

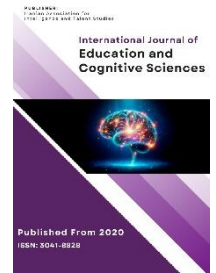


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# Psychometric Properties of the Short Form of the Self-Criticism/Self-Reassurance Scale among University Students

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### ABSTRACT

**Purpose:** This study aimed to examine the psychometric properties of the Persian short form of the Self-Criticism/Self-Reassurance Scale among university students.

**Methods and Materials:** The present study was a descriptive psychometric validation study. The statistical population consisted of university students in Tehran during the 2025–2026 academic year. A total of 573 students were selected using convenience sampling. The research instruments included the Short Form of the Self-Criticism/Self-Reassurance Scale (FSCRS-SF), the Depression, Anxiety, and Stress Scale-21 (DASS-21), the Self-Compassion Scale–Short Form (SCS-SF), and the Self-Critical Rumination Scale (SCRS). Content validity, confirmatory factor analysis, convergent and divergent validity, and internal consistency reliability were examined.

**Findings:** The content validity results indicated that three items were removed due to low content validity ratio, and the final 11-item version was retained for subsequent analyses. Confirmatory factor analysis supported a two-factor structure consisting of self-criticism and self-reassurance, and the model fit indices indicated acceptable to favorable fit. Correlational analyses showed that self-criticism had positive and significant associations with depression, anxiety, stress, and self-critical rumination, while it had negative and significant associations with self-compassion and self-reassurance. In contrast, self-reassurance was negatively and significantly associated with negative emotional symptoms and self-critical rumination, and positively and significantly associated with self-compassion. Cronbach's alpha and McDonald's omega coefficients for the self-criticism and self-reassurance subscales indicated satisfactory internal consistency.

**Conclusion:** The findings support the validity and reliability of the Persian 11-item short form of the Self-Criticism/Self-Reassurance Scale among university students. This instrument can be used as a brief, valid, and practical measure in preliminary psychological research and screening contexts.

**Keywords:** *Self-criticism; Self-reassurance; Psychometric properties; University students*

## 1. Introduction

Self-criticism is a central transdiagnostic construct in contemporary clinical and personality psychology, referring to a harsh, evaluative, punitive, and often hostile form of self-relating in which individuals respond to perceived failures, shortcomings, mistakes, or negative emotions through blame, condemnation, shame, and self-directed attack. Although some degree of self-evaluation may serve adaptive self-regulatory functions, chronic and intense self-criticism is qualitatively different from constructive self-reflection because it is characterized by an internalized pattern of threat, inadequacy, and rejection toward the self. Early conceptualizations distinguished between different levels and forms of self-criticism, including comparative self-criticism, in which individuals evaluate themselves unfavorably in relation to others, and internalized self-criticism, in which the self is judged against rigid internal standards and punitive self-expectations (Thompson & Zuroff, 2004). From this perspective, self-criticism is not merely a cognitive style but a complex self-evaluative and affective process that shapes emotional regulation, interpersonal behavior, vulnerability to psychopathology, and resilience under stress. Theoretical and empirical work has therefore increasingly emphasized the need to understand self-criticism not as an isolated symptom, but as an enduring self-to-self relationship pattern that can undermine psychological well-being across developmental and clinical contexts (Shahar, 2015; Werner et al., 2019).

A major contribution to this field has been made by compassion-focused theory, which conceptualizes self-criticism within the broader framework of evolved affect-regulation systems. According to this framework, harsh self-criticism is closely linked to the threat and protection system, whereas self-reassurance reflects the capacity to activate affiliative, soothing, and safeness-based responses toward oneself during distress or perceived failure (Gilbert, 2017). Gilbert and colleagues argued that individuals differ not only in the intensity of their self-critical thoughts but also in the form, function, and emotional tone of their self-attacking processes. In their foundational work on criticizing and reassuring oneself, they showed that self-criticism may include feelings of inadequacy, disgust, hatred, and the desire to punish or eliminate aspects of the self, while self-reassurance involves warmth, acceptance, encouragement, and the ability to remain emotionally supportive toward oneself in difficult situations (Gilbert & Irons, 2004). This

distinction is particularly important because self-reassurance is not simply the absence of self-criticism; rather, it represents a positive self-regulatory capacity that may protect individuals against emotional dysregulation and psychopathology.

The clinical relevance of self-criticism has been demonstrated across a wide range of psychological outcomes. A systematic review update showed that clinical trait self-criticism is consistently associated with depressive symptoms, anxiety, eating pathology, personality dysfunction, and other forms of psychological distress, confirming its role as a broad vulnerability factor in mental health problems (Werner et al., 2019). Self-criticism has also been described as an erosive process that gradually weakens self-worth, emotional stability, and interpersonal functioning, thereby increasing vulnerability to psychopathology over time (Shahar, 2015). More recent qualitative evidence has further clarified that self-criticism is experienced as a multifaceted phenomenon involving internal attacks, perceived failure, shame, fear of judgment, motivational conflict, and attempts to prevent future mistakes through harsh self-control (Zaccari et al., 2024). These findings suggest that self-criticism has both affective and motivational components; while individuals may believe that criticizing themselves helps them improve, the psychological consequences are often maladaptive, especially when criticism becomes rigid, repetitive, and emotionally punitive.

The association between self-criticism and negative emotional states is especially relevant among university students, who frequently encounter academic pressure, identity development challenges, social comparison, performance demands, and uncertainty about the future. Student populations are often exposed to stressors that may activate internal evaluative processes, particularly when academic achievement and self-worth become closely linked. Studies in university samples have shown that self-criticism is positively related to stress and psychopathological symptoms, whereas self-reassurance is associated with better mental health indicators (Kotera, Green, et al., 2021). In therapeutic and helping-profession students, self-criticism has also been linked with poorer mental health and less adaptive attitudes toward the self, while self-compassion appears to function as a protective factor (Kotera, Dosedlova, et al., 2021). Iranian evidence similarly suggests that self-criticism is meaningfully associated with mental health, emotion regulation, attachment-related variables, and social appearance

concerns among students and young people (Farrokhi, 2023; Yousefi Moridani et al., 2020). These findings indicate that the assessment of self-criticism in university students is not only theoretically important but also practically valuable for screening, prevention, counseling, and intervention planning in academic settings.

A related construct that has received growing attention is self-critical rumination, which refers to repetitive, intrusive, and persistent thinking about perceived personal flaws, mistakes, or failures. Whereas self-criticism can occur as a momentary evaluative response, self-critical rumination reflects a perseverative cognitive process that maintains and intensifies self-attacking thoughts over time. Smart and colleagues developed a specific measure of self-critical rumination and showed that this construct is distinct from general rumination while maintaining strong associations with psychological distress and maladaptive self-evaluation (Smart et al., 2016). In Iran, Shahian and colleagues validated the Persian version of the Self-Critical Rumination Scale among students and confirmed its psychometric adequacy, supporting its relevance for research on self-critical processes in Iranian academic populations (Shahian et al., 2024). The inclusion of self-critical rumination in psychometric validation studies of self-criticism measures is therefore conceptually justified, because a valid measure of self-criticism should demonstrate theoretically expected associations with repetitive self-critical thought patterns.

Self-compassion represents another key construct in this domain. It is commonly defined as a kind, mindful, and nonjudgmental orientation toward oneself in the face of suffering, inadequacy, or failure. The short form of the Self-Compassion Scale was developed to provide a brief and psychometrically supported measure of self-compassion, including dimensions such as self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification (Raes et al., 2011). In Iranian research, Khanjani and colleagues examined the psychometric properties of the Persian short form of the Self-Compassion Scale and reported acceptable reliability and validity, supporting its use in Iranian samples (Khanjani et al., 2016). Theoretically, self-compassion and self-reassurance are closely related but not identical constructs. Self-compassion reflects an accepting and caring stance toward one's suffering, whereas self-reassurance refers more specifically to the capacity to respond to setbacks, mistakes, and self-attacking thoughts with encouragement and emotional support. Both constructs are expected to show negative

associations with self-criticism and positive associations with adaptive self-regulation.

The intervention literature further supports the clinical importance of reducing self-criticism and strengthening compassionate or reassuring self-relating. Compassionate mind training was originally developed for individuals with high shame and self-criticism and emphasized the cultivation of affiliative emotions, compassionate imagery, and a more supportive internal self-to-self dialogue (Gilbert & Procter, 2006). Earlier pilot work also suggested that compassionate imagery may help highly self-critical individuals develop alternative self-relating patterns and reduce the dominance of hostile internal criticism (Gilbert et al., 2004). Recent evidence has strengthened these early findings. A meta-analysis indicated that compassion-focused therapy has beneficial effects on self-criticism and self-soothing, suggesting that self-critical processes are modifiable through compassion-based therapeutic approaches (Vidal & Soldevilla, 2023). Similarly, a systematic review and meta-analysis of self-compassion-related interventions found that such interventions are effective in reducing self-criticism, supporting the relevance of self-compassion and self-reassurance as intervention targets (Wakelin et al., 2022). In Iranian adolescent samples, acceptance and commitment-based training has also been shown to improve cognitive emotion regulation and reduce self-criticism, indicating that self-critical processes are clinically meaningful and responsive to psychological intervention in local contexts (Abedi & Naseri, 2025).

Beyond general distress, self-criticism has been linked with severe clinical outcomes, including suicidality. O'Neill and colleagues demonstrated that self-criticism is associated with suicide probability, highlighting the need for accurate assessment of this construct in both research and clinical screening (O'Neill et al., 2021). Moreover, self-criticism may act as a mediating or maintaining mechanism in the relationship between adverse developmental experiences and psychopathology. Lassri and Gewirtz-Meydan found that self-compassion moderated the mediating effect of self-criticism in the relationship between childhood maltreatment and psychopathological symptoms, suggesting that compassionate self-relating may buffer the harmful psychological consequences of self-critical processes (Lassri & Gewirtz-Meydan, 2022). Recent work has also emphasized that self-criticism and self-compassion may vary across domains rather than functioning only as stable global traits, meaning that individuals may be highly self-critical in some areas of life while showing greater self-

compassion in others (Zuroff et al., 2021). This domain-sensitive view reinforces the need for psychometrically sound instruments capable of capturing reliable and interpretable dimensions of self-criticism and self-reassurance.

Given the theoretical and clinical significance of self-criticism, valid and efficient measurement tools are essential. One of the most influential instruments in this field is the Forms of Self-Criticizing/Attacking and Self-Reassuring Scale, originally developed to assess inadequate self, hated self, and reassured self. However, because full-length measures may be burdensome in large-scale research, screening contexts, or studies that include multiple instruments, short forms are often necessary. Sommers-Spijkerman and colleagues developed and validated the short form of the Forms of Self-Criticizing/Attacking and Self-Reassuring Scale, providing evidence for a brief measure that can efficiently assess self-critical and self-reassuring tendencies while maintaining adequate psychometric quality (Sommers-Spijkerman et al., 2018). Subsequent validation work in Spain supported the psychometric properties and clinical usefulness of the FSCRS-SF, further indicating that the short form may be suitable across different cultural and linguistic contexts when properly translated and validated (Navarrete et al., 2021). Nevertheless, psychometric properties cannot be assumed to transfer automatically across languages and cultures; each adapted version requires empirical evaluation of content validity, factor structure, reliability, and associations with theoretically related constructs.

Psychometric adaptation is particularly important in the Iranian context, where cultural, linguistic, and social norms may influence how individuals interpret self-critical and self-reassuring items. Translation alone is insufficient for establishing equivalence, because items must also be evaluated for conceptual clarity, cultural relevance, content representativeness, and response interpretability. Instrument development and adaptation studies therefore typically include expert evaluation of content validity, including the content validity ratio and content validity index, to determine whether items are essential, relevant, clear, and appropriately worded for the target population (Zamanzadeh et al., 2014). Such procedures are especially relevant when adapting scales that assess sensitive internal experiences such as self-hatred, self-attack, shame, and self-reassurance, because direct translation may not fully capture the emotional and cultural nuances of self-directed evaluation. Recent methodological discussions in psychological and

behavioral research also emphasize the importance of rigorous validation procedures when instruments are used to support scientific inference, especially in emerging or applied research contexts (Miralmasi & Moradi, 2026).

In addition to content and construct validity, convergent validity must be examined through associations with established measures of theoretically related constructs. The Depression, Anxiety, and Stress Scale-21 is widely used to assess negative emotional symptoms, and its Persian validation has supported its applicability in Iranian populations (Sahebi et al., 2005). A valid measure of self-criticism would be expected to correlate positively with depression, anxiety, stress, and self-critical rumination, given the extensive evidence linking harsh self-evaluation with psychopathology and repetitive negative self-focused cognition. Conversely, self-reassurance should be negatively associated with these negative emotional indicators and positively associated with self-compassion, reflecting its role as an adaptive self-regulatory capacity. Therefore, simultaneous examination of self-criticism, self-reassurance, self-compassion, emotional distress, and self-critical rumination can provide a comprehensive validity framework for evaluating the Persian short form of the scale among students.

Despite the growing international literature on self-criticism and self-reassurance, the availability of brief, culturally adapted, and psychometrically supported Persian instruments remains limited. Existing Iranian studies have examined related constructs such as self-compassion, self-critical rumination, emotion regulation, mental health symptoms, and self-critical tendencies, but there remains a need for a concise measure that directly assesses both maladaptive self-criticism and adaptive self-reassurance in university students. Such an instrument would be valuable for psychological assessment, student mental health research, prevention programs, and intervention studies aimed at reducing harsh self-evaluation and strengthening compassionate self-relating. Therefore, the present study aimed to examine the psychometric properties of the Persian short form of the Self-Criticism/Self-Reassurance Scale among university students.

## 2. Methods and Materials

### 2.1. Study Design and Participants

The present study employed a descriptive psychometric validation design to examine the validity and reliability of the Persian short form of the Self-Criticism/Self-

Reassurance Scale among university students. The statistical population included all university students studying in Tehran during the 2025–2026 academic year. From this population, 573 students were selected through convenience sampling. The sample size was considered adequate for the psychometric aims of the study, particularly for factor analytic procedures, because validation studies require sufficiently large samples to obtain stable, interpretable, and reliable estimates of the latent structure of measurement instruments. In psychometric research, especially when confirmatory factor analysis is used, sample size adequacy is a key methodological consideration, as small samples may produce unstable factor loadings, inflated standard errors, or unreliable fit indices. Based on methodological recommendations, Hair et al. (2019) emphasized the importance of adequate sample size in factor analysis, and Comrey and Lee (1992) described a sample size of 500 as very good and 1,000 as excellent. Accordingly, the sample of 573 participants in the present study provided an appropriate empirical basis for evaluating the psychometric properties of the instrument. Before the main analyses, the translation and cultural adaptation process of the original 14-item scale was conducted. First, the original English version was translated into Persian by several translators proficient in English. The translated versions were then compared, reconciled, and reviewed by psychology faculty members who were also familiar with English. In the next stage, to ensure conceptual and linguistic equivalence, the Persian version was back-translated into English by an independent translator. The back-translated version was compared with the original scale, and after review and approval by psychology experts, the face validity of the Persian version was confirmed.

## 2.2. Measures

The Short Form of the Self-Criticism/Self-Reassurance Scale was used to assess self-critical and self-reassuring responses. This scale was originally proposed by Sommers-Spijkerman et al. (2018) and was designed to measure different aspects of self-evaluation and self-relating. The original short form consisted of 11 items and assessed three independent dimensions, including inadequate self, hated self, and reassured self, represented by three, three, and five items, respectively. Participants respond to the items using a five-point Likert scale ranging from 0, meaning “not at all like me,” to 4, meaning “extremely like me.” Higher scores indicate higher levels of perceived inadequacy, self-hatred,

or self-reassurance, depending on the relevant subscale. Sommers-Spijkerman et al. (2018) examined the psychometric properties of this form in a sample of 576 adults and reported Cronbach’s alpha coefficients ranging from 0.79 to 0.81 for the subscales, indicating satisfactory internal consistency. In the present study, the psychometric properties of the Persian version of this instrument were examined. Based on content validity results, three items were removed because of low content validity ratio, and the final 11-item version was retained for analysis. The results of the analyses in the present sample indicated that the questionnaire had a two-factor structure, consisting of self-reassurance, represented by items 1, 2, 4, 7, and 10, and self-criticism, represented by items 3, 5, 6, 8, 9, and 11.

The Depression, Anxiety, and Stress Scale-21 was used to assess symptoms of depression, anxiety, and stress. This scale was developed by Lovibond and Lovibond (1995) and consists of 21 items organized into three subscales: depression, anxiety, and stress. Each subscale includes seven items, and responses are scored on a four-point Likert scale ranging from 0, meaning “did not apply to me at all,” to 3, meaning “applied to me very much.” The scale is widely used in psychological research to measure negative emotional states and provides separate scores for each of the three symptom domains. In the original psychometric evaluation, Lovibond and Lovibond (1995) reported Cronbach’s alpha coefficients of 0.91 for depression, 0.84 for anxiety, and 0.90 for stress, demonstrating strong internal consistency. The Persian validation of this scale was conducted by Sahebi, Asghari, and Salari (2005), who confirmed its satisfactory psychometric properties in an Iranian sample. In that study, Cronbach’s alpha coefficients for depression, anxiety, and stress were reported as 0.77, 0.79, and 0.78, respectively, indicating acceptable reliability for use in Iranian research contexts. In the present study, this instrument was used to examine the convergent validity of the Self-Criticism/Self-Reassurance Scale by assessing the associations of self-criticism and self-reassurance with negative emotional symptoms.

The Self-Critical Rumination Scale was used to measure self-critical rumination. This scale was developed by Smart et al. (2016) and consists of 10 items designed to assess repetitive and ruminative self-critical thinking. The items are organized within a single-factor structure, and respondents rate each item on a four-point Likert scale ranging from 1, meaning “not at all,” to 4, meaning “very much.” The total score ranges from 10 to 40, with higher scores indicating greater levels of self-critical rumination. The original

psychometric evidence showed that the scale had desirable reliability, with a Cronbach's alpha coefficient of 0.92 and a test-retest reliability coefficient of 0.86, indicating both strong internal consistency and temporal stability. The Persian version of this instrument was validated among Iranian university students by Shahian, Molaei, and Saadat (2024). Their findings confirmed the reliability of the scale, with a test-retest reliability coefficient of 0.73 and a Cronbach's alpha coefficient of 0.90. In the present study, this scale was used as a theoretically relevant criterion measure to evaluate the convergent validity of the self-criticism dimension, because self-critical rumination is conceptually expected to be positively associated with self-critical responses and negatively associated with adaptive self-reassurance.

The Self-Compassion Scale-Short Form was used to assess self-compassion. This instrument was developed by Raes et al. (2011) and includes 12 items that measure the six core components of self-compassion: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. Items are scored on a five-point Likert scale ranging from 1, meaning "almost never," to 5, meaning "almost always." Higher scores indicate higher levels of self-compassion. Raes et al. (2011) reported satisfactory internal consistency for the scale, with a Cronbach's alpha coefficient of 0.86 for the total score. The psychometric properties of the Persian version of this scale were examined by Khanjani et al. (2016), who reported a Cronbach's alpha coefficient of 0.79, indicating acceptable reliability in Iranian samples. In the present study, the Self-Compassion Scale-Short Form was used to examine divergent and convergent validity patterns. Conceptually, self-compassion was expected to correlate negatively with self-criticism and positively with self-reassurance, because self-compassion reflects an adaptive, accepting, and nonjudgmental orientation toward the self.

### 2.3. Data Analysis

Data analysis was conducted in several stages in accordance with the psychometric objectives of the study. First, the content validity of the Persian version of the scale was examined to determine whether the translated items were conceptually appropriate, culturally relevant, and representative of the construct. Items with inadequate content validity ratio were removed before conducting the main analyses. Next, confirmatory factor analysis was performed to evaluate the latent structure of the scale and to

determine whether the data supported the expected factor model. Model fit was assessed using standard goodness-of-fit indices, and the adequacy of the factor structure was evaluated based on the pattern and strength of factor loadings as well as overall model fit. After confirming the factor structure, convergent and divergent validity were examined through correlational analyses between the self-criticism and self-reassurance dimensions and theoretically related variables, including depression, anxiety, stress, self-critical rumination, and self-compassion. Positive associations between self-criticism and negative emotional symptoms or self-critical rumination were interpreted as evidence of convergent validity, while negative associations between self-criticism and self-compassion or self-reassurance were interpreted as evidence of theoretically consistent divergent validity. Similarly, negative associations between self-reassurance and depression, anxiety, stress, and self-critical rumination, along with its positive association with self-compassion, were considered supportive of construct validity. Finally, the internal consistency reliability of the subscales was assessed using Cronbach's alpha and McDonald's omega coefficients. These indices were used to determine the degree to which the items within each subscale consistently measured the same underlying construct.

### 3. Findings and Results

Analysis of the demographic characteristics of the 573 participants in the present study showed that, in terms of gender distribution, the majority of the statistical sample consisted of women, with a frequency of 411 participants (71.7%), while men accounted for 162 participants (28.3%). Regarding marital status, most respondents were single (521 participants, 90.9%), and the remaining participants were married (52 participants, 9.1%). Examination of participants' educational level indicated that the highest frequency belonged to the bachelor's degree level, with 49.0% (281 participants), followed by master's degree with 23.9% (137 participants), high school diploma with 21.8% (125 participants), associate degree with 3.0% (17 participants), and doctoral degree with 2.3% (13 participants). Finally, the descriptive findings related to age showed that the mean age of the respondents was 23.54 years with a standard deviation of 6.47, with the youngest participant being 18 years old and the oldest participant being 55 years old.

The findings related to determining the psychometric indices of the Self-Criticism Scale are reported in two sections: validity and reliability.

In this study, face validity, content validity, construct validity, and convergent validity methods were used to examine the validity of the scale.

In examining the face validity of the Self-Criticism Scale, both qualitative and quantitative methods were used. Qualitative face validity was evaluated by a five-member group, consisting of two counselors and three university professors, to determine the extent of item irrelevance, ambiguity in statements, or inadequacy in the meaning of words. Their comments were applied as minor modifications to the questionnaire. In determining quantitative face validity, the impact score of each item was calculated. For this purpose, first, a five-point Likert scale ranging from “not at all like me” (1) to “completely like me” (5) was considered for each of the 14 items of the scale. Then, the scale was given to 11 participants for validity evaluation. After the scale was completed by the target group, face validity was calculated using the item impact score formula, and all items were evaluated as acceptable in terms of face validity.

Content validity concerns the extent to which the items cover the intended construct. It can be examined both qualitatively and quantitatively. In the qualitative

assessment of content validity, five professors were asked to carefully review the items of the scale and provide their corrective comments in writing. They were also asked to consider grammar, the use of appropriate words, the importance of the items, the placement of items in their appropriate position, and the completion time of the designed instrument when evaluating qualitative content validity. After collecting the experts' comments, the necessary changes were made to the scale. Then, for the quantitative evaluation of content validity, the content validity ratio was used to ensure that the most important and accurate content had been selected, and the content validity index was used to ensure that the scale items had been designed in the best possible way to measure the intended content. To measure the content validity ratio, 11 experts were asked to rate each item on a three-point Likert scale: “not necessary” (1), “useful but not necessary” (2), and “necessary” (3). The obtained results are presented in Table 1. The content validity index was measured based on three criteria, namely “simplicity and fluency,” “relevance,” and “clarity,” using a four-point Likert scale: “irrelevant” (1), “requires serious revision” (2), “relevant but requires revision” (3), and “completely relevant” (4). The obtained results are presented in Table 1.

**Table 1**

*Content Validity Index and Content Validity Ratio for the Items of the Self-Criticism Scale*

No.	Items	Clarity (1–4)	Relevance (1–4)	Simplicity and Fluency (1–4)	Necessity (1–3)
1	I am able to remind myself of positive aspects related to myself.	0.90	1.00	0.81	0.81
2	It is difficult for me to control anger and frustration toward myself.	0.90	0.81	0.90	0.27
3	It is easy for me to forgive myself.	0.72	0.81	0.81	0.63
4	Part of me feels that I am not good enough.	1.00	0.90	1.00	1.00
5	I still like being myself.	1.00	0.81	0.81	0.81
6	I have become so angry with myself that I want to hurt myself.	0.90	0.90	0.90	0.63
7	I feel disgust toward myself.	1.00	1.00	1.00	0.63
8	I can still feel lovable and acceptable.	1.00	0.90	0.90	0.81
9	I no longer care about myself.	1.00	1.00	0.90	0.81
10	I recall my failures and become mentally preoccupied with them.	1.00	1.00	0.90	0.81
11	I insult myself.	1.00	1.00	0.90	0.27
12	I think I deserve self-criticism.	1.00	1.00	0.90	0.81
13	Part of me wants to get rid of aspects of myself that I dislike.	0.81	0.90	0.90	0.45
14	I encourage myself for the future.	1.00	0.90	1.00	0.63

After finalizing the initial Persian version, the scale items were provided to 11 psychology experts and faculty members in the form of content validity ratio and content

validity index forms to examine content validity (Lawshe, 1975; Mir Almasi & Moradi, 2026). The experts were asked to evaluate the necessity, appropriateness, clarity, and

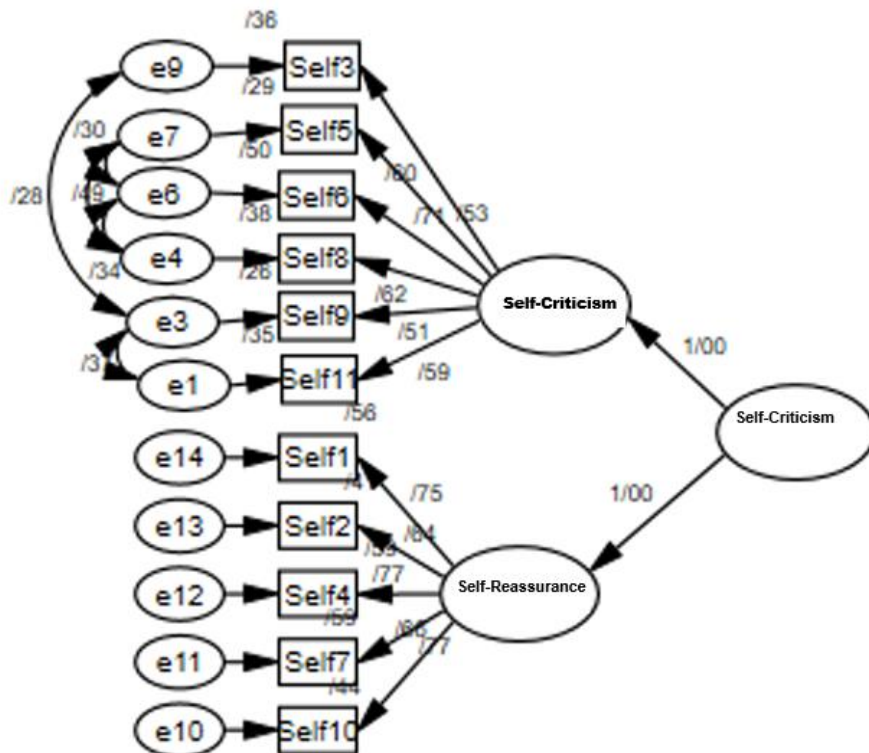
relevance of each item to the construct being measured. Accordingly, the CVR and CVI indices were calculated for all items and used as the basis for decisions regarding item retention, revision, or deletion (Lawshe, 1975). Based on the evaluation of 11 experts and according to Lawshe’s table, the minimum acceptable CVR value was considered to be 0.59. The results showed that items 2, 11, and 13 had CVR values below the threshold; therefore, due to insufficient expert agreement regarding the necessity of these items, they were removed from the final version (Lawshe, 1975). The results also showed that the CVI values of all items exceeded the minimum acceptable value of 0.79, indicating the appropriateness of the item content from the experts’ perspective (Zamanzadeh et al., 2014).

The construct validity of the Self-Criticism Scale was evaluated using confirmatory factor analysis with the maximum likelihood method. Before conducting factor analyses, it is important to examine the descriptive characteristics and the distributional form of the data. In this

study, skewness and kurtosis indices were used to assess the normality of the data. Data analysis showed that the minimum skewness value was  $-1.632$  and the maximum skewness value was  $0.234$ . In addition, the minimum kurtosis value was  $-1.142$  and the maximum kurtosis value was  $2.101$ . Considering the acceptable ranges for skewness and kurtosis, which are  $\pm 2$  and  $\pm 5$ , respectively, these values indicated that the data distribution was normal. Mahalanobis distance was also used to identify outliers, through which a number of data points were identified as outliers (27 cases) and removed from the dataset. Then, confirmatory factor analysis using the maximum likelihood method was conducted to examine the construct validity of the scale. In this method, the factor loadings of the items are first examined, and any item with a negative factor loading or a factor loading lower than  $0.50$  is removed. As shown in Figure 1, none of the items of the Self-Criticism Scale were removed.

**Figure 1**

*Confirmatory Factor Analysis with Factor Loadings for the Self-Criticism Scale ( $p < .001$ )*



The adequacy of a model can be examined using indices known as goodness-of-fit indices. The acceptable values for these indices are as follows: values lower than 5 for the chi-square to degrees of freedom ratio, values lower than 0.08

for the root mean square error of approximation, and values greater than 0.90 for the incremental fit index, Tucker–Lewis index, comparative fit index, goodness-of-fit index, and adjusted goodness-of-fit index for the final model to be

accepted. The results obtained from examining the fit indices of the measurement model indicated an appropriate fit of the model to the data of the Self-Criticism Scale: chi-square to degrees of freedom ratio = 2.87, incremental fit index = 0.969, comparative fit index = 0.969, Tucker–Lewis index = 0.956, goodness-of-fit index = 0.958, adjusted goodness-of-

fit index = 0.929, and root mean square error of approximation = 0.063.

In this study, Pearson’s correlation coefficient between this scale and the measures of self-compassion, anxiety, depression, and self-critical rumination was used to examine the convergent validity of the Self-Criticism Scale.

**Table 2**

*Correlations among the Study Variables*

No.	Variable	1	2	3	4	5	6	7
1	Self-criticism	1						
2	Anxiety	0.556**	1					
3	Stress	0.628**	0.689**	1				
4	Depression	0.728**	0.625**	0.700**	1			
5	Self-reassurance	-0.666**	-0.404**	-0.527**	-0.668**	1		
6	Self-critical rumination	0.728**	0.578**	0.699**	0.721**	-0.633**	1	
7	Self-compassion	-0.731**	-0.493**	-0.682**	-0.689**	0.720**	-0.753**	1

Note. \*\* $p < .01$ ; \* $p < .05$ .

Based on the results of Table 2, significant correlations were observed among all study variables at the .01 level. Self-compassion had significant negative relationships with stress, anxiety, depression, self-critical rumination, and self-criticism, with correlation coefficients of  $-0.682$ ,  $-0.493$ ,  $-0.689$ ,  $-0.753$ , and  $-0.731$ , respectively. This finding indicates that, as self-compassion scores increase, according to the scoring method of the instrument, negative emotional variables and components of self-criticism decrease. In addition, stress, anxiety, and depression had relatively strong positive relationships with one another; the correlation between stress and anxiety was 0.689, between stress and depression was 0.700, and between anxiety and depression was 0.625. Self-critical rumination also had significant positive relationships with stress, anxiety, depression, and

self-criticism. In contrast, self-reassurance showed significant negative relationships with all study variables except self-compassion. Overall, the findings indicate that stress, anxiety, depression, self-critical rumination, and self-criticism are positively associated with one another in the same direction, whereas self-reassurance has an inverse relationship with these variables and may be interpreted as a protective factor against negative emotional states and self-critical tendencies.

In this study, Cronbach’s alpha coefficient was used to examine the reliability of the Self-Criticism Scale, and test–retest reliability was used to examine its stability. If the Cronbach’s alpha coefficient and test–retest reliability coefficient of an instrument are greater than 0.70, the instrument is considered to have acceptable reliability.

**Table 3**

*Cronbach’s Alpha and Omega Reliability Coefficients for the Self-Criticism Scale*

Variable	Cronbach’s Alpha Coefficient	Omega Coefficient
Self-reassurance	0.846	0.846
Self-criticism	0.842	0.840

Based on the results of Table 3, the Cronbach’s alpha coefficient for the self-reassurance scale was 0.846 and its omega coefficient was 0.846. The Cronbach’s alpha coefficient for self-criticism was 0.842 and its omega coefficient was 0.840. These coefficients indicate that the self-reassurance and self-criticism components have desirable internal consistency and that their items possess

appropriate coherence in measuring the intended construct. Overall, the obtained values indicate the desirable reliability of the instrument and show that this scale had appropriate internal reliability for use in the present study. To examine the reliability of the self-reassurance and self-criticism components, the six Guttman lambda coefficients were used. The results showed that, for the self-criticism component

with six items, the Guttman lambda values ranged from 0.702 to 0.846; lambda 1 was 0.702, lambda 2 was 0.846, lambda 3 was 0.842, lambda 4 was 0.828, lambda 5 was 0.821, and lambda 6 was 0.838. In addition, for the self-reassurance component with five items, the Guttman lambda coefficients ranged from 0.677 to 0.846; lambda 1 was 0.677, lambdas 2 and 3 were both 0.846, lambda 4 was 0.807, and lambdas 5 and 6 were both 0.818. Considering that most of the obtained coefficients were above 0.70, it can be concluded that both components had acceptable to desirable reliability and that the instrument used to measure self-reassurance and self-criticism had appropriate internal consistency.

#### 4. Discussion and Conclusion

The present study was conducted to examine the psychometric properties of the Persian short form of the Self-Criticism/Self-Reassurance Scale among university students. Overall, the findings supported the validity and reliability of the adapted instrument and indicated that the Persian version can be used as a brief and psychometrically acceptable tool for assessing maladaptive self-criticism and adaptive self-reassurance in student populations. The results of the content validity assessment showed that three items were removed because their content validity ratio values were below the acceptable threshold based on expert judgment, while the content validity index values of the remaining items were acceptable. This finding indicates that, after translation and cultural adaptation, most items were judged by experts to be clear, relevant, simple, and representative of the intended construct. The use of expert-based content evaluation is particularly important in the adaptation of psychological instruments because literal translation alone cannot guarantee conceptual equivalence, especially for constructs such as self-criticism, shame, self-attack, and self-reassurance, which may carry culturally specific meanings. The present findings are consistent with methodological recommendations emphasizing the need to examine both the content validity ratio and the content validity index when adapting or developing psychological measures (Zamanzadeh et al., 2014). They are also aligned with broader methodological work highlighting the importance of rigorous instrument validation before using psychological measures for research-based inference (Miralmasi & Moradi, 2026).

The results of confirmatory factor analysis supported the construct validity of the Persian short form and showed that

the scale had a two-factor structure consisting of self-criticism and self-reassurance. The model fit indices were within acceptable ranges, including the chi-square to degrees of freedom ratio, incremental fit index, comparative fit index, Tucker–Lewis index, goodness-of-fit index, adjusted goodness-of-fit index, and root mean square error of approximation. These findings indicate that the data were compatible with a theoretically meaningful distinction between negative, punitive, and critical self-relating on the one hand and supportive, reassuring, and accepting self-relating on the other. This result is consistent with the theoretical foundations of the original scale, in which self-criticism and self-reassurance were conceptualized as related but distinct forms of self-to-self responding (Gilbert & Irons, 2004). In Gilbert’s model, self-criticism is linked to threat-based emotional processing, shame, inadequacy, and self-directed hostility, whereas self-reassurance reflects the capacity to activate affiliative and soothing emotional systems in response to distress (Gilbert, 2017). Therefore, the emergence of a two-factor structure in the present study supports the assumption that self-reassurance is not merely the reverse of self-criticism but represents a distinct protective capacity.

The two-factor structure obtained in the present study is also broadly consistent with previous validation studies of the short form of the Forms of Self-Criticizing/Attacking and Self-Reassuring Scale. Sommers-Spijkerman and colleagues developed the short form to provide a concise measure of self-critical and self-reassuring tendencies and reported that the instrument retained satisfactory psychometric quality despite its brevity (Sommers-Spijkerman et al., 2018). Similarly, Navarrete and colleagues examined the Spanish version of the FSCRS-SF and supported its psychometric properties and clinical usefulness, showing that the short form can be successfully adapted across linguistic and cultural contexts when its factor structure and validity evidence are carefully examined (Navarrete et al., 2021). The present findings extend this line of evidence to an Iranian student sample and suggest that the key distinction between self-critical and self-reassuring self-relating is also meaningful in Persian-speaking university populations. This is important because self-critical experiences may be expressed differently across cultures, but the underlying psychological contrast between self-attack and self-support appears to remain empirically identifiable.

The correlational findings provided additional support for the convergent and divergent validity of the scale. Self-criticism showed significant positive relationships with

depression, anxiety, stress, and self-critical rumination. This pattern is theoretically expected, as self-criticism is widely considered a transdiagnostic vulnerability factor that contributes to negative emotional states and psychological distress. The strong association between self-criticism and depression is consistent with previous literature showing that self-critical individuals are more vulnerable to depressive symptoms because they interpret failure and difficulty through harsh self-blame, inadequacy, and internalized condemnation (Shahar, 2015; Werner et al., 2019). The positive relationships of self-criticism with anxiety and stress are also consistent with findings from student samples indicating that self-critical tendencies are associated with higher stress and psychopathological symptoms (Kotera, Green, et al., 2021). In this regard, students who evaluate themselves through rigid standards and punitive internal dialogue may experience academic and interpersonal stressors as evidence of personal defectiveness, thereby intensifying anxiety, distress, and emotional dysregulation.

The significant positive association between self-criticism and self-critical rumination further confirms the construct validity of the Persian scale. Self-critical rumination refers to repetitive and persistent thinking about personal shortcomings, failures, and perceived inadequacies, and it can be understood as a cognitive mechanism through which self-critical content is maintained over time. Smart and colleagues introduced self-critical rumination as a specific form of repetitive negative thinking that is closely related to self-criticism but conceptually distinguishable from broader rumination (Smart et al., 2016). In the Iranian context, Shahian and colleagues validated the Persian Self-Critical Rumination Scale among students and confirmed its relevance for assessing repetitive self-critical thinking in this population (Shahian et al., 2024). The strong correlation observed in the present study suggests that students with higher self-criticism are also more likely to become mentally preoccupied with self-blame, perceived failures, and negative self-evaluations. This finding supports the interpretation that self-critical rumination may be one pathway through which self-criticism becomes persistent and emotionally harmful.

The present results also showed that self-criticism was negatively associated with self-compassion and self-reassurance. This finding is consistent with the conceptual distinction between punitive and compassionate self-relating. Self-compassion involves kindness toward oneself, recognition of common humanity, and mindful awareness of suffering without over-identification, and is therefore

expected to be inversely related to harsh self-judgment and self-attack (Raes et al., 2011). The negative relationship between self-criticism and self-compassion observed in this study is also consistent with the Iranian validation of the Self-Compassion Scale–Short Form, which supported the relevance of this construct in Iranian samples (Khanjani et al., 2016). From a theoretical perspective, self-compassion may reduce the emotional intensity of self-critical thoughts by allowing individuals to respond to shortcomings with acceptance rather than condemnation. This interpretation is consistent with evidence that self-compassion can moderate the psychological consequences of self-criticism in the association between adverse experiences and psychopathology (Lassri & Gewirtz-Meydan, 2022).

In contrast to self-criticism, self-reassurance showed significant negative relationships with depression, anxiety, stress, and self-critical rumination, and a significant positive relationship with self-compassion. These findings support the protective role of self-reassurance in emotional functioning. Self-reassurance reflects the ability to encourage, support, and soothe oneself in the face of difficulties, and this capacity may reduce vulnerability to negative emotional symptoms by weakening the dominance of self-attacking responses. The present findings are consistent with studies showing that self-reassurance is associated with better mental health among university students and may buffer the transition from stress to psychopathology (Kotera, Green, et al., 2021). They are also consistent with research among therapeutic students showing that adaptive attitudes toward the self and self-compassion are related to better mental health functioning (Kotera, Dosedlova, et al., 2021). Therefore, the positive association between self-reassurance and self-compassion in the present study suggests that these constructs share an affiliative and supportive emotional quality, although self-reassurance is specifically focused on the ability to respond to self-criticism and personal setbacks with encouragement.

The findings also align with intervention research showing that self-critical processes are clinically modifiable. Compassionate mind training was developed for individuals with high shame and self-criticism and aims to help individuals cultivate a compassionate, soothing, and supportive internal stance (Gilbert & Procter, 2006). Earlier pilot work on compassionate imagery also suggested that self-critical individuals can benefit from practices that activate compassionate representations and reduce hostile self-relating (Gilbert et al., 2004). More recent meta-analytic evidence has shown that compassion-focused therapy can

reduce self-criticism and enhance self-soothing (Vidal & Soldevilla, 2023), and self-compassion-related interventions have also been shown to reduce self-criticism across studies (Wakelin et al., 2022). These findings support the clinical relevance of measuring both self-criticism and self-reassurance. A valid Persian short form can therefore be useful not only for descriptive research but also for evaluating the effectiveness of interventions designed to reduce harsh self-evaluation and strengthen compassionate self-regulation. Iranian evidence showing that acceptance and commitment-based training can improve cognitive emotion regulation and reduce self-criticism among adolescents further supports the practical relevance of self-criticism assessment in local psychological intervention research (Abedi & Naseri, 2025).

The reliability findings of the present study also supported the internal consistency of the Persian scale. Cronbach's alpha and McDonald's omega coefficients for both self-criticism and self-reassurance were above the acceptable threshold, indicating that the items of each dimension coherently measured their corresponding construct. The Guttman lambda coefficients further supported the reliability of both components, with most values exceeding the acceptable level. These findings are consistent with the original short-form validation study, which reported satisfactory internal consistency for the self-criticism and self-reassurance dimensions (Sommers-Spijkerman et al., 2018). They are also aligned with the broader psychometric literature showing that self-critical and self-reassuring constructs can be reliably assessed through brief self-report instruments when items are theoretically coherent and culturally adapted. The reliability results are particularly important because brief instruments sometimes risk reduced internal consistency due to fewer items; however, the present findings suggest that the Persian short form retains adequate measurement precision while remaining efficient for research use.

The results of this study should also be interpreted in light of the broader literature on self-criticism as a multidimensional and clinically important construct. Previous work has distinguished comparative and internalized dimensions of self-criticism (Thompson & Zuroff, 2004), and more recent research has emphasized that self-criticism and self-compassion may vary across life domains rather than functioning only as global traits (Zuroff et al., 2021). The present two-factor structure does not capture all possible domains or forms of self-criticism, but it provides a concise assessment of the most central contrast

between self-attacking and self-reassuring responses. Moreover, the strong associations observed between self-criticism, depression, anxiety, stress, and self-critical rumination are consistent with evidence linking self-criticism to severe clinical outcomes, including suicide probability (O'Neill et al., 2021). This reinforces the importance of valid assessment, particularly in student populations where psychological distress may be underrecognized. Iranian studies have also shown that self-criticism is related to mental health, emotional regulation, attachment styles, shyness, and social appearance anxiety, suggesting that the construct has meaningful relevance in local student and young adult populations (Farrokhi, 2023; Yousefi Moridani et al., 2020). Taken together, the results indicate that the Persian short form of the Self-Criticism/Self-Reassurance Scale has acceptable psychometric properties and can contribute to future research on emotional vulnerability, self-regulation, and student mental health.

Despite its strengths, the present study had several limitations that should be considered when interpreting the findings. First, the sample consisted only of university students in Tehran, which may limit the generalizability of the results to students in other cities, non-student populations, clinical samples, adolescents, older adults, or individuals with different educational and socioeconomic backgrounds. Second, the study used a convenience sampling method, and therefore the sample may not fully represent the broader population of Iranian university students. Third, the data were collected using self-report instruments, which may be affected by response biases, social desirability, inaccurate self-perception, or temporary emotional states at the time of assessment. Fourth, the cross-sectional design did not allow examination of the temporal stability of the factor structure or the predictive validity of the scale over time. Finally, although several forms of validity and reliability were examined, additional psychometric evidence such as measurement invariance across gender, clinical status, and educational level was not assessed.

Future studies are recommended to examine the psychometric properties of the Persian short form of the Self-Criticism/Self-Reassurance Scale in more diverse samples, including students from different regions, clinical populations, adolescents, working adults, and community samples. Future research should also evaluate measurement invariance across gender, age groups, educational levels, and clinical versus nonclinical groups to determine whether the

scale measures the same constructs equivalently across subgroups. Longitudinal studies are needed to assess temporal stability, test-retest reliability, and the predictive validity of self-criticism and self-reassurance for later psychological distress, emotion regulation, academic functioning, and help-seeking behavior. It would also be valuable to examine the sensitivity of the scale to therapeutic change in intervention studies, particularly interventions based on compassion-focused therapy, acceptance and commitment therapy, mindfulness, and self-compassion training. In addition, future research could compare the short form with the full version of the scale to determine whether the brief form provides sufficient measurement accuracy in different research and clinical contexts.

The Persian short form of the Self-Criticism/Self-Reassurance Scale can be used by researchers, counselors, and mental health professionals as a brief screening and assessment tool in university settings. Because the instrument assesses both maladaptive self-critical tendencies and adaptive self-reassurance, it may help identify students who are vulnerable to negative emotional states, repetitive self-critical thinking, and difficulties in compassionate self-regulation. University counseling centers can use the scale as part of initial psychological assessment, prevention programs, and intervention planning for students experiencing stress, anxiety, depressive symptoms, or excessive self-blame. The scale may also be useful for evaluating changes after psychological interventions aimed at reducing self-criticism and strengthening self-supportive internal dialogue. In educational and preventive contexts, the findings highlight the importance of helping students recognize harsh self-critical patterns and develop more reassuring, accepting, and constructive ways of responding to personal mistakes, academic difficulties, and emotional distress.

### Authors' Contributions

All authors significantly contributed to this study.

### Declaration

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

### Transparency Statement

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

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The authors report no conflict of interest.

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### Ethical Considerations

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