = 783)		Fit indicator			Coefficient and significance	
Outcome variable	Predictor variable	<i>R</i>	<i>R</i> ²	<i>F</i>	β	<i>t</i>
Meaning in life	Gender	0.39	0.152	52.545	0.072	0.218
	Age				0.029	0.874
	Failure mindset				−0.387***	−8.763
Spiritual coping	Gender	0.481	0.232	64.67	−0.003	−0.108
	Age				0.03	0.965
	Failure mindset				−0.421***	−9.370
	Meaning in life				0.217***	3.424
Suicidal ideation	Gender	0.494	0.267	107.654	0.038	1.246
	Age				−0.017	−0.57
	Failure mindset				0.356***	8.144
Suicidal ideation	Gender	0.58	0.334	121.264	0.036	1.293
	Age				−0.021	−0.331
	Failure mindset				0.442***	10.614
	Meaning in life				−0.136***	−4.22
	Spiritual coping				−0.101**	−3.004

** Note. $p < 0.01$.*** $p < 0.001$.

spiritual coping partially mediated the relationship between failure mindset and suicidal ideation, with a total indirect effect of 0.145. This effect comprised three distinct pathways: (1) failure mindset → meaning in life → suicidal ideation (effect = 0.054, 95 % CI: 0.027 to 0.079), (2) failure mindset → spiritual coping → suicidal ideation (effect = 0.043, 95 % CI: 0.012 to 0.074), and (3) failure mindset → meaning in life → spiritual coping → suicidal ideation (effect = 0.021, 95 % CI: 0.001 to 0.019). These pathways highlight the intricate mechanisms by which failure mindset impacts suicidal ideation.

4. Discussion

4.1. Failure mindset and suicidal ideation

The findings of this study demonstrate that failure mindset directly

and significantly predicts suicidal ideation among undergraduate students, thereby supporting Hypothesis H1. Individuals with a pronounced failure mindset often view personal setbacks as insurmountable and internalize failure as a reflection of their self-worth (Athota, 2021). This cognitive pattern amplifies emotional distress and leaves individuals vulnerable to thoughts of self-harm (Shafti et al., 2021). The significant positive relationship observed in this study underscores the critical impact of failure mindset on mental health outcomes.

These results align with Frankl's Logotherapy (1967), which highlights the importance of meaning and purpose in mitigating existential crises. A failure mindset weakens an individual's capacity to sustain a sense of purpose and direction, potentially intensifying feelings of hopelessness and despair, which are major drivers of suicidal ideation (Zhu & Wong, 2022). Similarly, the Transactional Model of Stress and Coping offers a valuable framework for interpreting this relationship, highlighting the influence of cognitive appraisals on emotional responses (Goh et al., 2010). Individuals with a failure mindset may interpret setbacks as overwhelming threats, reducing their ability to engage in effective coping strategies and increasing their susceptibility to suicidal thoughts.

This study highlights the importance of addressing failure mindset in interventions aimed at reducing suicidal ideation. By helping individuals reframe their attitudes toward failure, mental health practitioners can reduce emotional distress and foster resilience, ultimately mitigating the risk of suicide.

4.2. The mediating role of meaning in life

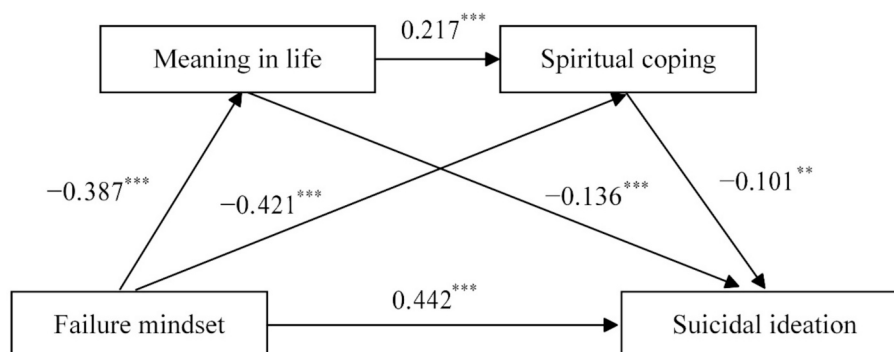
The findings of this study revealed that meaning in life mediates the relationship between failure mindset and suicidal ideation among undergraduate students, supporting Hypothesis H2. This mediating role highlights the significance of psychological constructs in buffering against the adverse impacts of negative cognitive patterns. Meaning in life, as conceptualized within Frankl's Logotherapy, suggests that a strong sense of purpose and personal significance can mitigate the existential despair often associated with maladaptive mindsets

Table 3

The total, direct, and indirect effect.

	Effects	Boot SE	Boot LLCI	Boot ULCI
Total effect	0.145	0.008	0.181	0.141
Direct effect	0.027	0.009	0.099	0.135
Total indirect effect	0.118	0.006	0.016	0.038
Indirect effect 1	0.054	0.004	0.027	0.079
Indirect effect 2	0.043	0.004	0.012	0.074
Indirect effect 3	0.021	0.002	0.001	0.019

Note. Indirect effect 1: failure mindset → meaning in life → suicidal ideation; indirect effect 2: failure mindset → spiritual coping → suicidal ideation; indirect effect 3: failure mindset → meaning in life → spiritual coping → suicidal ideation.

**Fig. 1.** The serial mediation effects (model 6) for meaning in life and spiritual coping as mediators.

(Schulenberg et al., 2008). The findings indicate that failure mindset negatively impacts meaning in life, which subsequently decreases suicidal ideation. This aligns with prior research emphasizing the protective role of a purposeful existence against emotional distress and self-harm tendencies (Kress et al., 2015).

The mediating effect observed here underscores the relevance of interventions aimed at fostering a sense of meaning among students facing academic or personal challenges. Meaning in life provides individuals with a framework to reinterpret failure as an opportunity for growth, thereby reducing its potential to provoke suicidal ideation (Kalashnikova et al., 2022). Frankl's Logotherapy supports this notion by advocating for the active search for meaning as a coping strategy during adversity (Frankl, 1966). This theoretical underpinning suggests that interventions encouraging students to engage in reflective practices and goal-setting could effectively address the negative psychological effects of failure.

Moreover, the transactional model of stress and coping supports the conclusion that meaning in life functions as a resource for reframing failure in a less threatening way, thereby fostering emotional resilience (Park & Folkman, 1997). This study highlights that while failure mindset directly influences suicidal ideation, meaning in life operates as a crucial intermediary that can reshape this relationship. Future research could further explore cultural or individual differences in how meaning is derived, which may enhance the development of tailored interventions to combat suicidal ideation among students with high failure mindsets.

4.3. The mediating role of spiritual coping

The study's findings showed that spiritual coping significantly mediates the relationship between failure mindset and suicidal ideation, thereby validating Hypothesis H3. Spiritual coping, characterized by utilizing spiritual resources to navigate challenging circumstances, appears to serve as a critical pathway through which a failure mindset influences suicidal ideation among undergraduate students. Specifically, individuals with a heightened failure mindset may experience diminished resilience in coping with adversity, which exacerbates their vulnerability to suicidal ideation (O'Connor et al., 2021). However, the engagement in spiritual coping can mitigate this relationship by fostering a sense of purpose and adaptive coping mechanisms.

According to Frankl's Logotherapy, the search for meaning is an essential human drive, particularly in confronting existential crises (Esping, 2018). Spiritual coping aligns with this theoretical framework by helping individuals reconstruct meaning amidst adversity, thereby reducing the psychological distress associated with failure (McGee et al., 2022). The Transactional Model of Stress and Coping further elucidates this relationship, suggesting that spiritual coping acts as a reappraisal strategy, enabling individuals to reinterpret failure experiences more positively and manage stress effectively (Stewart, 2011).

4.4. The serial mediating role of meaning in life and spiritual coping

The main finding of this study was that the relationship between failure mindset and suicidal ideation was partially mediated by meaning in life and spiritual coping in a sequential pathway, confirming Hypothesis H4. The results highlight the critical role of existential and spiritual mechanisms in buffering the psychological impact of a failure mindset. Specifically, undergraduate students with a failure mindset, characterized by a persistent negative perception of personal setbacks, often experience a diminished sense of life meaning, which can intensify distress and contribute to suicidal ideation (Kelly et al., 2023). This finding aligns with Frankl's Logotherapy (1967), which underscores the necessity of life meaning as a fundamental component of psychological well-being. A loss of meaning in life renders individuals more susceptible to existential frustration, reinforcing a trajectory of psychological distress (Wong, 2016).

Beyond the role of meaning in life, spiritual coping further reinforces

the protective effects of restored meaning. When students experience an erosion of life meaning due to perceived failures, they may turn to spiritual coping as a means of reconstructing purpose and integrating their experiences into a broader existential framework. The Self-Transcendence Theory (Reed, 2021) provides a theoretical explanation for this process, emphasizing that individuals in distress often seek to expand their perspective beyond immediate suffering. Spiritual coping mechanisms—such as moral reflection, transcendence, and purpose exploration—serve to reinforce and sustain meaning, providing a stable psychological buffer against suicidal ideation (Alshareef & Alfuhaha, 2024). Through this lens, spiritual coping is not merely a reaction to adversity but a mechanism that consolidates the reestablishment of meaning in life, making it more resilient to future distress.

Furthermore, the Meaning-Making Model of Coping (Sinnott et al., 2024) suggests that individuals construct and reframe meaning in response to psychological adversity, a process that is often facilitated through spiritual coping. By engaging in this process, individuals transition from a state of existential despair to one of adaptive meaning-making, which mitigates the effects of a failure mindset on suicidal ideation. This finding is consistent with previous research demonstrating that spiritual coping fosters adaptive meaning-making by shifting focus from personal setbacks to a broader existential understanding, thereby reducing psychological distress (Dunn & Robinson-Lane, 2020; Shelke et al., 2024).

Although meaning in life and spiritual coping served as mediators, the direct relationship between failure mindset and suicidal ideation remained significant, indicating a partial mediation model. This suggests that while these mediators significantly attenuate the association, a failure mindset continues to exert an independent influence on suicidal ideation beyond its impact through meaning in life and spiritual coping. This underscores the complexity of psychological distress and highlights the need for interventions that simultaneously target meaning reconstruction and the development of effective spiritual coping strategies. Enhancing meaning in life through existential interventions while fostering adaptive spiritual coping mechanisms may offer a comprehensive approach to mitigating the adverse effects of a failure mindset on mental health.

4.5. Cultural and secular considerations in spiritual coping

The findings of this study highlight the importance of meaning in life and spiritual coping in mitigating suicidal ideation among undergraduate students. However, an important consideration is how these strategies can be effectively received in predominantly secular societies, such as China (Zhou & McLellan, 2024). While religious spiritual practices are less common, many Chinese individuals derive existential meaning from philosophical and cultural traditions (Nelson, 2022). Confucian values, which emphasize moral integrity and personal responsibility, can serve as a framework for meaning-making (Li, 2024). Similarly, Daoist principles of balance and mindfulness-based practices provide pathways for coping with adversity (Tan, 2023). In this way, interventions promoting meaning in life and spiritual coping can be culturally tailored by emphasizing personal growth, ethical reflection, and mindful awareness rather than explicitly religious elements.

Another critical consideration is the declining number of individuals identifying as religious in Western countries, particularly the United States (Wiertz & Lim, 2021). This trend raises concerns about the applicability of spiritual coping strategies in populations that identify as atheist or agnostic (Van der Tempel & Moodley, 2020). One way to address this challenge is to redefine spiritual coping in broader existential terms. Research indicates that non-religious individuals also engage in meaning-making processes through secular practices such as mindfulness, values-based living, and humanistic psychology approaches (Lundh, 2022). For example, mindfulness-based cognitive therapy (MBCT) has been shown to provide similar stress-buffering effects as spiritual coping without relying on religious frameworks

(Strauss et al., 2021). Thus, advocating for spiritual coping in these populations should focus on its psychological benefits—such as fostering resilience, emotional regulation, and self-reflection—rather than religious affiliation.

4.6. Limitation

This study has certain limitations that warrant attention. First, the cross-sectional design restricts causal inferences since the data capture relationships at a single time point. Second, although validated instruments were used (Durmaz et al., 2020), the reliance on self-reported measures may introduce biases such as social desirability or subjective interpretation of the items. Third, the sampling approach and the emphasis on Chinese undergraduate students may limit the generalizability of the findings to different populations or cultural settings. Fourth, the study concentrated on meaning in life and spiritual coping as mediators, potentially overlooking other influential factors, such as social support or personality traits, which could further clarify the relationships examined. Lastly, the use of convenience sampling and online data collection may have introduced selection bias, as participants with limited internet access or differing digital literacy may have been excluded (Ponchio et al., 2021). Future studies could overcome these limitations by adopting longitudinal designs, integrating multi-method data collection, using more diverse samples, and examining a broader set of variables to enhance the robustness and generalizability of the findings.

4.7. Implications

This study provides significant theoretical and practical insights into the mechanisms by which failure mindset impacts suicidal ideation, emphasizing the mediating roles of life meaning and spiritual coping.

4.7.1. Theoretical implications

This study advances existing models of failure mindset by revealing the partial sequential mediation of life meaning and spiritual coping. While previous research has largely focused on the direct impact of failure mindset on mental health outcomes, this work underscores the complex mechanisms underlying this connection. Drawing on Frankl's Logotherapy (1967) and the Transactional Model of Stress and Coping (2010), the findings provide an integrated framework to understand how meaning in life and spiritual coping collectively mitigate the adverse effects of failure mindset. These findings enrich the psychological literature by highlighting the interaction between existential and coping mechanisms in mental health. Future research should explore additional mediators, such as self-efficacy and social connectedness, to deepen our understanding of these complex relationships (Thomas et al., 2016). Moreover, longitudinal studies could examine how these mechanisms evolve over time, offering insights into their long-term impact on suicidal ideation across diverse cultural and educational contexts.

4.7.2. Practical implications

The findings have significant practical implications for mental health interventions targeting university students. First, fostering a sense of meaning in life should be a priority in educational and counseling settings. Programs such as goal-setting workshops, reflective practices, and meaning-centered therapy can equip students with the skills to reinterpret failures constructively (Shahu et al., 2019). Second, integrating spiritual coping strategies into mental health programs is essential, particularly when aligned with students' cultural beliefs and values (Rayaes et al., 2021). Activities such as mindfulness training, spiritual dialogue groups, and resilience-building workshops can enhance students' ability to navigate adversity (Galante et al., 2018; Ramasubramanian, 2017). Third, early identification of students with a pronounced failure mindset is crucial, allowing for tailored support through counseling and mentorship programs (Zhao et al., 2024). These

interventions can mitigate the psychological vulnerabilities associated with a failure mindset while fostering adaptive coping mechanisms and emotional resilience.

This study highlights the necessity of culturally adaptive mental health interventions that account for variations in spiritual and existential orientations across different populations. In China, incorporating traditional philosophical principles such as Confucian moral reasoning and Daoist mindfulness can enhance the cultural acceptability of meaning-based interventions (Tan, 2021). Conversely, in the U.S. and other increasingly secular Western societies, approaches that emphasize self-exploration, values clarification, and psychological flexibility—such as Acceptance and Commitment Therapy—may serve as effective alternatives to religious spiritual coping (Yavuz, 2022). Future research should further refine these frameworks to ensure their relevance and accessibility across diverse populations.

5. Conclusion

The present study sheds light on the intricate relationships among failure mindset, meaning in life, spiritual coping, and suicidal ideation among undergraduate students. By examining these variables within a serial mediation framework, the research provides a nuanced understanding of how negative cognitive patterns such as failure mindset can lead to suicidal ideation, while also emphasizing the protective roles of existential and coping mechanisms. The findings reveal that both meaning in life and spiritual coping partially mediate this relationship, underscoring their significance as psychological buffers against the adverse effects of failure mindset.

The study's theoretical contributions lie in its integration of Frankl's Logotherapy and the Transactional Model of Stress and Coping to explore the pathways connecting failure mindset to suicidal ideation. These insights enrich the existing body of literature by highlighting the interplay between existential meaning and coping strategies in shaping mental health outcomes. Practically, the research underscores the importance of targeted interventions that enhance students' capacity for meaning-making and adaptive coping. Initiatives focused on cultivating purpose, resilience, and spiritual well-being may be instrumental in reducing the harmful effects of a failure mindset on mental health, especially in demanding academic environments.

Overall, this study advances the understanding of psychosocial factors influencing student well-being, providing a foundation for future research and the development of effective mental health interventions. Addressing the dual roles of meaning in life and spiritual coping within mental health strategies can significantly strengthen support systems for university students, enhancing their resilience and reducing their susceptibility to suicidal ideation. Furthermore, by acknowledging cultural and religious diversity, interventions centered on meaning in life and spiritual coping can be adapted to meet the needs of both secular and religious populations. Tailoring these approaches to cultural and societal contexts will ensure broader acceptance and efficacy in mitigating mental health challenges among undergraduate students.

CRediT authorship contribution statement

Juncheng Guo: Writing – review & editing, Writing – original draft, Methodology, Data curation, Conceptualization. **Bolin Guo:** Writing – review & editing, Supervision, Methodology. **Jiaxin Ren:** Writing – original draft. **Mohong Wu:** Writing – original draft. **Jia Liu:** Writing – review & editing.

Author declaration

All authors declare this is an original submission that has not been published before and that is not currently under review elsewhere.

Statement regarding informed consent

This study was obtained informed consent from all participants.

Ethical approval

All participants provided digital informed consent prior to participation in the study. This study was approved by the ethics committee of Gannan Normal University (ref: GNNU-2024-018), and all procedures complied with the ethical standards of the 1964 Declaration of Helsinki regarding the treatment of human participants in research.

Statement regarding research involving human participants and/or animals

The subjects of this study are undergraduate students, we obtained informed consent from all participants.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Data availability

Data will be made available on request.

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