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Türk Üniversite Öğrencileri Örnekleminde Öz-Şefkat Ölçeği Kısa Formunun Psikometrik Özellikleri

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ÖZ

Bu çalışmanın amacı Öz-Şefkat Ölçeği Kısa Formunun psikometrik özelliklerini Türk üniversite öğrencileri örnekleminde incelemektir. Araştırmanın katılımcılarını, Grup 1'deki 139, Grup 2'deki 200 Türk üniversite öğrencisi oluşturmuştur. Öz-Şefkat Ölçeği Kısa Formu Türkçe' ye çevrilmiştir; uzmanlar çeviri çalışmalarını inceleyerek çeviri geçerliliğini kontrol etmişlerdir. Yapı geçerliliğini incelemek için bir birinci düzey genel öz-anlayış faktörü ile altı ikinci düzey faktörü içeren model doğrulayıcı faktör analizi ile test edilmiş ve doğrulanmıştır. Yakınsak geçerliliği kontrol etmek için Öz-Şefkat Ölçeği Kısa Formunun puanları Bilinçli Farkındalık Ölçeği ve Pozitif ve Negatif Duygu Ölçeği puanları ile karşılaştırılmış ve anlamlı korelasyonlar elde edilmiştir. İç tutarlılığı ve test-tekrar-test güvenirliği kontrol etmek amacıyla güvenirlik analizleri yapılmıştır. Sonuç olarak, geçerli ve güvenilir bir ölçme aracı olan Öz-Şefkat Ölçeği Kısa Formunun, uzun versiyonuna alternatif olarak Türk üniversite öğrencilerinin öz-şefkat düzeylerini ölçmek için kullanılabileceği bulunmuştur.

Anahtar Kelimeler: Öz-şefkat, kısa form, psikometrik özellikler.

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Psychometric Properties of Self-Compassion Scale-Short Form in a Turkish University Student Sample

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ABSTRACT

The current study aims to examine the psychometric properties of the Self-Compassion Scale-Short Form (SCS-SF) in a Turkish university student sample. The study participants comprised 139 Turkish university students in Group 1 and 200 in Group 2. The SCS-SF was translated into Turkish; experts examined the translation studies to check the translation validity. To check the construct validity of SCS-SF, the higher-order model, including a single first-order self-compassion factor and six second-order factors, was tested and validated by confirmatory factor analysis. For convergent validity, the scores of SCS-SF were compared with the Mindful Attention Awareness Scale and the Positive and Negative Affect Schedule scores, and significant correlations were found. Reliability analyses were conducted to test internal and test-retest reliability. Thus, as a reliable and valid instrument, the SCS-SF can be used to measure the self-compassion level of Turkish university students as an alternative to the long version of the SCS.

Keywords: Self-compassion, short form, psychometric properties.

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1. INTRODUCTION

In the last 20 years, the interest in positive psychology has increased in science. The literature focused on various concepts that enhance physical and psychological well-being. Many of these concepts emerged from ancient Buddhist philosophy and have been integrated into educational programs and therapies to improve individuals' psychological functioning. Self-compassion is one of these constructs that implies individuals' compassionate attitudes toward themselves. It is described as "being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness" (Neff, 2003a, p. 87). If one has a self-compassionate attitude, they perceive their pain, inadequacies, and failures as a part of being human (Neff, 2003a). This non-judgmental viewpoint towards the self helps one to understand that one deserves to be loved and forgiven by themselves (Neff, 2003a, 2003b).

In Western psychology, compassion was recognized mostly towards others until Neff (2003a) conceptualized it concerning personal psychological functioning. She stated that self-compassion has three dimensions: self-kindness, common humanity, and mindfulness. These three dimensions have their opposites: Self-judgment, isolation, and over-identification. Self-kindness helps to understand oneself with kindness instead of being rough, critical, and judgmental. Common humanity helps to see one's negative experiences from a broader point of view: Failures are part of the common human experience. Mindfulness helps to unfold and be aware of negative thoughts and feelings to have a balanced view instead of merging with them. These three distinctive but connected aspects work together to give rise to a healthy, compassionate attitude toward self (Neff, 2003a).
Research shows that self-compassionate people are more resilient, forgiving, less ruminative, have an accepting and positive attitude toward adverse life events and their failures (Leary et al., 2007; Wu et al., 2019), regulate their emotions more effectively in relation to disorders such as eating disorder, body dissatisfaction or suicidal ideation (Fan et al., 2022; Turk & Waller, 2020), show better psychological functioning (Neely et al., 2009; Zessin et al., 2015) and favorable behavioral patterns in romantic relationships (Baker & McNulty, 2011; Neff & Beretvas, 2013; Yarnell & Neff, 2013). Recent studies show that self-compassion is also related to better physical health and behaviors that promote it, such as healthier sleeping, eating, and exercise habits (Phillips & Hine, 2021). On the other hand, it is negatively related to loneliness, fear of negative evaluation, and social anxiety (Liu et al., 2022). Different qualitative, experimental, and correlational studies demonstrate that self-compassionate young adults experience fewer negative emotions in daily life (Bicaker et al., 2022; Leary et al., 2007; Neff, 2003b).

Since studies on the effectiveness of self-compassion increase in different contexts day by day, various therapies and psychological interventions are developed to increase this skill. A few examples can be listed as Compassion-Focused Therapy (Gilbert, 2009), Mindful Self-Compassion Program (Neff & Germer, 2013), Mindfulness-Based Cognitive Therapy (Segal et al., 2002), and Acceptance and Commitment Therapy (Hayes et al., 2011). In a recent study, Wilson et al. (2019) found that self-compassion-focused therapies minimize anxiety and depression-related symptoms in individuals (see also Brown et al., 2019; MacBeth & Gumley, 2012).

Besides the increase in self-compassion practices, huge research interest has been growing after a measure was developed to measure self-compassion. Neff (2003b) initially developed a 26-item Self-Compassion Scale (SCS) utilized and recognized well in the literature to measure individuals' self-compassion levels. This scale measured self-compassion with 26 items. Six factors appeared: self-kindness (5 items) as opposed to self-judgment (5 items), common humanity (4 items) as opposed to isolation (4 items), and mindfulness (4 items) as opposed to over-identification (4 items).

Later, Raes et al. (2011) formed a 12-item short English and Dutch version using a sample of university students to promote the practicability of the instrument. A single first-order self-compassion factor and six second-order factors were confirmed for both the English and Dutch versions. They reported that unless researchers need detailed information regarding the subscales, the short form can also be used in a unidimensional form by employing the total score (Raes et al., 2011). SCS-SF was regarded as an economical substitute for the long version accompanying near-perfect correlations with the original scale. The long version of the SCS has been adapted into different languages and used widely since (Neff, 2023).
In the Turkish context, Akın et al. (2007) and Deniz et al. (2008) adapted the long version of SCS into Turkish culture. While Akın et al. (2007) confirmed the six-factor structure with 26 items, Deniz et al. (2008) revealed a single-factor structure with 24 items (two items were excluded because their item loadings were below .30). In Akın et al.'s (2007) study, internal reliability coefficients were found between .72 and - .80, and test-retest reliability coefficients were found between .56 and - .69. In Deniz et al.'s (2008) study, the internal reliability coefficient was found as .89. The test-retest reliability was found as .83. The psychometric properties of the Self-Compassion Scale Short Form (SCS-SF) were initially investigated by Yıldırım and Sarı (2018) with Turkish adolescents from middle school and high school. The demand for this short version has been increasing exponentially with research on adolescents (e.g., Topkaya et al., 2022; Yıldırım & Sarı, 2022) and young adults (e.g., Hatun & Türk Kurtça, 2022). However, in the Turkish context, the psychometric properties of this instrument have never been examined for university student samples or young adult samples, as Raes et al. (2011) essentially designed to do so. Neff et al. (2021) proposed a new instrument, the Self-Compassion Scale-Youth version (SCS-Y), for adolescents' use by adapting the item wording suitable for the particular age group because the conceptualization of the original scale was initially formed with undergraduate university students. Thus, examining SCS-SF with the initially intended age group is significant. In addition, since the probability of filling long multi-item scales by participants gradually decreases, researchers need to find and use shorter versions of the scales. Therefore, this study aims to fill this gap in the body of literature by adapting SCS-SF into Turkish culture and examining its psychometric properties with a sample of university students.

2. METHODOLOGY

2.1. Participants

In the current study, two different groups of participants were recruited by using a convenience sampling method. In Group 1, there were 139 university student participants. Ninety-six of them were female (69.1%), 41 were male (29.5%), and two were non-binary (1.4%). Out of 139 students, 126 (90.6%) were undergraduates, and 13 (9.4%) were graduate students. The ages of the participants ranged from 19 to 32, with a mean of 22.54 (*SD* = 2.28). The students in Group 1 were sent the SCS-SF again three weeks after the first application of SCS-SF. Of 139 students, 55 (6 male, 47 female, 2 non-binary; M_{age} =23.84, SD_{age} = 1.54) completed the scales. Group 2 included 200 university students. A hundred and thirty-four of them were female (67%), 61 were male (30.5%), and five were non-binary (2.5%). Of 200 students, 167 (83.5%) were undergraduates, and 33 (16.5%) were graduate students. The ages of the Group 2 participants ranged from 19 to 49, with a mean of 24.37 (*SD* = 4.24).

2.2. Instruments

The Self-Compassion Scale-Short Form (SCS-SF) (Raes et al., 2011) is a shortened version of the Self-Compassion Scale developed by Neff (2003b). The Self-Compassion Scale is a self-report measure, which includes 12 items and six factors: self-kindness (items 2, 6), self-judgment (items 11, 12), common humanity (items 5, 10), isolation (items 4, 8), mindfulness (item 3, 7), and over-identification (items 3, 9). Items are in the form of statements (i.e., When I am going through a very hard time, I give myself the caring and tenderness I need) and rated on a 5-point scale: Almost never (1), occasionally (2), about half of the time (3), fairly often (4), and almost always (5). There are six reverse items (1, 4, 8, 9,11, 12). The scale's total score can range from 12 to 60. Higher scores indicate

higher levels of self-compassion. Raes et al. (2011) measured the internal reliability of the scale by using Cronbach's alpha coefficient and reported it as .86 for the total scale score. They also reported Cronbach's alpha coefficients for self-kindness, self-judgment, common humanity, isolation, mindfulness, and overidentification factors as .54, .63, .62, .68, .69, .75, and .86, respectively.

The Mindful Attention Awareness Scale (MAAS) was developed by Brown and Ryan (2003) to measure the levels of dispositional mindfulness. Özyeşil et al. (2011) adapted the unidimensional 15-item MAAS to Turkish culture. Items are in the form of statements (i.e., I rush through activities without being really attentive to them) and rated on a 6-point scale: Almost always (1), very frequently (2), somewhat frequently (3), somewhat infrequently (4), very infrequently (5), and almost never (6). There is not any reverse item. The total score of MAAS ranges from 15 to 90. Higher scores indicate higher dispositional mindfulness. Brown and Ryan (2003) reported Cronbach's alpha for the original version as .82 with a student sample. Özyeşil et al. (2011) found the same Cronbach's alpha value for the Turkish version.

The Positive and Negative Affect Schedule (PANAS) was developed by Watson et al. (1988) and adapted into Turkish culture by Gençöz (2000) to measure positive and negative affect. PANAS is a two-factor self-report measure. It contains a total of 20 items, ten (1, 3, 5, 9, 10, 12, 14, 16, 17, and 19) in the positive affect (PA)factor and ten (2, 4, 6, 7, 8, 11, 13, 15, 18, and 20) in the negative affect (NA) factor. Items are rated on a 5-point scale: Very slightly or not at all (1), a little (2), moderately (3), quite a bit (4), extremely (5). Strong, proud, and inspired are examples of positive affect items; distress, ashamed, and scared are examples of negative affect items. The total score of the positive and negative affect subscales can range from 10 to 50. Higher scores indicate higher levels of positive and negative affect. Watson et al. (1988) checked internal consistency reliabilities with alpha coefficient several times, and they found that it ranged from .86 to .90 for PA and .84 to .87 for NA. Gençöz (2000) reported Cronbach's alpha coefficient for the Turkish version as .87 for PA and .83 for NA.

2.3. Procedure

2.3.1. *Translation of the SCS-SF*

After obtaining approval from the Human Subjects Ethics Committee of the university, the Turkish translation studies of the scale were started. Three academicians in the psychological counseling field with advanced English language proficiency translated the English version of SCS-SF to Turkish. The research team discussed all translations and determined the most appropriate translation for each item. Afterward, a form was developed for the experts to evaluate the item translations and examine the translation validity. In this form, all three raw translations and the confirmed one by the research team were shared with experts, and experts were asked to evaluate the selected translation of the title, rating scale, and each item on a scale ranging from one to five. The accompanying 5-point scale was 1 = Turkish translation does not match the English expression at all., 2 = The Turkish translation has significant shortcomings in meeting the English expression., 3 = Turkish translation partially matches the English expression., 4 = Turkish translation broadly matches the English expression., and 5 = Turkish translation fully corresponds to the English expression. Experts were also expected to write additional comments and suggestions when their ratings differed from 5. Three experts with Ph.D. degrees in the psychological counseling field from universities where the medium of instruction is English examined the appropriateness of the translation, and there was a consensus on the translation of the title and rating scale. Their evaluations were mainly in line with the research team, and they wrote comments for a few items rated as 4. These items were corrected, and the Turkish translation was completed.

2.3.2. *Administration of data collection instruments*

Data were collected using the university's online survey platform. The survey link was sent to the students with the help of the academicians. The survey link firstly directed the students to the informed consent form in which they are informed about the details of the study (i.e., they will receive the same link after three weeks) and primary research principles (i.e., confidentiality, right to quit). When students confirmed participation, they were directed to the data collection instrument, which took approximately five minutes to complete. The SCS-SF was administered to the Group 1 participant twice at a three-week time interval. The survey link, including the informed consent form, demographic information form, SCS-SF, MAAS, and PANAS, was sent to a different group using the same online platform. Students fill out the survey in approximately fifteen minutes.

2.4. Data Analysis

Before the primary analysis, the data set was checked by screening minimum and maximum values and frequencies. Descriptive statistics were calculated. Group 1's data were used to examine the internal and test-retest reliability of SCS-SF. Cronbach's alphas were calculated twice with a 3-week time interval. Then, the Pearson correlation coefficient was calculated to check test-retest reliability. Group 2's data were used to check the factor structure of SCS-SF, convergent validity of SCS-SF, and internal reliability of the SCS-SF. Confirmatory factor analysis (CFA) was conducted to ensure the factor structure. To test concurrent validity, the Pearson correlation coefficients were calculated between the SCS-SF and MAAS scores and the SCS-S and PANAS scores. To test the reliability of the SCS-SF, Cronbach's alphas and McDonald's omega were calculated.

3. FINDINGS

3.1. Construct Validity of SCS-SF

Raes et al. (2011) shortened the SCS and revealed a higher-order model with a single first-order 'general' self-compassion factor and six second-order factors for SCS-SF. Therefore, CFA was conducted to test Raes et al.'s (2011) model. The goodness-of-fit index (GFI) values above .90 (Schumacker & Lomax, 1996) and the comparative fit index (CFI) above .90 (Hu & Bentler, 1999) indicate an acceptable fit. For the root mean square error of approximation (RMSEA), less than .05 indicates a good fit, a value of .08 indicates a reasonable fit, and a value higher than .10 indicates a poor fit (Byrne, 2001). The parsimony goodness of fit index (PGFI) values above .70 and the parsimony-adjusted measures index (PNFI) values above .80 show a good relationship between fit and parsimony; moreover, PGFI values above .50 and PNFI values above .60 show an acceptable relation (Brown, 2006).

The results of the single high-order factor structure showed an adequate model fit [($x^2(48) = 117.778$, $p < .05$, $x^2/df = 2.45$, CFI = .94, TLI = .91, RMSEA = .085, pClose < .05, SRMR=.05]. Moreover, the model showed an acceptable relationship between fit and parsimony (PGFI= .56, PNFI= .65). The factor loadings of items ranged between .54 to .90; moreover, the factor loading of the six factors ranged between .74 to .95, as shown in Figure 1. Therefore, the higher-order model had an adequate fit.

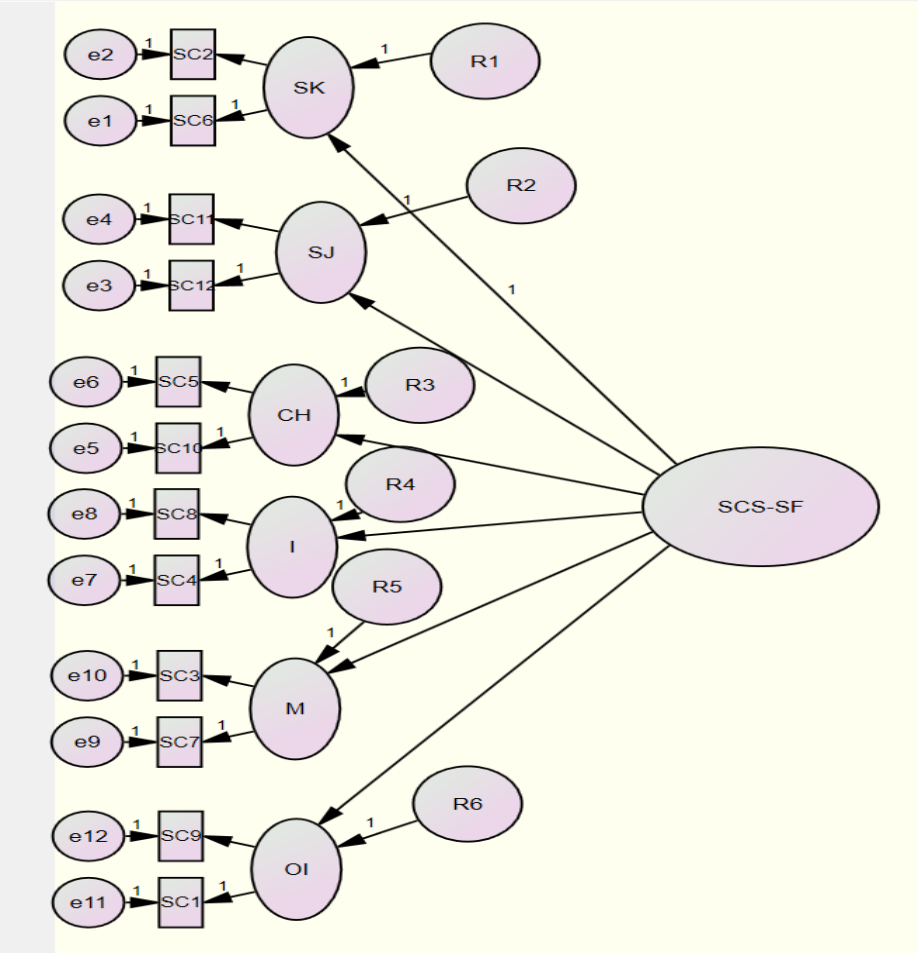

Figure 1. Confirmatory Factor Analysis of the Higher-Order Model of SCS-SF

Note: SK = Self-Kindness; SJ = Self-Judgement; CH = Common Humanity; I = Isolation; M =Mindfulness; OI = Over-Identification, SCS-SF = Self-Compassion Scale-Short Form

3.2. Convergent Validity of SCS-SF

The scores of SCS-SF were compared with MAAS and PANAS for convergent validity. The Pearson correlation coefficient between SCS-SF and MAAS was found as $r = .50$ ($p < .01$), MAAS and self-kindness subscale was found $r = .33$ ($p < .01$), self-judgment subscale was found $r = .43$ ($p < .01$), common humanity subscale was found $r = .30$ ($p < .01$), isolation subscale was found $r = .46$ ($p < .01$), mindfulness subscale was found $r = .26$ ($p < .01$) and over-identification subscale was found $r = .38$ ($p < .01$). Moreover, between SCS-SF and PANAS positive was found as $r = .43$ ($p < .01$), SCS-SF and PANAS negative was found $r = -.52$ ($p < .01$). Pearson correlation coefficient between PANAS positive and self-kindness subscale was $r = .42$ ($p < .01$), self-judgment subscale was $r = -.33$ ($p < .01$), common humanity subscale was $r = .28$ ($p < .01$), isolation subscale was $r = -.34$ ($p < .01$), mindfulness subscale was $r = .34$ ($p < .01$) and over-identification subscale was $r = -.32$ ($p < .01$). Pearson correlation coefficient between PANAS negative and self-kindness subscale was $r = -.39$ ($p < .01$), self-judgment subscale was $r = .51$ ($p < .01$), common humanity subscale was $r = -.31$ ($p < .01$), isolation subscale was $r = .38$ ($p < .01$), mindfulness subscale was $r = -.33$ ($p < .01$) and over-identification subscale was $r = .51$ ($p < .01$). Only two correlations were below .30, except them all the other correlations were above. 30, according to Green et al. (2000), correlation coefficients of .10 show small, .30 show medium, and .50 show large effect size; therefore, in the present study, SCS-SF and SCS-SF subscales and MAAS and PANAS had significant correlation.

3.3. Internal Reliability of SCS-SF

To test the internal reliability of SCS-SF, Cronbach's alphas were calculated by using both groups' data. According to (Nunnaly, 1978), a reliability coefficient of .70 or higher is acceptable. Table 1 summarizes Cronbach's alpha values, means, and standard deviations of the subscale and total scores of *SCS-SF* in both groups. Moreover, Macdonald's omega was found to be .87 for the total SCS-SF score in Group 1 (*N* = 139), and it was found to be .90 in Group 2 (*N* = 200).

Table 1
Cronbach's Alphas, Means, and SDs for the Subscale and Total Scores of SCS-SF.

	α		***M***		***SD***	
	Group 1	Group2	Group 1	Group 2	Group 1	Group 2
Self-Kindness	.75	.71	3.03	3.04	1.03	0.96
Self-Judgment	.84	.84	3.17	2.99	1.11	1.16
Common Humanity	.56	.65	3.01	3.09	0.95	0.92
Isolation	.50	.57	2.90	2.59	1.07	1.02
Mindfulness	.80	.75	3.36	3.28	1.03	0.95
Over-Identification	.62	.69	2.91	2.76	1.09	1.09
Total SCS-SF score	.86	.90	3.07	2.96	0.76	0.80

3.4. Test-Retest Reliability of SCS-SF

To collect the test-retest reliability data, the scale was administered to Group 1's participants twice at three weeks intervals, and 55 participants filled out the SCS-SF again. Pearson correlation coefficient between the first and second times was calculated as $r = .88$ ($p < .01$). Test re-test reliability coefficients of six subscales were: self-kindness $r = .55$ ($p < .01$), self-judgment $r = .78$ ($p < .01$), common humanity $r = .67$ ($p < .01$), isolation $r = .75$ ($p < .01$), mindfulness $r = .67$ ($p < .01$), and over-identification $r = .68$ ($p < .01$). According to Green et al. (2000), these are strong correlations.

4. RESULTS, DISCUSSION, AND RECOMMENDATIONS

This study aimed to adapt SCS-SF into Turkish culture and examine its psychometric properties in a university student sample. Since Neff (2003a, 2003b) developed the concept of self-compassion, both practitioners and researchers have shown great interest in it (see Ferrari et al., 2019; Marsh et al., 2018; Zessin et al., 2015). The SCS has been used frequently worldwide and has many translations (Neff, 2023). With practicability concerns, an increasing number of researchers want to use brief scales that include fewer items for various reasons. They might want to have more variables in their hypothesized model and reach out to a vast number of participants with a high return rate to decrease participants' fatigue. So, for self-compassion research, it is essential to have a shortened version of SCS. For the first time, Raes et al. (2011) shortened the SCS and created both Dutch and English versions by using university student samples, as in Neff's original study (2003b). In Turkey, Yıldırım and Sarı (2018) translated the English version into Turkish and tested reliability and validity in an adolescent sample, and found a different factorial structure. There was a need to test the psychometric properties of SCS-SF in a young adulthood sample because, in Turkey, university student samples are the most common and reachable ones for collecting data in research.

To begin with, the SCS-SF was translated into Turkish. Experts reviewed the translation and content and approved the title, rating scale, and majority of the items. A few items were revised by considering their comments, and

the translation process was finalized. Before checking construct validity, the previous factorial structures were examined for long and short SCS versions.

The long version of the SCS has been adapted into Brazilian Portuguese, Chinese, Czech, French, German, Greek, Hungarian, Indonesian, Italian, Japanese, Korean, Norwegian, Persian, Portuguese, Slovak, Slovenian, Spanish, and Turkish languages (Neff, 2023). As shown on Neff's self-compassion web page, all the adaptations, except the Turkish SCS, Greek SCS, and Korean SCS, have six subscales with similar item loadings as the original. The Greek SCS shows a different factor structure than the original (Mantzios et al., 2013). The Korean SCS has a six-factor structure with 23 items (Chae, 2022). The adaptations of SCS to the Turkish culture were made by Akın et al. (2007) and Deniz et al. (2008). Akın et al. (2007) confirmed the six-factor structure with 26 items; however, Deniz et al. (2008) got a single-factor structure with 24 items. The eliminated items were checked and found to differ in different countries. These differences in the factor structures and items could be related to cultural differences because cultural differences may impact the results (Behling & Law, 2000). Dialecticism is a cultural factor that could provide insight into the self-compassion construct structure's cross-cultural issues (Peng & Nisbett, 1999). Dialecticism describes the way people comprehend opposing ideas and form a comprehensive point of view from them. Western societies separate the polarized contradicting ideas in an endeavor to be more positioned at one of the extremes, but Eastern cultures seem to keep fundamental components of opposing perspectives by seeking something form to a middle way (Peng & Nisbett, 1999). The SCS scale's items have opposite poles; this could be the reason for its different construct structures in different cultures.

The SCS-SF was formed by Raes et al. (2011). The short form has English and Dutch versions and is a practical and economical alternative to the SCS. A single first-order 'general' self-compassion factor and six second-order factors for SCS-SF were confirmed by Raes et al. (2011) for the short form. The studies show that there are other adaptions. The SCS-SF was adapted to Brazilian culture by Rocha et al. (2022). They found that the six correlated factors, bifactor structure, and two correlated factors with a good fit, but the higher-order factor structure and one-factor structure did not show a good fit. Uršič et al. (2019) adapted the SCS-SF to the Slovenian culture. According to the results, the higher-order model did not show a good fit; however, six correlated factors show a good fit. Yıldırım and Sarı (2018) adapted the SCS-SF to Turkish culture with adolescents from middle school and high school. They find two correlated factors with a good fit. However, their sample was adolescents, which differs from the current study's sample, including young adults. The current research and Raes et al. (2011) show a good fit for higher-order structure. The subscales of the SCS-SF have lower reliability, similar to Raes et al.' (2011) study; however, the total score reliability was high. In the current study, a higher-order structure was supported, and total score reliability was high; therefore, the total score is useful due to its high reliability and confirmation of the higher-order structure in Turkish culture.

The correlations between SCS-SF, MAAS, and PANAS were calculated to check convergent validity. Although significant correlations were found, they were not high. The lack of high correlations might be associated with the timing of data collection. The data were collected from university students during a time when they were forced to online education due to the pandemic. Withdrawal from face-to-face education, the losses, difficulties, and stress brought on by the pandemic might have reduced students' positive emotional experiences while also disrupting their mechanisms of using self-compassion. Similarly, instead of being mindful, they might prefer to engage in activities that distract their attention to other things rather than the adversities of the pandemic. Another possible explanation for the lack of high correlations might be related to the characteristics of the sample. Generally, the Turkish education system focuses on the results obtained from the exams rather than learning in the process. For example, the success of high school students is reduced by the scores they get on the university entrance exam. For this reason, others' evaluations are more significant, and they might use self-judgment and self-criticism to correct their mistakes and fulfill others' expectations rather than being self-compassionate. In addition, in a highly demanding era, they are expected to complete their task as fast as possible, and they might not have enough room and time to practice mindfulness.

Regarding internal reliability, in both studies, Cronbach's alpha values of self-kindness, self-judgment, mindfulness, and whole scale were higher than .70. However, the internal reliability coefficients for common humanity, isolation, and over-identification were lower than .70. In Raes et al.'s (2011) study, Cronbach's alpha values of over-identification and whole scale were higher than .70. Still, Cronbach's alpha values of other subscales were lower than .70. According to Nunnally, (1978), some of the reliability scores were lower than the required threshold, these results should be evaluated carefully. Nevertheless, the Turkish version has higher

reliability estimates than the original English version (see Raes et al., 2011). Furthermore, SCS-SF has high test-retest reliability for both subscales and the whole scale.

To conclude, by considering different psychometric properties, the Turkish SCS-SF is a reliable and valid measure. It can be used as a practical alternative to the longer version of SCS. To our knowledge, only Yıldırım and Sarı (2018) examined the psychometric properties of SCS-SF in an adolescent sample, including middle school and high school students, and the current study is the first one that examined psychometric properties in a Turkish university student sample. So, replication of this study was highly recommended to validate the scale in the Turkish university student sample and other young adult samples. Another recommendation is to increase the sample size to examine the factor structure and reliability estimates better.

Research and Publication Ethics Statement

The author(s) confirmed that the study was conducted in accordance with Helsinki Declaration as revised in 2013 and was approved by METU Human Subjects Ethics Committee with a protocol number of 339-ODTU-2020

Contribution Rates of Authors to the Article

Funda Barutçu-Yıldırım and Selin Onaylı equally contributed to designing the study. Nureda Taşkesen and Funda Barutçu-Yıldırım collected the data. Selin Onaylı conducted the analysis. All authors contributed equally to writing the manuscript.

Statement of Interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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