IJBS
10.30491/IJBS.2025.497344.2191
International Journal of Behavioral Sciences
Original Paper

Psychometric Properties of the Suicide Cognitions Scale (SCS): Validity and Reliability Assessment among Iranian Adolescents

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Submitted: 14 March 2025
Accepted: 12 April 2025

Int J Behav Sci. 2025; 19(1): 59-66

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Abstract

Introduction: Understanding cognitive risk factors associated with suicidal ideation is crucial for developing effective prevention strategies. The present study aimed to validate and assess the reliability of the Suicide Cognitions Scale (SCS) among Iranian adolescents.

Method: This study employed a descriptive-analytical evaluation design. The sample consisted of 400 adolescents from Tehran Province during the 2024–2025 academic year, selected through convenience sampling. Participants completed the SCS, the Beck Depression Inventory (BDI), and the Spiritual Well-Being Scale (SWBS). The psychometric evaluation of the SCS included analyses of confirmatory factor structure, divergent and concurrent validity, Pearson correlations, and internal consistency using Cronbach's alpha. All statistical analyses were conducted in R (version 4.2) with a significance level of 0.05.

Results: The three-factor structure of the SCS was examined and confirmed using Confirmatory Factor Analysis (CFA), with fit indices indicating an excellent model fit (CFI= 0.96, RMSEA= 0.05). For concurrent and divergent validity, the scale showed a significant positive correlation with the BDI and a significant negative correlation with the SWBS. Cronbach's alpha coefficients were calculated as 0.94 for the total scale and ranged from 0.82 to 0.86 for its subscales, indicating excellent internal consistency.

Conclusion: The findings indicate acceptable construct validity and reliability of the SCS, confirming its multidimensional structure. This scale can serve as an effective tool for identifying suicidal ideation in adolescents.

Keywords: Suicide Cognitions Scale, Psychometric Properties, Validity, Reliability, Adolescents

Introduction

Adolescence is a transformative phase of life characterized by rapid physical, emotional, and cognitive changes [1]. While this developmental stage brings opportunities for growth and self-discovery, it also presents significant challenges that can affect mental health [2]. For many adolescents, navigating social, academic, and familial pressures can contribute to feelings of stress, isolation, and emotional distress [3]. In some cases, these feelings may escalate to suicidal ideation or behaviors, highlighting the urgent need to address adolescent mental health [4]. Suicide is one of the leading causes of death among adolescents globally, representing a serious public health crisis [5]. According to the World Health Organization (WHO), nearly 800,000 individuals die by suicide each year, with adolescents making up a significant proportion of these fatalities [6]. Xiao et al. [7] reported a global prevalence of Non-Suicidal Self-Injury (NSSI) in non-clinical adolescents at 22.0% over a lifetime and 23.2% within 12 months. Repetitive NSSI (20.3%) was more common than episodic NSSI (8.3%), and mild injuries (12.6%) were similar in frequency to moderate injuries (11.6%). Multiple-method NSSI (16.0%) was slightly more prevalent than single-method NSSI (11.1%). The most common types of NSSI included banging/hitting (12.0%),

pinching (10.0%), and hair pulling (9.8%), while ingesting toxic substances (1.0%) was the least frequent. Subgroup analysis revealed higher NSSI prevalence among females, individuals with smoking or drinking histories, those with siblings, and adolescents from single-parent families. Sheykhangafshe et al. (8) reported a significant increase in the prevalence of suicide (2%-71.9%) and self-harm (2%-47.6%) during the COVID-19 pandemic compared to pre-pandemic levels. Factors such as economic difficulties, young age, female gender, unemployment, family issues, loneliness, and psychological distress were identified as key contributors to these behaviors. Conversely, social support, resilience, psychological strength, and spiritual health played a protective role in reducing suicidal thoughts and behaviors [8].

Suicide and self-harm among adolescents are significant public health concerns, influenced by a variety of factors such as mental health disorders, adverse childhood experiences, academic struggles, social isolation, and bullying or cyberbullying [9]. Cognitive processes play a particularly critical role in this age group, as adolescents often grapple with deeply ingrained negative thought patterns [10]. Their cognition may be dominated by feelings of hopelessness, unworthiness, or the belief that they are a burden to others, which not only heightens their emotional distress but also increases the risk of suicidal ideation and behaviors [11]. Given the profound impact of these cognitive distortions, it is essential to have reliable tools to assess and address these patterns to better understand and mitigate their risk [12]. The SCS is one such tool, specifically designed to evaluate the maladaptive beliefs associated with suicide risk [13]. Grounded in theoretical models of suicidal behavior, the SCS measures cognitive vulnerabilities such as hopelessness, perceived burdensomeness, and self-unworthiness—factors strongly linked to suicidal ideation [14]. By identifying and quantifying these thought patterns, the SCS offers valuable insights for clinicians and researchers, enabling them to develop targeted interventions [15]. These insights not only aid in understanding the cognitive underpinnings of suicide risk but also empower mental health professionals to apply therapeutic strategies, such as cognitive-behavioral therapy, to challenge and restructure these harmful beliefs, fostering resilience and reducing suicide risk among adolescents [16].

The psychometric evaluation of the SCS has been extensively studied across diverse cultural and demographic settings. Arafat et al. [17] validated the Bangla Brief Suicide Cognitions Scale (BSCS) among 529 Bangladeshi university students, demonstrating good internal consistency (Cronbach's alpha=0.84) and unidimensional construct validity, highlighting its potential application in both research and clinical contexts for Bangla-speaking populations. Similarly, Moscardini et al. [18] investigated the revised SCS (SCS-R) in a U.S. community sample of 10,625 adults, confirming its unidimensional structure through bifactor modeling and its ability to differentiate levels of suicidal ideation and behaviors, such as planning versus attempts, emphasizing its relevance for assessing suicide severity. Spangenberg et al. [19] evaluated the German versions of the SCS (SCS-18 and SCS-9) in clinical samples (n=277 outpatient, n=75 inpatient), reporting good reliability, internal consistency, and predictive validity. The German scales effectively distinguished participants with a history of suicide attempts and predicted suicidal ideation even after controlling for other risk factors. Bekaroğlu et al. [20] examined the Turkish version of the SCS-R among 442 young adults, finding robust psychometric properties and strong associations with depression, suicide probability, rumination, and self-injury, confirming its reliability and validity in identifying cognitive patterns linked to suicide risk in emerging adults. Collectively, these studies underscore the adaptability and clinical significance of the SCS and its variations in evaluating suicidal cognitions across a range of cultural and clinical contexts.

Although the SCS has been validated in diverse populations, its psychometric properties remain underexplored in adolescent samples. Adolescents differ significantly from adults in their cognitive, emotional, and social development, which may affect how they interpret and respond to the items on the scale [21]. These developmental differences suggest that the scale may not fully capture the nuances of suicidal thoughts and cognitive patterns in this age group without proper validation [22]. Additionally, cultural factors greatly influence attitudes toward mental health and suicide, underscoring the necessity of adapting and validating the SCS for specific cultural and developmental contexts [23]. This tailored approach ensures that the tool remains both accurate and effective in identifying at-risk adolescents across varied populations [24]. The evaluation of SCS in adolescent populations is of critical importance due to its unique cognitive, emotional, and developmental characteristics [25]. Adolescents are at a heightened risk of suicidal ideation and behavior, yet their cognitive processes, including perceptions of worthlessness, hopelessness, and burdensomeness, may manifest differently than in adults [26]. Validating the SCS within this population not only ensures its accuracy and cultural relevance but also enhances its utility in identifying at-risk individuals early. A reliable and culturally adapted assessment tool can significantly contribute to the development of targeted interventions, allowing mental health professionals, educators, and policymakers to design evidence-based strategies that address the specific needs of adolescents [27]. Ultimately, such efforts can reduce suicide rates and promote mental well-being in this vulnerable and pivotal stage of life [28]. This study aims to evaluate the psychometric properties of the SCS among Iranian adolescents, focusing on its validity and reliability. This research seeks to provide a culturally and developmentally appropriate tool for assessing cognitive patterns associated with suicide risk, facilitating early detection and effective intervention.

Method

The present study is a normative research project aimed at evaluating the psychometric properties of a

psychological assessment instrument, with a specific emphasis on its validity and reliability. Accordingly, a descriptive, survey-based research design was utilized. The statistical population of this study comprised students from Tehran Province during the academic year of 2024–2025. According to Tabachnick et al., for validation studies and factor analysis, a minimum sample size of 300 participants is required [29]. A sample size of 400 participants is considered optimal, and 1,000 participants is ideal. Therefore, in this study, a sample of 400 adolescents (237 girls and 163 boys) was selected using an online convenience sampling method. Inclusion criteria included personal consent, full internet access, and an age range of 14 to 18 years. Exclusion criteria included not belonging to the study population, having severe physical or psychological problems, random responses to questions, and incomplete questionnaire responses.

After obtaining permission from the developers of the questionnaires, a translation and back-translation process was carried out. In the first step, two English-proficient translators independently translated the questionnaire into Persian. A consolidated version of these translations was then prepared. Subsequently, two other translators retranslated the Persian version back into English. In the next step, the English translations were compared with the original questionnaire, and the Persian version was finalized in collaboration with the translators. This final version was then administered to a sample of individuals across different age groups. After identifying and addressing ambiguities in the questions, the final version of the questionnaire was prepared. To collect data, the questionnaires were first uploaded to Google Forms. The link was then shared with participants, who were asked to complete the survey at a time when they had full internet access. After completing the questionnaires, the data were entered into SPSS version 27 and analyzed using descriptive statistics.

The tools used in this study were as follows:

The Suicide Cognitions Scale (SCS): This tool is an 18-item self-report measure developed to assess cognitive risk factors associated with suicidal ideation [13]. Each item is scored on a Likert scale (e.g., 1 = strongly disagree to 5 = strongly agree), with total scores ranging from 18 to 90. Higher scores indicate stronger endorsement of maladaptive cognitions related to suicide, suggesting greater cognitive risk for suicidal ideation. The scale comprises three subcomponents: Unbearability (items 3, 5, 8, 13, 17), Hopelessness (items 2, 4, 7, 10, 12, 16), and Self-Hate (items 1, 6, 9, 11, 14, 15, 18). The SCS was developed by Bryan et al. [13] , demonstrating excellent reliability (Cronbach's alpha > 0.90) and validity in the original study, with strong correlations to related constructs such as hopelessness and suicidal ideation (14-15). In the present study, the Content Validity Index (CVI) and Content Validity Ratio (CVR) were employed to assess the content validity of the questionnaire, yielding values of 0.82 and 0.86, respectively, which indicate satisfactory content validity for the SCS. Reliability was evaluated using a test-retest method, where 120 participants completed the scale again after a one-week interval. The correlation between the two administrations was 0.92, significant at a 0.98 confidence level. For internal consistency, Cronbach's alpha coefficients were calculated as 0.82 for Unbearability, 0.84 for Hopelessness, 0.86 for Self-Hate, and 0.94 for the overall scale, demonstrating excellent reliability and validity.

The Beck Depression Inventory (BDI): is a widely utilized self-report questionnaire designed to assess the severity of depressive symptoms in individuals aged 13 years and older [30]. The inventory comprises 21 multiple-choice items, each reflecting a specific symptom of depression. Each item is scored on a scale from 0 to 3, resulting in a total score ranging from 0 to 63, with higher scores indicating greater severity of depressive symptoms. Regarding psychometric properties, Beck et al. [30] reported a validity coefficient of 0.96 for the BDI. Internal consistency ranged from 0.73 to 0.92, with an average value of 0.86, demonstrating robust reliability. The Cronbach's alpha coefficient, a measure of internal consistency, was reported as 0.86 for patients and 0.81 for non-patient populations. These results highlight the inventory's reliability across diverse groups [30]. In the present study, Cronbach's alpha coefficient for the BDI was calculated to be 0.87, confirming its reliability in the given sample.

The Spiritual Wellbeing Scale (SWS): This scale developed by Paloutzian and Ellison [31], is a comprehensive tool designed to measure spiritual well-being through 20 questions divided into two subscales: Religious Well-being (RWB) and Existential Well-being (EWB). The odd-numbered questions correspond to the RWB subscale, which evaluates the test-taker's experience of a satisfying relationship with God. In contrast, the even-numbered questions pertain to the EWB subscale, which assesses the individual's sense of purpose and satisfaction with life [31]. The SWS employs a 5-point Likert scale for responses, ranging from Strongly Agree to Strongly Disagree. Scoring for positive questions follows a range from 1 (Strongly Disagree) to 5 (Strongly Agree). For negative questions, the scoring is reversed, with questions 1, 2, 5, 6, 9, 12, 13, 16, and 18 identified as negative. This scoring method enables the calculation of separate scores for Religious Well-being and Existential Well-being, as well as an overall Spiritual Well-being score, which ranges from 20 to 100. The reliability of the SWS has been well-established. Test-retest reliability coefficients for the RWB subscale, EWB subscale, and the overall scale were reported as 0.96, 0.86, and 0.93, respectively. Furthermore, Cronbach's alpha coefficients were 0.91 for both the RWB and EWB subscales and 0.93 for the overall scale [31]. In the present study, Cronbach's alpha coefficients for the RWB and EWB subscales were calculated as 0.84 and 0.89, respectively, indicating strong internal consistency.

The data were scored and checked for accuracy in data entry and missing values. Subsequently, to evaluate the psychometric properties of the scale, the validity and reliability of the questionnaire were assessed. For validity evaluation, Confirmatory Factor Analysis (CFA), convergent validity, and divergent validity were utilized. To examine criterion validity, the correlation of the scale

with the BDI [30] was calculated for concurrent validity, and its correlation with the SWBS [31], along with the Average Variance Extracted (AVE), was assessed for divergent validity. The reliability of the scale was evaluated using internal consistency reliability (Cronbach's alpha) and composite reliability. The analyses were conducted using R software, version 4.2.

Results

According to the analysis, the mean age of the participants was 16.39 years (SD = 5.21). A majority of the participants (67%) were only children, while 34% reported coming from divorced families. In terms of academic performance, approximately half of the participants demonstrated below-average achievement. Additionally, 41% of the individuals reported a family history of psychological disorders. Further descriptive statistics regarding the participants have been provided in Table 1. To evaluate the normality of variable distributions, skewness and kurtosis tests were employed. Kline [32] suggests that the absolute values of skewness and kurtosis should be less than 3 and 10, respectively. According to the results, the absolute values of skewness and kurtosis for all variables are below 2, indicating that the assumption of normality is satisfied (Table 1). To assess the construct validity of the scale, CFA was conducted. The suitability of the test items for factor analysis was examined using the corrected item-total correlations. The results of this analysis are presented in Table 2.

Based on Table 2, an examination of the corrected item-total correlations reveals that all items of the SCS have correlations greater than 0.30. The positive values of all correlation coefficients indicate that all items align with the overall scale score [33]. To assess construct validity, CFA was employed. This section addresses whether the factor structure identified in EFA is validated and fits well in CFA. To ensure the CFA results demonstrate sufficient validity and robustness, this analysis was conducted on a sample distinct from the one used for EFA. The goodness-of-fit indices for the model derived from EFA are presented in Table 3.

As shown in Table 3, several indices were used to evaluate the fit of the proposed model, including Chi-Square (χ^2), Relative Chi-Square (χ^2/df), RMSEA, SRMR, GFI, CFI, NFI, NNFI, and IFI. Among these, Chi-Square is a traditional and widely used measure where non-significance at the 0.05 level indicates a very good fit [34]. However, Chi-Square has notable limitations, particularly its sensitivity to sample size [35]. In large samples, it often leads to model rejection, while in small samples, it loses power. To address this, the Relative Chi-Square (χ^2/df) was introduced. While there is no fixed threshold, values below 3 [35] or 2 [36] indicate an excellent fit. In this study, χ^2/df was calculated as 2, indicating an excellent model fit.

Table 1. Descriptive Signs and Effects of Analyzing the Normality of Research Variables

Variables	Mean	SD	Skewness	Kurtosis
Unbearability	13.22	1.89	0.15	2.35
Hopelessness	15.38	1.53	0.53	1.85
Self-Hate	18.50	1.42	0.45	2.56
Suicide Cognitions	47.09	2.74	0.36	1.91
Depression	38.93	2.38	0.781	2.40
Spiritual well-being	69.57	3.65	0.692	2.39

Table 2. Correlation of Items with Corrected Total Score

Item	Corrected item-total correlation	Item	Corrected item-total correlation	Item	Corrected item-total correlation
1	0.76	7	0.66	13	0.67
2	0.70	8	0.62	14	0.69
3	0.72	9	0.62	15	0.58
4	0.60	10	0.61	16	0.70
5	0.62	11	0.66	17	0.68
6	0.70	12	0.65	18	0.6

Table 3. Goodness-of-Fit Indices for the Three-Factor Model of the SCS

Goodness-of-Fit Indices	Calculated Values
Chi-Square (χ^2)	270.07
Degrees of Freedom (df)	132
P-Value	<0.001
Chi-Square to Degrees of Freedom Ratio (χ^2/df)	2.04
Root Mean Square Error of Approximation (RMSEA)	0.05
Standardized Root Mean Square Residual (SRMR)	0.03
Goodness-of-Fit Index (GFI)	0.93
Comparative Fit Index (CFI)	0.96
Normed Fit Index (NFI)	0.92
Non-Normed Fit Index (NNFI)	0.95
Incremental Fit Index (IFI)	0.96

The next index, RMSEA, should be less than 0.08 to indicate a good fit, with lower values reflecting controlled measurement error. In this model, RMSEA was 0.05, demonstrating a good fit [37]. Similarly, SRMR values below 0.09 indicate model adequacy, and the calculated value in this study was 0.03, showing a strong fit. Other indices, including GFI, CFI, NFI, NNFI, and IFI, range between 0 and 1, with values closer to 1 reflecting a better model fit. Values above 0.90 are indicative of excellent fit, while values above 0.80 indicate acceptable fit. In this study, these indices were calculated as follows: GFI = 0.93, CFI = 0.96, NFI = 0.93, NNFI = 0.95, and IFI = 0.96, all indicating an excellent and very satisfactory fit for the model [35]. Overall, the results of the CFA confirm that the three-factor model derived from exploratory factor analysis fits the data exceptionally well (Figure 1).

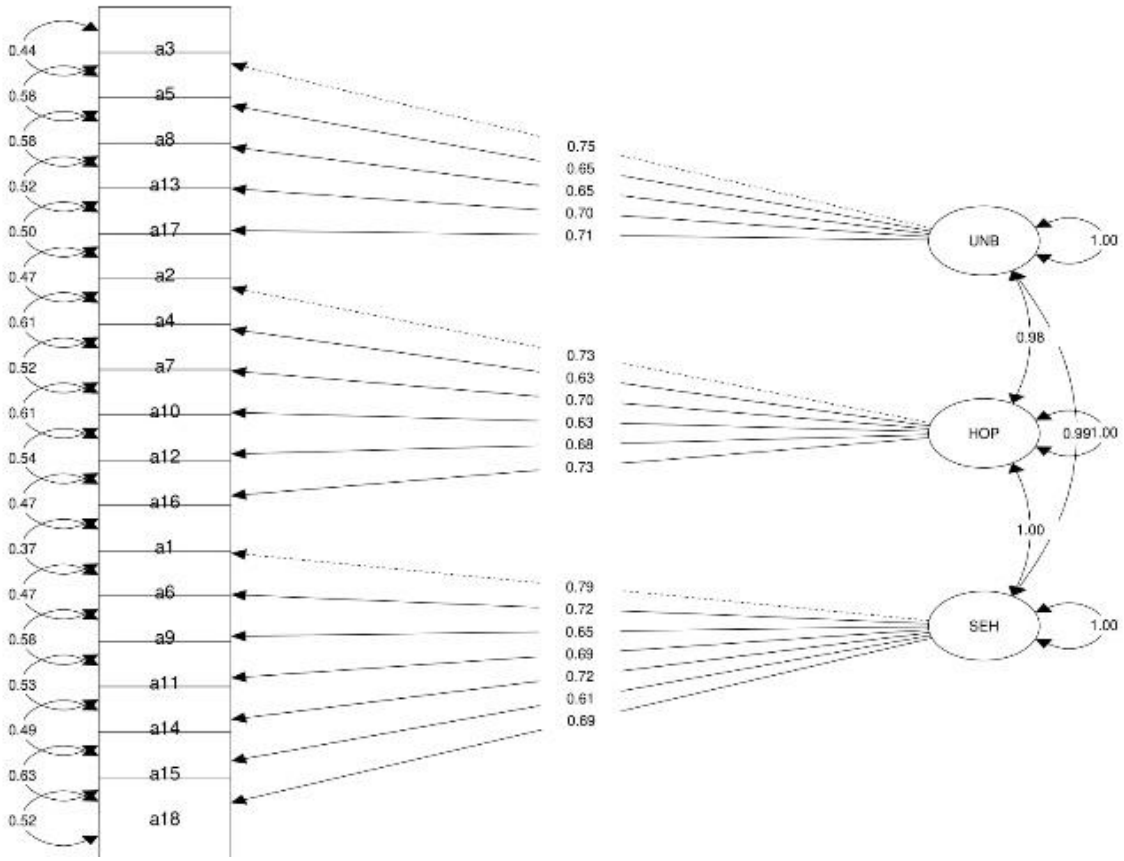

Figure 1. Three-factor model of the SCS with standardized path coefficients.

Table 4: Cronbach's Alpha, Convergent, and Divergent Correlations for the Factors of the SCS

	Cronbach's Alpha	Pearson Correlation with BDI	Pearson Correlation with SWBS
Unbearability	0.82	0.46	0.26
P	-	0.001	-0.001
Hopelessness	0.84	0.39	0.23
P	-	0.001	-0.001
Self-Hate	0.86	0.30	0.31
P	-	0.001	-0.001
Suicide Cognitions	0.94	0.56	0.22
P	-	0.001	-0.001

The convergent validity of the SCS was confirmed by calculating the Pearson correlation with the BDI. Significant and positive correlations were observed between the total scale, as well as the three factors (Unbearability, Hopelessness, and Self-Hate), and the total BDI score. Divergent validity was also confirmed through the Pearson correlation with the SWBS, where significant and inverse correlations ($p<0.05$) were found between the total scale, its three factors, and SWBS (Table 3). To evaluate the reliability of the Persian version of the SCS in Iranian adolescents, internal consistency (Cronbach's alpha), ordinal theta, and composite reliability were assessed. Cronbach's alpha values for the three factors (Unbearability, Hopelessness, and Self-Hate) were calculated as 0.82, 0.84, and 0.86, respectively, and 0.94 for the overall scale. As alpha values greater than 0.70 are considered acceptable for scale reliability, these results indicate good reliability for this scale [38]. The ordinal theta for the total scale was calculated as 0.89, which is also acceptable, as values above 0.80 are deemed sufficient. Composite reliability for the three factors was calculated as 0.82, 0.80, and 0.85, respectively, and as per Subhaktiyasa [39], values above 0.70 are acceptable, further confirming the reliability of the scale.

Table 5. Coefficients of the SCS

	Factors	Scale	b	β	T	SE	P
3		I can't stand this pain anymore	1.00	0.74	-	0.80	-
5		I can't tolerate being this upset any longer	0.91	0.64	13.01	0.73	<0.001
8	Unbearability	It is unbearable when I get this upset	0.97	0.65	13.09	0.78	<0.001
13		I can't imagine anyone being able to withstand this kind of pain	0.96	0.69	14.09	0.77	<0.001
17		I would rather die now than feel this unbearable pain	1.05	0.70	14.31	0.84	<0.001
2		Suicide is the only way to solve my problems	1.00	0.73	-	0.77	-
4		I've never been successful at anything	0.81	0.62	12.47	0.63	<0.001
7		No one can help solve my problems	1.10	0.69	13.89	0.85	<0.001
10	Hopelessness	Nothing can help solve my problems	0.89	0.62	12.45	0.69	<0.001
12		I can't cope with my problems any longer	1.05	0.67	13.50	0.81	<0.001
16		I don't deserve to live another moment	1.19	0.72	14.51	0.92	<0.001
1		The world would be better off without me	1.00	0.79	-	0.92	-
6		I can never be forgiven for the mistakes I have made	0.84	0.72	15.81	0.78	<0.001
9		I am completely unworthy of love	0.81	0.64	13.77	0.75	<0.001
11	Self-hate	It is impossible to describe how badly I feel	0.88	0.68	14.47	0.81	<0.001
14		There is nothing redeeming about me	0.89	0.71	15.60	0.82	<0.001
15		Suicide is the only way to end this pain	0.77	0.60	12.73	0.71	<0.001
18		No one is as loathsome as me	0.90	0.69	14.88	0.84	<0.001

Table 5 presents the results of the CFA. The findings indicate that all items of the SCS exhibit strong factor loadings, confirming their alignment with the scale's underlying constructs. This demonstrates that the scale items are valid and suitable for use in the Iranian population. These results provide robust evidence supporting the scale's applicability and cultural relevance in this context.

Discussion

The present study aimed to evaluate the psychometric properties of the SCS, including its validity and reliability, among Iranian adolescents. The results demonstrated that the SCS exhibits a robust three-factor structure (Unbearability, Hopelessness, and Self-Hate), with excellent model fit indices, confirming its construct validity. These factors were strongly supported through CFA and further validated by significant correlations with related constructs, indicating the scale's utility in assessing cognitive vulnerabilities associated with suicidal ideation in this population.

The psychometric properties of the SCS have been validated across various cultural and demographic contexts, consistently demonstrating reliability and validity. Arafat et al. validated the Bangla version with Cronbach's alpha = 0.84 and unidimensional construct validity among university students in Bangladesh [17]. Moscardini et al. confirmed the unidimensional structure of the revised SCS (SCS-R) in a U.S. sample of 10,625 adults, emphasizing its ability to differentiate the severity of suicidal behaviors [18]. Spangenberg et al. reported excellent reliability and predictive validity for the German versions (SCS-18 and SCS-9) in clinical samples [19]. Similarly, Bekaroğlu et al. validated the Turkish SCS-R, showing strong correlations with depression, suicide probability, and self-injury among young adults [20]. In this study, the Persian version of the SCS demonstrated similarly strong psychometric properties, including excellent internal consistency (Cronbach's alpha = 0.94 for the total scale and 0.82–0.86 for subscales) and a robust three-factor structure (Unbearability, Hopelessness, and Self-Hate). These results align with findings from previous research, further supporting the scale's adaptability and reliability in assessing suicidal cognitions across diverse populations. This consistency highlights the scale's utility for both clinical and research applications in identifying cognitive vulnerabilities associated with suicide risk [13].

The positive correlation between the SCS and depression aligns with theoretical expectations, as both constructs share overlapping cognitive patterns [25]. Suicidal cognitions, measured by the SCS dimensions (Unbearability, Hopelessness, and Self-Hate), are strongly linked to depressive symptomatology, which often includes negative self-evaluation, feelings of despair, and diminished capacity to cope with stress [12]. For instance, hopelessness is a central component of both suicidal ideation and depression, acting as a cognitive mechanism that amplifies negative thoughts about the future [20]. Similarly, self-hate reflects self-directed negativity, a hallmark of severe depression [9]. These shared cognitive and emotional pathways explain the strong, positive correlations observed, thereby confirming the convergent validity of the SCS [23].

The negative correlation between SCS and spiritual well-being highlights their contrasting theoretical foundations, supporting the divergent validity of the scale [15]. Spiritual well-being, often associated with purpose, hope, and connection, counters the cognitive patterns associated with suicidal ideation, such as hopelessness and self-hate [21]. Adolescents with higher spiritual well-being are likely to have stronger resilience, greater life satisfaction, and a more positive outlook, which buffer

against cognitive vulnerabilities linked to suicide [10]. The inverse relationship indicates that as spiritual well-being increases, maladaptive cognitions related to suicide decrease, reinforcing the protective role of spirituality in mental health and validating the SCS as a measure of cognitive vulnerabilities specific to suicidal ideation [26].

One limitation of this study is convenience sampling, which may limit the generalizability of findings to broader populations. Additionally, the reliance on self-report measures introduces the possibility of response biases. Future research should consider employing longitudinal designs and diverse sampling methods to enhance the robustness of findings. Despite these limitations, the validated SCS offers a reliable and culturally adapted tool for identifying cognitive vulnerabilities associated with suicidal ideation in adolescents. Practitioners are encouraged to integrate the SCS into mental health assessments to facilitate early intervention, while policymakers and educators should leverage its findings to design evidence-based prevention programs tailored to adolescent needs.

Conclusion

The present study demonstrated that the SCS is a psychometrically robust and reliable tool for assessing cognitive risk factors associated with suicidal ideation in Iranian adolescents. The validation process confirmed its three-factor structure with excellent fit indices, while its strong correlations with depression and spiritual well-being scales supported its concurrent and divergent validity. High internal consistency across all subscales further emphasizes its reliability. Given its multidimensional nature, the SCS holds significant potential for both clinical and research applications, aiding in the early detection and prevention of suicidal ideation in adolescent populations. These findings underscore the utility of the SCS in contributing to targeted interventions and mental health strategies.

Conflict of Interest

The authors declare no conflicts of interest related to this study or its publication.

Ethical Approval

This article was extracted from the doctoral thesis in psychology approved by Tarbiat Modares University by the first author in 2024. The current study was approved by the Ethics Committee of Tarbiat Modares University (Code: IR.MODARES.REC.1403.062).

Declaration of Generative AI and AI-Assisted Technologies

During the preparation of this work, the authors used Grammarly in order to enhance the quality of the text by improving grammar, spelling, and clarity. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

Acknowledgment

The authors thank the participants who generously shared their time and insights for this study. Special appreciation is also expressed to the research team and supporting institutions for their valuable assistance and resources throughout the research process. Their contributions were instrumental in the successful completion of this work.

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