

# Evaluating the Multifactor Structure of the Long and Short Versions of the Self-Compassion Scale in a Clinical Sample

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**Objective:** There has been a growing interest in the concept of self-compassion in Eastern psychology. The aim of the present study was to explore the dimensionality of the widely used Self-Compassion Scale (SCS; long and short versions) in both clinical and nonclinical samples. **Method:** Several confirmatory factor analyses (CFAs) were computed in a mixed clinical ( $n = 316$ ) and a nonclinical sample ( $n = 1128$ ) from the Portuguese population. Also, differences were tested between the groups in the SCS 6 factors. **Results:** The CFA supported both a 6-factor model and a hierarchical model in both samples. The SCS also showed good psychometric properties, with good internal consistency, test-retest reliability, and convergent validity. Our study further suggests that individuals with several psychopathological disorders showed significantly lower self-compassionate abilities. **Conclusions:** The SCS (long and short versions) is thus a reliable instrument to assess self-compassion and is useful for research and, in particular, clinical practice. © 2015 Wiley Periodicals, Inc. *J. Clin. Psychol.* 00:1–15, 2015.

Keywords: Self-Compassion Scale; confirmatory factor analysis; clinical sample; psychometric properties

In recent years, there has been a growing interest in the concept of self-compassion and its effect on psychological well-being (e.g., Gilbert, 2010; Neff, 2003a). The concept of self-compassion, however, is not new in Eastern traditions, such as Buddhism, in which it is considered as equally important as compassion for others. In a broad sense, compassion involves being moved by and desiring to alleviate others' distress (Neff, 2003a,b). Self-compassion entails the same features but it is directed inward, with feelings of care and kindness toward oneself in the face of personal suffering.

Drawing on several Buddhist readings (e.g., Bennett-Goleman, 2001; Brach, 2003; Goldstein & Kornfield, 1987; Salzberg, 1997), Neff (2003a,b) has proposed a definition of self-compassion based on three main components: self-kindness, common humanity, and mindfulness. Self-kindness refers to the ability to be caring and understanding to oneself when facing suffering, inadequacy, or failure and is opposed to self-judgment. Common humanity involves recognizing that all humans are imperfect, make mistakes, and encounter life difficulties, which promotes feelings of connectedness when experiencing suffering rather than feeling isolated and cut off from others.

The mindfulness component entails a balanced approach to one's negative experiences so that one neither suppresses nor exaggerates painful feelings or disliked aspects of oneself, allowing for the right amount of distance from one's emotions so that they are fully experienced and approached with awareness and mindful objectivity. This process is opposed to overidentification, in which the individual feels overwhelmed and is carried away by its subjective negative emotional reactions and thoughts. The positive and negative aspects are seen as two opposite poles of the same dimension (e.g., self-kindness vs. self-judgment) but are not mutually exclusive (Neff, 2003a). Thus, for example, even if one is not particularly self-critical in times of failure, that doesn't mean one takes action toward being self-soothing and self-accepting.

Not much has been written regarding the relations between the components, and whether one can be self-compassionate without having all three components. Neff (2003a) offers the most

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comprehensive discussion on this topic. According to the author, compassion (whether directed toward the self or others) seems to necessarily entail all three components. Also, although these aspects of self-compassion are conceptually distinct, and are experienced differently at the phenomenological level, they also interact so as to mutually enhance and engender one another. For example, self-kindness may foster common humanity and mindfulness, in the sense that if a person is caring and understanding toward themselves, then the negative effect of the emotional experience will be lower, making it easier to hold painful thoughts and emotions in mindful awareness.

Also, as opposed to withdrawing and believing that they struggle alone with failures and flaws, self-kind people are more likely to stay in contact with others and share their struggle, as they may feel less ashamed of their faults. Simultaneously, one can hypothesize that common humanity may foster self-kindness and mindfulness. People who feel connected to others may judge themselves less harshly for their flaws and failures as they recognize that being imperfect is part of being human. They may also understand that they should treat themselves with the empathy and kindness they normally extend to others in the face of suffering. Realizing that suffering and personal failure happens to all people helps put one's experience into perspective, enhancing the ability to be mindful of one's thoughts and emotions and not overidentify with or avoid them.

Self-compassion is thought to be different from self-pity in the sense that those who pity themselves tend to lose a sense of common humanity and to overidentify with the experience. In the same vein, the common humanity component of self-compassion separates it from self-centeredness, because it fosters social connection rather than isolation and self-absorption (Neff, 2003a,b). Neff (2003a) found that self-compassion was significantly correlated with social connectedness and that more self-compassionate individuals rated themselves as being equally kind to self and others. Self-compassion is also different from self-esteem, a distinction that has been empirically validated (Leary, Tate, Adams, Allen, & Hancock, 2007; Neff & Vonk, 2009). Although low self-esteem is linked to several negative psychological outcomes, several authors argue that an overemphasis on evaluating and liking the self may lead to self-centeredness, self-absorption, self-enhancement, narcissism, and lack of concern for others (Chang, 2008; Damon, 1995; Seligman, 1995).

Standing from a different perspective, based on evolutionary psychology, neurobiology, and attachment theory, Gilbert (1989, 2005) suggests that the experience of self-compassion activates in the individual the same neurophysiological mechanisms that are activated when the individual is the recipient of compassion from others. According to the author, compassion for self and others taps into an evolved mammalian physiological system (linked to secure attachment and the oxytocin–opiate system) that, when activated via external signals (other people's behaviour) or internal signals (self-directed emotions and thoughts) of caring and kindness, contributes to feelings of connectedness, contentment, and soothing. According to Gilbert (2010), compassion involves several emotional, cognitive, and motivational elements, including care for the welfare of others, sympathy, distress tolerance, empathy, nonjudgment, distress sensitivity, and the ability to create opportunities for growth and change with warmth.

Recent research has highlighted the associations between self-compassion and psychological well-being in a variety of domains, such as affect, cognitive patterns, and social connections. Although these studies are correlational in nature and rely on self-report measures they may provide initial evidence that interventions that increase self-compassion may contribute to positive changes in these domains. Specifically, several studies have suggested that low self-compassion is associated with greater negative affect and less positive affect in the face of real, imagined, and remembered events (Leary et al., 2007; Neff, Kirkpatrick, & Rude, 2007; Neff & Vonk, 2009).

In addition, greater self-compassion has been robustly linked to less anxiety and depression, even when controlling for the effects of self-criticism and negative affect (Neff, Kirkpatrick, et al., 2007; Mills, Gilbert, Bellew, McEwan, & Gale, 2007; Ying, 2009). However, it is not clear if these associations would be different in individuals with clinical levels of depression and anxiety. Self-compassion has also been found to be negatively associated with rumination, thought suppression, and avoidance strategies (Neff & Vonk, 2009; Raes, 2010; Neff, Kirkpatrick, et al., 2007; Neff, 2003a; Neff, Hseih, & Dejithirath, 2005). In a recent meta-analysis with 14 studies,

a large effect size for the association between self-compassion and psychopathology was found, thus supporting the idea that self-compassion is an important variable in understanding mental health and resilience (MacBeth & Gumbley, 2012)

Besides its buffering effects, self-compassion also seems to promote positive states. Research shows that self-compassion has been associated not only with social connectedness and life satisfaction (Neff, 2003a; Neff, Pisitsungkagarn, & Hsieh, 2008) but also with autonomy, competence, and relatedness (Neff, 2003a). Indeed, self-compassionate individuals seem to have more happiness, optimism, and curiosity (Neff, Rude, & Kirkpatrick, 2007). Self-compassion has also been associated with adaptive emotional regulation, evidenced by findings that self-compassionate individuals show more emotional intelligence and emotional coping skills (Neff, 2003a; Neff, Rude, et al., 2007). Experimental studies using self-compassion inductions (e.g., Adams & Leary, 2007; Leary et al., 2007) confirm the findings of these cross-sectional studies and suggest that self-compassion can indeed be enhanced and can contribute to well-being and less psychological distress.

There is evidence that several psychological interventions may enhance self-compassion. For example, the compassionate-focused therapy (CFT) stands on the idea that the cultivation of compassion is central to adaptive emotional regulation, especially when dealing with patients who struggle with feelings of shame and who exhibit self-critical cognitions. Patients are trained in several skills (e.g., compassionate guided imagery) aimed at cultivating a sense of kindness, warmth, and tolerance for self and others. Although research on CFT is still in its early stages, studies have been published reporting its positive effects across different clinical populations (Braehler et al., 2013; Gale, Gilbert, Read, & Goss, 2012; Gilbert & Procter, 2006; Lucre & Corten, 2013; Mayhew & Gilbert, 2008).

Recently, Neff and Germer (2013) developed a program specifically to enhance self-compassion called Mindful Self-Compassion (MSC). Results from a pilot study and a randomized control trial indicate that the intervention increased self-compassion, mindfulness, and well-being, with gains maintained at both 6-month and 1-year follow-up. In a study by Smeets, Neff, Alberts, and Peters (2014), a brief self-compassion group intervention, compared with a control condition, was effective in reducing rumination and in improving self-compassion, mindfulness, optimism, and self-efficacy in a group of female students. Another study found that a 3-week period of self-compassion mediation training, compared with a control condition, led to not only reductions in body dissatisfaction, body shame, and contingent self-worth based on appearance but also higher levels of self-compassion and body appreciation, and these effects were maintained for 3 months (Albertson, Neff, & Dill-Shackleford, 2014). Therapeutic approaches based on mindfulness have also been shown to be an effective way to develop self-compassion (e.g., Abercrombie, Zamora, & Korn, 2007; Birnie, Speca, & Carlson, 2010; Shapiro, Astin, Bishop, & Cordova, 2005; Shapiro, Brown, & Biegel, 2007; Tirsch, 2010).

To date, most of the research on self-compassion has been conducted using the Self-Compassion Scale (SCS; Neff, 2003a). The confirmatory factor analysis (CFA) showed six factors (kindness, common humanity, mindfulness, judgment, isolation, and overidentification) and a single higher-order self-compassion factor explaining the intracorrelations between the six factors. The SCS has good construct validity. The Greek (Mantzios, Wilson, & Giannou, 2013), Chinese (Chen, Yan, & Zhou, 2011), and Turkish (Deniz, Kesici, & Sumer, 2008) versions of the SCS replicated the original six-factor structure in samples of university students. However, in a recent study (Williams, Dalgleish, Karl, & Kuyken, 2014), the six-factor structure didn't achieve the criteria for an acceptable fit in three different samples (a convenience sample, a sample that practices meditation, and a sample of patients with recurrent depression).

Although this scale has proved to be a sound and reliable instrument for the assessment of self-compassion and has been used in the majority of research in this field, it should be noted that it was developed in a sample of undergraduate students, and, to our knowledge, there is only one study to date that explored its factor structure and reliability in a clinical sample (recurrent depression; Williams et al., 2014). Recently, Raes and colleagues developed a 12-item short version of the SCS, and CFA supported the same six-factor structure and single higher-order factor of self-compassion as found in the long form (Raes, Pommier, Neff, & Van Gucht, 2011).

This study sets out to explore the dimensionality of the self-compassion construct. Specifically, we aim to test the factorial structure of the long and short forms of the SCS in both clinical and nonclinical samples from the Portuguese population. It should be noted that Castilho and Pinto-Gouveia (2011) conducted a study of 669 university students and found that the Portuguese version of the SCS shows good internal consistency (between .75 and .90), test-retest reliability ( $r = .78$ ), and convergent validity with other related measures, although the factorial structure of the scale was not tested.

## Method

### *Participants and Procedure*

A total of 1,444 participants from both general and clinical population participated in the study. The nonclinical sample ( $n = 1,128$ ) comprised students recruited between 2007 and 2008 from the University of Coimbra and the University of Aveiro who were enrolled in several courses ( $n = 928$ ) and a community group recruited in the North and Centre regions of Portugal, using nonrandom methods (convenience sample;  $n = 200$ ). Students were informed of the study by announcements made at the end of lectures, with previous knowledge and authorization of the professor in charge, and participants from the community sample were recruited in several institutions.

The nonclinical sample had a mean age of 24.50 (standard deviation [ $SD$ ] = 8.03) and 14.20 ( $SD = 4.59$ ) years of education; a majority of participants were students (68%), female (75%), and single (84%). Participants from the clinical group ( $n = 316$ ) were recruited from the outpatient psychiatric services of different public hospitals in Portugal's North and Centre regions and were referred by the psychologists and psychiatrists in charge. The clinical sample had a mean age of 28.69 ( $SD = 8.74$ ) and 13.95 ( $SD = 3.38$ ) years of education; students (40%) composed the majority of the sample, and the remainder of the sample were from the medium socioeconomic level (24%), female (80%), and single (72%).

A trained therapist clinically assessed all participants using the following diagnostic structured interviews: Structured Clinical Interview for DSM-IV Axis I Disorders (SCID I; First, Spitzer, Gibbon, & Williams, 1997); Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV; DiNardo, Brown, & Barlow, 1994); Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II; First, Gibbon, Spitzer, Williams, & Benjamin, 1997); and Borderline Personality Disorder Severity Index (BPDSI-IV; Arntz et al., 2003). Data were collected between 2007 and 2010 and a total of 316 patients with Axis I and II disorders participated in the study. An institutional board approved the study.

The participants read the study aims, the importance of participation, and confidentiality described on a page before the questionnaires, which also contained several sociodemographic questions. In line with the ethical requirements, it was emphasized that participants' cooperation was voluntary, and that their answers were confidential and would be used only for the purpose of this study. Then the participants completed the self-report questionnaires in the presence of the researcher, which took, on average, 40 minutes in the nonclinical sample. All participants provided their written informed consent.

### *Measures*

*SCS-Long Form (SCS-LF; Neff, 2003b; Portuguese version/preliminary studies by Castilho & Pinto-Gouveia, 2011).* The SCS-LF is a 26-item self-report questionnaire that measures six components of self-compassion: self-kindness (five items, e.g., "I try to be understanding and patient toward those aspects of my personality I don't like"); self-judgment (five items, e.g., "I'm disapproving and judgmental about my own flaws and inadequacies"); common humanity (four items, e.g., "I try to see my failings as part of the human condition"); isolation (four items, e.g., "When I think about my inadequacies it tends to make me feel more separate and cut off from the rest of the world"); mindfulness (four items, e.g., "When something

painful happens I try to take a balanced view of the situation”); and overidentification (four items, e.g., “When I’m feeling down I tend to obsess and fixate on everything that’s wrong”).

Mean scores on the six subscales can be averaged (after reverse-coding negative items) to create an overall self-compassion score. Items are rated on a 5-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*). Research indicates that the SCS-LF demonstrates concurrent validity, convergent validity, discriminate validity, test-retest reliability, and good internal consistency ( $\alpha = .92$ ; Neff, 2003a).

A specialist in the area of study independently translated the original version of the SCS to Portuguese, using high-quality English and Portuguese. A different bilingual translator conducted retroversion of the items, and translated and back-translated versions of the SCS were compared. Castilho and Pinto-Gouveia (2011) reported that there was semantic equivalence between the two versions, and no significant differences were discovered upon the back translation. In the present study, Cronbach’s alphas for the total scale in the clinical and nonclinical samples were .92 and .94, respectively, and ranged between .70 and .88 for the subscales.

*SCS-Short Form (SCS-SF; Raes et al., 2011)*. The SCS-SF comprises 12 items measuring the following six components of self-compassion (two items each): self-kindness, self-judgment, common humanity, isolation, mindfulness, and overidentification. Raes et al. (2011) selected the pairs of subscale items that showed high intercorrelations to maximize subscale reliability; however, in some cases, they selected the items for each subscale that reflected the breadth of the original subscale content. In the present study, Cronbach’s alphas for the total scale in the clinical and nonclinical samples were .86 and .89, respectively, which are values similar to the those found in the original study ( $\alpha = .86$ ).

*Other as Shamer Scale (OAS; Allan, Gilbert, & Goss, 1994; Goss, Gilbert, & Allan, 1994; Portuguese version by Matos, Pinto-Gouveia, & Duarte, 2012)*. This self-report questionnaire was devised to measure external shame (Allan et al., 1994; Goss et al., 1994). The participants rated 18 items according to how frequently they made certain evaluations about how others judge them (e.g., “I feel other people look down on me,” “Other people see me as somehow defective as a person,” and “Other people always remember my mistakes”). Items were rated on a 5-point Likert scale ranging from 0 (never) to 4 (almost always), and higher scores revealed high external shame. In the original study, the scale showed good reliability; Cronbach’s alpha was .92 (Goss et al., 1994).

*Social Comparison Scale (Allan & Gilbert, 1995)*. The Social Comparison Scale was developed to measure self-perceptions of social rank and relative social standing. This scale uses a semantic differential methodology and comprises 11 bipolar constructs. Participants make global comparisons of themselves in relation to other people (e.g., judgements concerned with rank, attractiveness, and how well the person thinks they fit in with others in society). Items are rated on a 10-point scale, and low scores point to feelings of inferiority and general low rank self-perceptions. The scale has shown good reliability; Cronbach’s alphas for the clinical populations were .88 and .96 and for the student populations were .91 and .90 (Allan & Gilbert, 1995).

*General Health Questionnaire (GHQ-28; Goldberg & Hillier, 1979; Portuguese version by Pais-Ribeiro & Antunes, 2003)*. The GHQ-28 is a self-report instrument designed to detect and assess individuals with an increased likelihood of current psychiatric disorder. The original questionnaire comprised 60 items from which shorter versions of 30, 28, 20, and 12 items were developed. The GHQ-28 is a self-report measure of emotional distress and incorporates the following four subscales: somatic symptoms (seven items); anxiety/insomnia (seven items); social dysfunction (seven items), and severe depression (seven items). Participants compare their recent psychological state with their usual state. For each response there is a 4-point scale, ranging from 0 (*not at all*) to 3 (*much more than usual*), with a possible score ranging from 0 to 84. Higher scores correspond to poorer mental health status.

The GHQ has been translated into about 38 languages, and over 50 validity studies have been published. The psychometric properties of the questionnaire are well studied in several countries and clinical populations (e.g., Pais-Ribeiro & Antunes, 2003; Werneke, Goldberg, Yalcin, & Ustun, 2000). Pais-Ribeiro and Antunes (2003) did a preliminary study to identify the psychometric properties of this Portuguese version of the GHQ-28 using two groups of participants: one group ( $n = 30$ ) without disease and one group ( $n = 30$ ) of inpatients with infectious diseases. Results show that the Portuguese version shares the same psychometric properties of the original version, and it seems adequate to be used in research.

### *Analytical Procedure*

CFAs were conducted to test whether the factor solution of the SCS-LF proposed by Neff (2003b) demonstrated a good fit to the Portuguese population. According to the principles for reporting analyses using structural equation modelling, the six-factor model was assessed using the following goodness-of-fit statistics: normed chi-square statistic ( $\chi^2$ ), comparative fit index (CFI), Tucker–Lewis index (TLI), and root mean square error of approximation (RMSEA). A good fit is obtained when the normed  $\chi^2$  is 2 or lower, the CFI, GFI, and TLI are .90 or higher, and the RMSEA is .10 or lower (Marôco, 2010). To compare the relative fit of the competing models, Akaike information criterion (AIC) and the expected cross-validation index (ECVI) were used. The model with the smallest AIC and ECVI has the better fit. The chi-square difference test was used to test the statistical significance of differences in model fit between competing models. The assumption of normality of the items and the existence of outliers was assessed.

When conducting a CFA, one should never be governed by the fit indices of the model alone (Farrell & Rudd, 2009). There are other factors to consider such as the factor loadings and the discriminant validity. Thus, we analyzed the factor loadings ( $\lambda$ ) of the observed variables and the square of the factor loadings, which provide the amount of variance in the observed variable that the underlying construct is able to explain. Normally, it is expected that all items of the factor present values of  $\lambda \geq .50$ . We calculated the average variance extracted (AVE), or average shared variance, of each latent construct to assess convergent validity. Convergent validity is the extent to which indicators (items) of a specific construct share a high proportion of variance in common and is indicated by values of  $AVE \geq .50$  (Marôco, 2011).

We compared the value of the AVE with the square multiple correlation between constructs to assess discriminant validity. To assume that all variables are orthogonal of one another, the value of AVE should be greater than the square multiple correlation between the respective variables (Hair, Anderson, Tatham, & Black, 1998). A final step in CFA is to consider changes to a specific model that has poor fit indices, that is, model respecification, and several different procedures can be used to assist in such modifications. In the present study, we used the inclusion of additional parameters, specifically modification indices (MI; Schumacker & Lomax, 2004). The respecification of the models was thus based on MI ( $> 11$ ;  $p < .001$ ) and theoretical assumptions.

To assess scale reliability, we used both Cronbach's alpha and composite reliability, which provide a much less biased estimate of reliability than alpha and are more appropriate for multidimensional scales (Marôco, 2010). We used a nonparametric test (Mann-Whitney) to conduct a comparison between the groups, given that the assumption of normality of several variables was not assumed. We calculated the effect sizes of statistically significant differences between the groups (Field, 2009). We used the Pearson product-moment correlation coefficient to assess the test-retest reliability of the measure and the convergent validity of the SCS with other measures (OAS, Social Comparison Scale, and GHQ-28). We chose shame and poor mental health because literature has shown that they negatively correlate with self-compassion. However, we expected that a favorable social comparison, meaning the person thinks he or she fits in with others, would be positively related to self-compassion. The statistical procedures were computed using PASW Statistics (version 17) and IBM SPSS AMOS (version 19).

**Table 1**  
*Means, Standard Deviation, Median, and Minimum and Maximum Scores of the Total and Six Self-Compassion Dimensions (Long Form) in Both Samples*

	Sample	<i>M</i>	<i>SD</i>	<i>Mdn</i>	Min	Max
Total	Nonclinical	76.07	18.11	78	27	127
	Clinical	60.25	15.79	60	27	119
Self-kindness	Nonclinical	13.54	4.22	14	5	25
	Clinical	10.57	3.87	10	5	23
Mindfulness	Nonclinical	11.40	3.06	11	4	20
	Clinical	9.55	2.88	10	4	20
Common humanity	Nonclinical	11.78	3.38	12	4	20
	Clinical	10.09	3.15	10	4	20
Self-judgment	Nonclinical	14.80	4.97	14	5	25
	Clinical	18.41	4.05	19	6	25
Isolation	Nonclinical	11.90	3.81	12	4	20
	Clinical	14.77	3.31	15	4	20
Overidentification	Nonclinical	11.95	3.77	12	4	20
	Clinical	14.77	3.24	15	5	20

*Note.* *M* = mean; *SD* = standard deviation; *Mdn* = median.

## Results

### *Descriptive Statistics*

We present descriptive statistics for both samples in Table 1. As expected, individuals from the general population showed higher mean values in self-compassion total, self-kindness, mindfulness and common humanity, and lower values in self-judgment, isolation, and overidentification when compared with the clinical sample.

### *CFA in a Nonclinical Sample*

*Six-factor model of the SCS-LF (model 1).* Goodness-of-fit indices indicated an overall satisfactory fit of the model to the data,  $\chi^2/\text{degree of freedom } [df] = 7.05, p < .001$ ; TLI = .89; CFI = .90; RMSEA = .07;  $p < .001$ . The respecified model, with two pairs of correlated residuals (corresponding to items 7–10 and 5–12), showed a good fit to the data,  $\chi^2/df = 5.91, p < .001$ ; TLI = .91; CFI = .92; RMSEA = .07;  $p < .001$ . The respecified model 1 presented lower values for AIC (2217.58 < 1878.99) and ECVI (1.97 < 1.67), although the chi-square difference was not statistically significant,  $\chi^2/\text{diff} = 342.59, df/\text{diff} = 2, p < .001$ . Overall, we can conclude that the model proposed has an adequate fit to the data.

*Second-order model of SCS-LF (model 2).* Goodness-of-fit indices indicated an overall satisfactory fit of the model to the data,  $\chi^2/df = 10.94, p < .001$ ; TLI = .82; CFI = .83; RMSEA = .09;  $p < .001$ . The respecified model, with five pairs of correlated residuals (mindfulness–kindness, mindfulness–common humanity, and kindness–common humanity, corresponding to items 7–10 and 5–12), showed a good fit to the data,  $\chi^2/df = 5.98, p < .001$ ; TLI = .91; CFI = .92; RMSEA = .07;  $p < .001$ . The respecified model 2 presented lower values for AIC (3425.72 > 1924.10) and ECVI (3.04 > 1.71) and was statistically superior to the original model 2,  $\chi^2/\text{diff} = 1511.62, df/\text{diff} = 5, p < .001$ .

*Construct validity.* The composite reliability of each subscale exceeds .70 (Hair et al., 1998), satisfying the minimal acceptable value ( $SC_{\text{self-kind}} = .92$ ;  $SC_{\text{c.humanity}} = .85$ ;  $SC_{\text{mindfulness}} = .85$ ;  $SC_{\text{self-judge}} = .93$ ;  $SC_{\text{isolation}} = .89$ ;  $SC_{\text{overidentification}} = .88$ ). Standardized loadings ( $\lambda$ ) ranged from .56 to .83, which is clearly above the cutpoint of .40 (Tabachnick & Fidell, 2007). In addition, the coefficients of determination ( $R^2$ ) ranged between .31 and .69, thus showing acceptable values

Table 2

Correlations and Correlation Square Matrix of the Self-Compassion Scale Dimensions in the Nonclinical Sample ( $n = 1128$ )

	Self-kindness	Common humanity	Mindfulness	Self-judgment	Isolation
Common Humanity	.79 (.62)				
Mindfulness	.89 (.79)	.90 (.81)			
Self-judgment	-.54 (.29)	-.35 (.12)	-.45 (.20)		
Isolation	-.52 (.27)	-.44 (.19)	-.51 (.26)	.90 (.81)	
Overidentification	-.67 (.45)	-.45 (.20)	-.56 (.31)	.97 (.94)	.96 (.92)

Note. Squared correlations values are presented in parentheses. All correlations were significant at the .01 significance level.

(> .25). Standardized loadings for the six first-order factors on the second-order factor were .56 for self-kindness ( $R^2 = .31$ ), .52 for mindfulness ( $R^2 = .27$ ), .42 for common humanity ( $R^2 = .18$ ), -.95 for self-judgment ( $R^2 = .90$ ), -.94 for Isolation ( $R^2 = .88$ ), and -1.00 for overidentification ( $R^2 = 1.00$ ).

The convergent validity analysed through the average variance extracted (AVE) was also very good (> .05; Hair et al., 1998) for all the subscales, indicating that the latent factors are well explained by its observable variables:  $AVE_{\text{self-kind}} = .70$ ;  $AVE_{\text{c.humanity}} = .60$ ;  $AVE_{\text{mindfulness}} = .59$ ;  $AVE_{\text{self-judge}} = .73$ ;  $AVE_{\text{isolation}} = .67$ ; and  $AVE_{\text{overidentification}} = .66$ . Regarding discriminant validity, the results indicate that the factors of the positive pole (self-kindness, mindfulness, and common humanity) of the SCS-LF are clearly distinguished from the factors of the negative pole (self-judgment, overidentification, and isolation). However, the factors of the positive pole were not orthogonal of one another, and neither were the factors of the negative pole (see Table 2 for squared correlations between the factors).

*Second-order model of SCS-SF (model 3).* Goodness-of-fit indices indicated an overall bad fit of the model to the data,  $\chi^2/df = 25.72$ ,  $p < .001$ ; TLI = .74; CFI = .81; RMSEA = .15;  $p < .001$ . The respecified model, with four pairs of correlated residuals (mindfulness-kindness, mindfulness-common humanity, kindness-common humanity, corresponding to items 2-7), showed an adequate fit to the data,  $\chi^2/df = 5.70$ ,  $p < .001$ ; TLI = .95; CFI = .97; RMSEA = .07;  $p < .001$ . The respecified model 3 presented lower values for AIC (1318.624 > 342.785) and ECVI (1.17 > .30) and was statistically superior to the original model 3,  $\chi^2/diff = 983.839$ ,  $d/dfdiff = 4$ ,  $p < .001$ . The short form of the SCS also presented composite reliability above .70 (.97), and factor loadings ranged between .60 and .84 in the nonclinical sample.

### Confirmatory Factor Analyses in a Clinical Sample

*Six-factor model of the SCS-LF (model 4).* Goodness-of-fit indices indicated an overall satisfactory fit of the model to the data,  $\chi^2/df = 2.66$ ,  $p < .001$ ; TLI = .86; CFI = .88; RMSEA = .07;  $p < .001$ . The respecified model, with three pairs of correlated residuals (corresponding to items 7-10, 13-18, and 5-12) showed an adequate fit to the data,  $\chi^2/df = 2.37$ ,  $p < .001$ ; TLI = .88; CFI = .90; RMSEA = .07;  $p < .001$ . The respecified model 4 presented lower values for AIC (2217.58 < 878.99) and ECVI (1.97 < 1.67), but the chi-square difference was not statistically significant,  $\chi^2/diff = 342.59$ ,  $d/dfdiff = 2$ ,  $p < .001$ . Overall, we can conclude that the model proposed has a good fit to the data.

*Second-order model of SCS-LF (model 5).* Goodness-of-fit indices indicated an overall satisfactory fit of the model to the data,  $\chi^2/df = 3.46$ ,  $p < .001$ ; TLI = .79; CFI = .81; RMSEA = .090;  $p < .001$ . The respecified model, with one pair of correlated residuals (mindfulness-common humanity), showed adequate fit to the data,  $\chi^2/df = 3.11$ ,  $p < .001$ ; TLI = .82; CFI = .84; RMSEA = .08;  $p < .001$ . The respecified model 5 presented lower values for AIC (1189.35

Table 3

Correlations and Correlation Square Matrix of the Self-Compassion Scale Dimensions in the Clinical Sample ( $n = 312$ )

	Self-kindness	Common humanity	Mindfulness	Self-judgment	Isolation
Common Humanity	.72 (.52)				
Mindfulness	.88 (.77)	.90 (.81)			
Self-judgment	-.62 (.38)	-.43 (.18)	-.55 (.30)		
Isolation	-.47 (.22)	-.52 (.27)	-.58 (.34)	.90 (.81)	
Overidentification	-.57 (.32)	-.52 (.27)	-.66 (.44)	.94 (.88)	.96 (.92)

Note. Squared correlations values are presented in parentheses. All correlations were significant at the .01 significance level.

> 1085.84) and ECVI (3.82 > 3.49) and was statistically superior to the original model,  $\chi^2/\text{diff} = 105.51$ ,  $df/\text{diff} = 1$ ,  $p < .001$ .

**Construct validity.** The composite reliability (CR) of each subscale exceeds .70 (Hair et al., 1998), satisfying the minimal acceptable value ( $SC_{\text{self-kind}} = .92$ ;  $SC_{\text{c.humanity}} = .85$ ;  $SC_{\text{mindfulness}} = .85$ ;  $SC_{\text{self-judge}} = .93$ ;  $SC_{\text{isolation}} = .89$ ;  $SC_{\text{overidentification}} = .88$ ). Standardized loadings ( $\lambda$ ) ranged from .51 to .81, and the coefficients of determination ( $R^2$ ) ranged between .26 and .66. Standardized loadings for the six first-order factors on the second-order factor were .61 for self-kindness ( $R^2 = .37$ ), .68 for mindfulness ( $R^2 = .46$ ), .54 for common humanity ( $R^2 = .29$ ), -.93 for self-judgment ( $R^2 = .86$ ), -.92 for Isolation ( $R^2 = .85$ ), and -1.00 for overidentification ( $R^2 = 1.00$ ).

The values of the convergent validity were acceptable for all the subscales:  $AVE_{\text{self-kind}} = .67$ ;  $AVE_{\text{c.humanity}} = .59$ ;  $AVE_{\text{mindfulness}} = .52$ ;  $AVE_{\text{self-judge}} = .60$ ;  $AVE_{\text{isolation}} = .53$ ; and  $AVE_{\text{overidentification}} = .60$ . The results of discriminant validity were similar to those of the nonclinical sample, again suggesting that the factors of the positive pole are distinct from the factors of the negative pole, but not between them (Table 3).

**Second-order model of SCS-SF (model 6).** Goodness-of-fit indices indicated an overall bad fit of the model to the data,  $\chi^2/df = 6.73$ ,  $p < .001$ ; TLI = .73; CFI = .80; RMSEA = .14;  $p < .001$ . The respecified model, with four pairs of correlated residuals (mindfulness–kindness, mindfulness–common humanity, kindness–common humanity, corresponding to items 2–7), showed an adequate fit to the data,  $\chi^2/df = 2.98$ ,  $p < .001$ ; TLI = .91; CFI = .94; RMSEA = .08;  $p < .001$ . The respecified model 6 presented lower values for AIC (407.013 > 223.148) and ECVI (1.30 > .71) and was statistically superior to the original model 6,  $\chi^2/\text{diff} = 191.865$ ,  $df/\text{diff} = 4$ ,  $p < .001$ . The short form of the SCS also presented composite reliability above .70 (.96), and factor loadings ranged between .47 and .81 in the clinical sample.

### Reliability Studies

**Test-retest reliability.** We assessed test-retest reliability by computing Pearson correlations between the SCS-LF scores of 34 students in two consecutive administrations of the questionnaire with a 4-week interval (30 days). Test-retest reliability was acceptable for the total scale ( $r = .78$ ). </P>

**Convergent validity.** We assessed convergent validity by computing Pearson correlations between SCS and other self-report measures, namely, the Portuguese versions of the GHQ-28, the Social Comparison Scale, and the OAS. Pearson correlations for the SCS-LF are shown in Table 4. In general, the correlations were as expected in both samples, suggesting that self-compassion is negatively associated with psychopathological symptoms and shame and is associated with positive social comparison, thus supporting the convergent validity of the measure.

Table 4

Correlation Coefficients (Two-tailed Pearson  $r$ ) Between the Study Variables in Nonclinical ( $n = 1128$ ) and Clinical Samples ( $n = 316$ )

	Self-Compassion Scale-Long Form						
	Total	Self-kindness	Mindfulness	Common humanity	Self-judgment	Isolation	Over-identification
Nonclinical sample							
GHQ-28							
Total	-.63**	-.47**	-.44**	-.32**	.61**	.58**	.58**
Somatic symptoms	-.46**	-.35**	-.33**	-.22**	.44**	.42**	.43**
Anxiety/insomnia	-.54**	-.40**	-.38**	-.24**	.53**	.50**	.52**
Social dysfunction	-.49**	-.34**	-.33**	-.24**	.50**	.45**	.47**
Severe depression	-.63**	-.48**	-.45**	-.37**	.58**	.58**	.54**
Social Comparison Scale	.54**	.50**	.41**	.35**	-.40**	-.42**	-.42**
OAS	-.63**	-.42**	-.40**	-.29**	.60**	.63**	.58**
Clinical sample							
GHQ-28							
Total	-.48**	-.33**	-.39**	-.21**	.45**	.43**	.41**
Somatic symptoms	-.31**	-.21**	-.27**	-.12*	.26**	.30**	.29**
Anxiety/insomnia	-.35**	-.25**	-.28**	-.09	.35**	.32**	.32**
Social dysfunction	-.41**	-.25**	-.31**	-.20**	.41**	.34**	.35**
Severe depression	-.51**	-.38**	-.42**	-.27**	.45**	.46**	.38**
Social Comparison Scale	.52**	.47**	.39**	.40**	-.36**	-.42**	-.34**
OAS	-.57**	-.36**	-.37**	-.29**	.53**	.58**	.47**

Note. GHQ = General Health Questionnaire; OAS = Other as Shamer Scale.

\*\* $p < .001$ .

Similar values were found for the SCS-SF. Also, the correlation between the SCS-LF and SCS-SF was .98.

### Differences Between the Groups in Self-Compassion (SCS-LF)

To test the differences between the clinical and nonclinical samples in self-compassion, Mann-Whitney tests were conducted. Our findings suggested that the clinical group had higher median ( $Mdn$ ) scores in self-judgment ( $Mdn = 19.00$ ,  $n = 316$ ;  $Mdn = 14.00$ ,  $n = 1128$ ),  $U = 102076,50$ ,  $Z = 11.58$ ,  $p < .001$ ,  $r = .34$ ; isolation ( $Mdn = 15.00$ ;  $Mdn = 12.00$ ),  $U = 100307,00$ ,  $Z = 11.86$ ,  $p < .001$ ,  $r = .35$ ; and overidentification ( $Mdn = 15.00$ ;  $Mdn = 12.00$ ),  $U = 102263,50$ ,  $Z = 11.56$ ,  $p < .001$ ,  $r = .34$ . And they had lower median scores in self-kindness ( $Mdn = 10.00$ ;  $Mdn = 14.00$ ),  $U = 105818,50$ ,  $Z = -11.01$ ,  $p < .001$ ,  $r = -.33$ ; mindfulness ( $Mdn = 10.00$ ;  $Mdn = 11.00$ ),  $U = 116770,50$ ,  $Z = -9.36$ ,  $p < .001$ ,  $r = -.28$ ; common humanity ( $Mdn = 10.00$ ;  $Mdn = 12.00$ ),  $U = 125627,50$ ,  $Z = -7.99$ ,  $p < .001$ ,  $r = -.24$ ; and the total scale ( $Mdn = 60.00$ ;  $Mdn = 78.00$ ),  $U = 89212,00$ ,  $Z = -13.55$ ,  $p < .001$ ,  $r = -.40$ . Overall, the effect sizes were medium (Field, 2009).

### Percentiles

To further analyze the differences between the clinical and nonclinical samples in self-compassion scores (SCS-LF), a graphic representation of the percentiles for the six factors was conducted. An inspection of Figures 1 and 2 suggests that in the clinical sample there is greater variability in the scores of the self-compassion factors. Specifically, the three negative factors seem to differ from the positive factors, and thus using a total score or a mean of self-compassion can bias the data and give an incomplete picture of the nature of self-compassion, mainly in clinical populations.

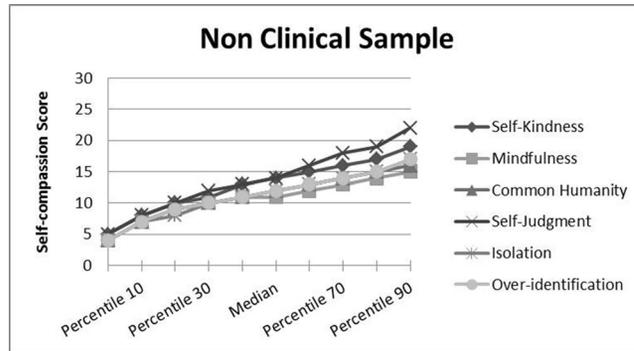


Figure 1. Graphical representation of percentiles of the six components of the SCS-LF in the nonclinical sample ( $N = 1128$ ).

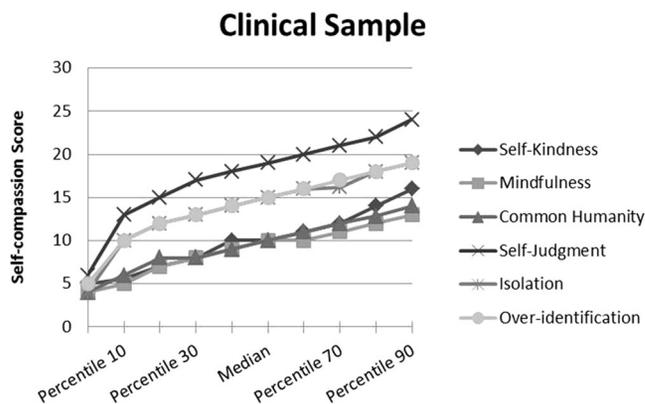


Figure 2. Graphical representation of percentiles of the six components of the SCS-LF in the clinical sample ( $N = 312$ ).

## Discussion

The aim of the present study was to examine the factorial structure of the SCS-LF/SF versions in nonclinical and clinical samples from the Portuguese population. Overall, the CFA of the SCS-LF suggested that both the six-factor and the second-order models presented a good fit to the data in both samples. In the nonclinical sample, residuals corresponding to items 5 and 12 (kindness) and to items 7 and 10 (common humanity) were correlated. In the clinical sample, the same pairs were correlated, plus items 13 and 18 belonging to Isolation. These results were expected given that the correlated items belonged to the same theoretical factor and have similar content (e.g., item 5, “I try to be loving toward myself when I’m feeling emotional pain,” and item 12, “When I’m going through a very hard time, I give myself the caring and tenderness I need”—kindness). Goodness-of-fit values were lower for the clinical sample, which can be explained by the sample size (Tabachnick & Fidell, 2007).

However, one shouldn’t be governed by fit indices alone, and other factors should be taken into account. Thus, despite the lower goodness-of-fit indices, composite reliability and factorial validity were well demonstrated. These results indicate that when using the scale, one can look at the six individual components or use a total score of the SCS. This is in line with Neff’s conceptualization, in which self-compassion entails extending kindness and understanding to oneself rather than harsh self-criticism and judgment; seeing one’s experiences as part of the larger human experience rather than separating and isolating; and holding one’s painful thoughts and feelings in balance awareness rather than overidentifying with them (Neff, 2003a,b).

Regarding discriminant validity, results indicated that the factors of the positive pole (self-kindness, mindfulness, and common humanity) of the SCS are clearly distinguished from the factors of the negative pole (self-judgment, overidentification, and isolation), but the factors of the positive pole were not orthogonal of one another, and neither were the factors of the negative pole. Other studies have found similar results, in which the original factor structure was replicated (e.g., Deniz et al., 2008; Mantzios et al., 2013). However, in the Williams et al. (2014) study, both six-factor and six-factor hierarchical structures were not endorsed in any of the three samples recruited, although the six-factor structure was close to an acceptable fit in the convenience sample. Several reliability studies were performed to explore the psychometric properties of the scale. Results showed good internal consistency for the six subscales, and test-retest reliability analysis for a 4-week period supported overall stability of the measure in both samples.

The pattern of correlations obtained indicated that the SCS-LF is positively associated with favorable social comparison, suggesting that individuals who have a warm and kind self-to-self relationship, see their experiences as part of the human condition, and are more aware and accepting of their painful internal experiences (thoughts and feelings) compare with others in a more favorable way and feel they fit in with their social groups. These results are in accordance with previous findings that showed the importance of self-compassion as an adaptive process especially relevant to the interpersonal sphere (social connectedness; Neff, 2003a,b; Neff et al., 2005). In turn, shame was negatively correlated with self-compassion. Thus, individuals who feel they are seen negatively by others, i.e., as inferior, weak, defective, or worthless, are more judging toward themselves, overidentify with their negative thoughts and feelings, and feel disconnected and isolated from others.

Finally, self-compassion was negatively correlated with psychopathological symptoms, in particular depression. These results are in line with the literature and previous findings, in which self-compassion was negatively associated with other psychopathological facets (for a review of the association between self-compassion and psychopathology, see MacBeth & Gumbley, 2012). The results obtained from the comparison between clinical and nonclinical samples further support these findings. In particular, we found that individuals with several psychiatric diagnoses presented significantly lower levels of self-compassion (self-kindness, mindfulness, and common humanity) and higher levels of self-judgment, overidentification and isolation.

Regarding the SCS-SF, results showed that the second-order models presented a good fit to the data in both samples. Also, it presented good internal consistency, factorial validity, and convergent validity. When compared with the long version, the SCS-SF presented a better fit to the data. The SCS-SF represents a valid alternative to the long form, especially when looking at overall self-compassion scores. The near perfect correlation with the SCS-LF further supports this finding. In short, this study showed that one can use either a self-compassion total score (using the long or short version) or the six factors separately. However, the analysis of the percentiles indicates that using the total score in clinical populations may be limiting, and analyzing the six components separately may provide more detailed information regarding the nature of self-compassion, which can then be useful for research and clinical purposes. In this case, using the long version of the scale is recommended.

This study has several strengths. First, this is the only study to our knowledge that explored the factor structure and psychometric properties of both long and short versions of the SCS in a large clinical sample, which has important implications. In fact, given that this study and others has shown that individuals with psychopathology lack the ability to be self-compassionate and this can help maintain their difficulties and affect treatment efficacy and relapse (Gilbert & Procter, 2006; Gilbert & Irons, 2005; Rector, Bagby, Segal, Joffe, & Levitt, 2000), it is important for the clinician to have a validated instrument to assess this construct. This can then inform the clinician regarding the therapeutic intervention, by targeting the development of specific self-compassion skills (e.g., kindness, mindfulness, and recognition of common humanity). Also, we highlight the robust statistical strategy (namely, the use of composite reliability as an alternative to Cronbach's alpha, factor loadings, AVE, and discriminant validity), which is not common in studies reporting CFA and allows researchers to have greater confidence in the results.

### Limitations

Our results should be interpreted in light of some limitations. Specifically, the sample mainly comprised highly educated females in young adulthood, and with a high percentage of college students in the nonclinical sample. Thus, future studies should use more heterogeneous samples regarding the sociodemographic characteristics and include other developmental stages (e.g., adolescents and elderly).

### Conclusions

In sum, given the good psychometric properties of the long and short versions of the SCS, their use is encouraged and recommended for the assessment of self-compassion and its components in clinical and research settings.

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