Psicothema (2022) 34(4) 621-630

Psicothema

https://www.psicothema.com/es • ISSN 0214–7823

Colegio Oficial de Psicólogos del Principado de Asturias

Methodology

Colombian Adaptation of the Self-Compassion Scale (SCS)

Nicolás Martínez-Ramos[1], Lucila Cárdenas[1] and Daniel Camilo Aguirre-Acevedo[2]

1 Universidad San Buenaventura, Medellín.
2 Universidad de Antioquia, Medellín.

ARTICLE INFO

Received: February 17, 2022
Accepted: May 16, 2022

Keywords:
Self-Compassion-Scale (SCS)
Psychometric-characterization
Bifactor analysis
Validation

ABSTRACT

Background: Self-Compassion is crucial for assessing how people relate to their suffering in moments of personal difficulty. The objective of this study was to check the psychometric properties of the Self-Compassion Scale (SCS) in a Colombian sample. **Method:** The Spanish version of the SCS was adapted to the Colombian context via a content validity technique. This version was administered to 751 Colombians from the general community. Psychometric analysis was performed using R studio packages. **Results:** 7 models were tested, the best fit was found for the bifactor ESEM model (χ^2/df = 0.86, CFI = 1, TLI= 1, RMSEA= 0.00, SRMR= 0.01). This model produced optimal reliability indices (ωh = 0.83, FD= 0.93, H= 0.96). **Conclusions:** The study produced initial psychometric evidence of the structure of the SCS in Colombia, with evidence of a general factor in the bifactor ESEM model. More research is needed to justify the complete usage of the SCS in the country.

Adaptación Colombiana de la Escala de Autocompasión (EAC)

Palabras clave:
Escala-de-la-Autocompasión (EAC)
Caracterización-psicométrica
Análisis-bifactor
Validación.

RESUMEN

Antecedentes: La Autocompasión es un concepto clave para evaluar la forma en que las personas se relacionan con su sufrimiento en momentos de dificultad personal. El objetivo de este estudio fue verificar las propiedades psicométricas de la Escala de Autocompasión (EAC) en una muestra colombiana. **Método:** Se adaptó la versión en español de la SCS al contexto colombiano a través de una técnica de validez de contenido. Esta versión fue administrada a 751 colombianos de la comunidad en general. Los análisis psicométricos se realizaron usando diferentes paquetes de R Studio. **Resultados:** 7 modelos fueron probados, el que mejor ajustó fue el modelo bifactor ESEM (χ^2/df = 0.86, CFI = 1, TLI= 1.00, RMSEA= 0.000, SRMR= 0.01). Este modelo obtuvo índices de confiabilidad adecuados (ωh = 0.83, FD= 0.93, H= 0.96). **Conclusiones:** Se logró obtener una evidencia psicométrica inicial de la estructura del EAC en Colombia, en la cual se obtuvieron pruebas de la existencia de un factor general en el modelo ESEM bifactorial. Es necesario hacer más investigación para justificar completamente el uso del SCS en el país.

Cite as: Martínez-Ramos, N., Cárdenas, L., & Aguirre-Acevedo, D. C. (2022). Colombian Adaptation of the Self-Compassion Scale (SCS). *Psicothema, 34*(4), 621-630. https://doi.org/10.7334/psicothema2022.86
Corresponding author: Nicolás Martínez-Ramos, ncolasmramos@gmail.com

Compassion has been a topic of interest for many intellectual traditions, in which it has been associated with a way to comprehend human suffering. From an evolutionist perspective, compassion is an emotional experience that fulfills the function of facilitating the protection of the weak and the ones who suffer (Goetz et al., 2010). Under this approach, Gilbert (2014) explains that compassion can be directed: Towards others, from others towards oneself, and self-directed. Under this approach, Kristin Neff proposed the concept of Self-Compassion (SC) as a compassionate attitude toward the self (Germer & Neff, 2013; Neff, 2003b; Neff, 2016b).

Currently, this construct has been well accepted by the academy since it is a model that explains how individuals can react, understand and pay attention to their suffering in moments of personal difficulty (Neff & McGehee, 2010; Neff, 2016b). SC is composed of six components, three positive: Self Kindness (SK), Common Humanity (CH) and Mindfulness (M), and three negative: Self Judgment (SJ), Isolation (I), and Over Identification (OI). Neff et al. (2019) stated that SK is related to being gentle and compressive towards the self, giving warmth and acceptance to the self. CH implies taking a broader perspective regarding personal deficiencies and recognizing those experiences as a part of the shared human experience. M is a state that allows one to be aware of an experience of suffering with clarity and balance.

About the negative dimensions, Neff has not defined them explicitly, which is assumed that they are the exact opposite of the positive ones. However, in other publications, this author has defined them implicitly, assuring that SJ is implied with self-criticism and self-disapproval (Neff, 2016a, 2016b), which includes the attacks, emissions of judgments, and scolds towards the self for being "inappropriate" (Neff & Pommier, 2013). Isolation comes from the conception of a perfect self; therefore, it is taken from an egocentric perspective when it comes to understanding the own suffering (Neff, 2003a; Neff, 2016a). OI involves the excessive focus on negative emotions associated with personal failure and their significance in personal worth (Neff, 2003a; Neff et al., 2005).

Related to the measurement of SC, the main instrument available is the Self-Compassion Scale (SCS) proposed by Neff (2003b). This author proposed and proved the existence of a 6-factor model corresponding to the dimensions SK, SJ, CH, I, M and OI through a CFA (GFI= 0.91 -0.99, NNFI=0.88 -0.99). However, taking into account the dimensionality of this construct it has been proposed other models, such as hierarchical models (Neff, 2003a), bifactor models (Neff, 2016a; Neff, 2016b), and two independent models assessing the positive and negative dimensions (Zeng et al., 2016), ESEM models (Neff et al., 2019) and even ITR models (Halamová et al., 2018). Table 1 shows 26 studies that studied the SCS's psychometric properties, including the type of factor analysis made by the authors and the models with the best fit. The studies that had used the SCS's short form (Raes et al., 2011) were excluded from the table.

As can be illustrated, worldwide exists, considerable interest in studying the psychometric properties of the SCS. Also, it can be seen that the 6-factor model has been reported as the model with the best goodness fit. This fact is coherent with Neff's first conceptualization in which self-compassion appears only in the presence of the six dimensions (Germer & Neff, 2013; Neff, 2003a; Neff, 2016a; Neff & Pommier, 2013). Despite this last statement, some authors find it difficult to accept the 6-factor model entirely due to the usage of inverted items corresponding to the negative dimensions, which compromises the acceptance of the SCS as a total score (Muris, 2016; Muris & Petrochi, 2017; Muris et al., 2018). Because of this, some researchers have proposed that the positive and negative components should be separated or at least grouped in a higher level factor independently (Costa et al., 2016; Kumlander et al., 2018; López et al., 2015; Muris & Petrochi, 2017; Zeng et al., 2016). Although this critique is coherent with the academic recommendations (Suárez-Alvarez et al., 2018), it is also difficult to accept since few studies have accomplished a differential adjustment from the 6-factor model (Halamová et al., 2017; Zeng et al., 2016).

Table 1.
Studies that had checked the psychometric properties of the SCS.

Study	Sample Size	Factor Analysis.	Models with best fit	Adjustment indices			
				CFI/GFI	TLI/NNFI	RMSEA	SRMR
USA: Neff (2003b)	391	CFA	6-factor model	[0.91 -0.99]	[0.88 -0.99]		
Turkey: Deniz et al. (2008)	341	EFA, CFA		Non-fit			
Germany: Hupfeld & Ruffieux (2011)	561	EFA, CFA, ESEM	6-factor model	0.98		0.03	0.02
Iran: Azizi et al., (2013)	575	CFA	6-factor model	0.90	0.86	0.08	
Greece: Mantzios et al. (2013)	551	EFA		6-factors extracted			
Italy: Petrocchi et al. (2014)	424	CFA	6-factor model	0.90	0.97	0.08	0.07
Japan: Arimitsu (2014)	366	CFA	6-factor model:	0.86	0.83	0.66	
Spain: García-Campayo et al. (2014)	268	CFA	6-factor model:	0.95		0.06	0.05
UK: Williams et al., (2014), 3 samples	1599	CFA		Non fit in any of the three samples.			
Holland: López et al., (2015)	1643	EFA, CFA		2-factor model EFA, CFA did not fit.			
Portugal: Costa et al., (2016), clinical sample	361	CFA	6-factor model	0.88	0.86	0.07	
Portugal: Cunha et al., (2016), teens sample.	3165	CFA	6-factor model	0.93	0.92	0.05	
Brazil: De Souza & Hutz (2016)	432	EFA, CFA	Bifactor model with 6 factors	0.90	0.88	0.08	
France: Kotsou & Leys (2016)	1554	CFA	6-factor model:	0.94	0.93	0.05	0.04
China: Zeng et al. (2016), 2 samples	403	CFA	3-positive factor model	0.97	0.94	0.07	
Chile: Araya et al. (2017)	268	EFA		4-factor structure in EFA			
USA: Neff et al. (2017), 4 samples.	2221	CFA	6-factor model.	>0.94	>0.92	<0.06	<0.05
Hungary: Tóth-Király et al. (2017).	505	CFA, ESEM	Bifactor ESEM.	0.97	0.94	0.05	

Table 1.
Studies that had checked the psychometric properties of the SCS (Continuation).

Germany: Coroiu et al., (2018)	2448	CFA	Bifactor model with one general factor	0.90	0.89	0.08	
Slovakia: Halamová et al. (2017)	1181	IRT	ITR model.	0.95		0.04	0.08
China: Kumlander et al. (2018)	1725	CFA	6-factor model	0.92	0.91	0.04	0.06
Peru: Pastorrelli & Gargurevich (2018)	315	EFA, CFA	6-factor model	0.94		0.07	0.07
Australia, England, USA, Brazil, Portugal, Spain, China, South Korea, Japan, Iran, Greece, Canada, Norway: Neff et al. (2019)	11685	CFA, ESEM	Bifactor ESEM one general factor	0.99	0.97	0.05	
Peru: Ardela-Cabrera, & Olivas, (2019).	260	EFA, CFA	6-factor model	0.90		0.05	0.03
Arabic Region: Alabdulaziz et al., (2020)	322	EFA		6-factor extracted.			
Argentina: Rodriguez de Behrends, et al. (2021).	252	CFA	6-factor model	0.92		0.06	

Note. EFA = Exploratory Factor Analysis, CFA = Confirmatory Factor Analysis, ESEM = Exploratory Structural Equation Modeling, ITR = Item Response Theory

On the other hand, Neff has stated that the best models that can explain SC besides the 6-factor model and keep continuing interpreting SCS as a total score are the bifactor model and the bifactor ESEM model, models that can show the real multi-dimensionality underlying SC (Neff, 2016a; Neff, 2016b; Neff et al., 2017; Neff et al., 2018; Neff et al., 2019). In the bifactor CFA model, the item's covariance is collected by a general factor (that reflects all the covariance from all items scale) and a group of specific factors (that reflect the additional communality) (Reise, 2012). The bifactor ESEM is less restrictive than the CFA because it allows all the observed variables to load to the specific factors (Reise et al., 2010).

Revising the degree of involvement of Colombia with the SCS; in the country, the research has been limited to the usage of the version validated by García –Campayo et al. (2014), assuming a 6-factor structure (e.g., Arcila, 2020; González, 2017; Pérez & Trujillo, 2018). However, taking into account that the SCS was proposed under the Classical Test Theory (CTT), in which the variance depends on the sample characteristics (Muñiz, 1998; 2010), it can be thought that in a Colombian sample this factor structure could be different, justified on the divergent results of some studies referring to the SCS structure (see Table 1). On the other hand, considering that in the Spanish-speaking studies, the size of samples was smaller than 350 subjects (see Table 1), the generalization of those studies may be limited when it is intended for its usage in Colombia. For that, this study aimed to obtain the first psychometric evidence of SCS in a Colombian Sample.

Method

Participants

It was made a convenience non-probabilistic sampling aiming to compose a sample of Colombians older than 18 with access to electronic devices. Also, it was expected to obtain a sample no smaller than 500 subjects, considering the literature's recommendations when conducting CTT studies and confirmatory analyses (Muñiz, 2010; Kyriazos, 2018).

All participants were contacted via social media and agreed to participate by giving their consent. The data was collected via Google forms between September 2020 and April 2021. The final sample comprised 751 Colombians: 34% males, 66% females, aged between 18 and 76 years (M= 32.8, SD= 12.3). 56.3% were from the capital, 25.4% were undergraduate students, 28.2% had postgraduate education, 40.6% finished undergraduate formation, 31.3% were students or professionals in psychology, and 60.5% were from a mid-socioeconomic status.

Instruments

The Self-Compassion Scale (SCS) was proposed by Neff (2003b), which assesses the SC in six dimensions (SK, SJ, CH, I, M, OI) through a 5-point frequency Likert scale (1= almost never, 5=almost ever). In order to obtain a total score, the items from the negative dimensions must be inverted, and then all items are summed to achieve a final score.

Currently, there are two SCS Spanish versions, one from Spain by García – Campayo et al. (2014) and the other from Chile by Araya – Véliz et al. (2017). In this study, was chosen the version of García – Campayo et al. (2014) because it confirmed a 6-factor structure through a CFA (see Table 1), the scale conserved all original items, and it has been utilized in the country (e.g., Arcila, 2020; González, 2017; Pérez & Trujillo, 2018).

Procedure

In order to adapt the SCS, following Muñiz et al. (2013) and Vallejo-Medina et al. (2017) guidelines, the group of researchers contacted Neff and the group of García-Campayo et al. (2014) for their permission. All of them agreed, but Neff specified that doing a bifactor CFA and a bifactor ESEM (Personal communication via email) was necessary. After that, an expert judge technique was made to adjust the instrument in the Colombian context and obtain content validity evidence that could show how the content of the dimensions is assessed by its items (Sireci & Faulkner-Bond, 2014).

The SCS was judged by 11 experts with postgraduate formation and experience in different areas such as psychometrics, clinical psychology and positive psychology. All judges evaluated the items proposed by García – Campayo et al. (2014) on a scale from 1 to 4, taking into account the criteria of relevance (degree in which the items asses the content proposed in the dimensions), coherence (conceptual relation between each item and its dimension) and clarity (degree of content precision, the correct use of appropriate terms for the objective sample). The degree of agreement was calculated using the Content Validity Index (CVI) proposed by Lawshee (1975).

Data analysis

The analysis was performed in R Studio (R Studio Team, 2022), the packages utilized were: "foreign", "tidyverse", "dplyr", "summarytools", "moments", "nortest" "psychometric", "psych", "lavaan", "ufs" "semTools", "semPlot", "GPArotation", and "BifactorIndicesCalculator"

The psychometric analyses include descriptive, internal consistency and factor analyses. It is essential to mention that the CFA and ESEM analysis were conducted instead of the EFA as is usually recommended (Ferrando et al., 2022; Izquierdo et al., 2014); this is because there is evidence that at a certain point assures a preset factor structure (see Table 1). Also, this happens since the EFA does not allow to explore a bifactor structure, although this type of analysis and the SEM approaches are equally valid (Ferrando, 2021). However, if any adjustment was not found, it was planned to do an EFA and then a CFA to confirm this new structure.

Seven models were tested, corresponding to the current debate related to the factor structure of SC; those models were: (1) the 3-factor model initially proposed in Neff (2003a; 2003b), (2) the 6-factor model initially proposed in Neff (2003b), (3) 1-higher level model firstly suggested in Neff (2003b), (4) 2-higher factors grouping the positive and negative dimensions respectively (Costa et al., 2016; Kumlander et al., 2018; López et al., 2015; Muris & Petrochi, 2017), (5) a bifactor model with one general factor (Neff, 2016a; Neff, 2016b; Neff et al., 2017; Neff et al., 2019), (6) a bifactor model with two general factors proposed in Neff et al. (2019) and a (7) bifactor ESEM (Neff et al., 2019).

Results

Referring to the content validity evidence, the CVI was calculated. This method identifies the degree of agreement between judges regarding all items' essentiality of clarity, coherence and relevance. According to Tristán-López (2008), with 11 judges, a punctuation of 0.64 will be sufficient to consider the essentiality of an item. Table 2 shows the results.

Considering these results and the judges' qualitative recommendations, the following items were modified SK2, SK3, SK4, SJ1, SJ2, SJ5, CH1, CH2, CH3, I3, M4, OI1, OI2 and OI4. Although items SJ3, I2, I4, and M1 having a score equal to or below 0.45, they were not modified because their Spanish translation is the exact translation from the original version. However, this information was considered to understand the possible maladjustment of these items to any of the models tested.

The descriptive analysis are showed in Table 3, which were intended to obtain an initial evidence of the statistical behavior of items (Muñiz & Fonseca-Pedrero, 2019). The 26 items had mean values near the midpoint of the scale and standard deviations superior to 1. Skewness values of all items oscillated between -1 and 1. Regarding the kurtosis, values were between -2 and 2; last, all homogeneity indices were above 0.35.

Table 2.
Content validity.

Item	R	C	CL	Final item translated into Spanish
SK1	1	0.82	0.82	Trato de ser cariñoso/a conmigo mismo/a cuando siento malestar emocional [I try to be loving towards myself when I'm feeling emotional pain].
SK2	0.64	1	1	Cuando estoy pasando por un momento muy difícil, me doy el cuidado y cariño que necesito [When I'm going through a very hard time, I give myself the caring and tenderness I need].
SK3	0.64	0.45	0.45	Soy amable conmigo mismo/a cuando estoy sufriendo [I'm kind to myself when I'm experiencing suffering].
SK4.	0.82	1	1	Soy tolerante con mis propios defectos y debilidades [I'm tolerant of my own flaws and inadequacies]
SK5	0.64	1	0.82	Trato de ser comprensivo/a y paciente con aquellos aspectos de mi personalidad que no me gustan [I try to be understanding and patient towards those aspects of my personality I don't like]
SJ1	0.64	1	1	Desapruebo y juzgo mis defectos e imperfecciones [I'm disapproving and judgmental about my own flaws and inadequacies]
SJ2	0.82	1	1	Cuando vienen momentos muy difíciles tiendo a ser duro/a conmigo mismo/a [When times are really difficult, I tend to be tough on myself]
SJ3	0.45	0.82	0.82	Soy intolerante e impaciente con aquellos aspectos de mi personalidad que no me gustan [I'm intolerant and impatient towards those aspects of my personality I don't like]
SJ4	0.82	0.64	0.82	Cuando veo aspectos de mí mismo/a que no me gustan, me critico continuamente [When I see aspects of myself that I don't like, I get down on myself]
SJ5	0.64	0.64	0.64	Puedo ser insensible hacia mí mismo/a cuando estoy experimentando sufrimiento [I can be a bit cold-hearted towards myself when I'm experiencing suffering]
CH1	1	1	1	Cuando las cosas me están saliendo mal, veo las dificultades como parte de lo que a todo el mundo le toca vivir [When things are going badly for me, I see the difficulties as part of life that everyone goes through]
CH2	0.82	1	0.82	Cuando estoy desanimado y triste, recuerdo que hay muchas personas en el mundo que se sienten como yo [When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am].
CH3	0.64	0.82	0.82	Cuando me siento incapaz, intento recordar que esos sentimientos son compartidos por casi todas las personas [When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people]
CH4	1	0.82	0.82	Trato de ver mis defectos como parte de la condición humana [I try to see my failings as part of the human condition]
I1	0.64	0.82	0.82	Cuando pienso en mis deficiencias, tiendo a sentirme más separado/a y aislado/a del resto del mundo [When I think about my inadequacies it tends to make me feel more separate and cut off from the rest of the world].
I2	0.82	0.45	0.45	Cuando estoy bajo/a de ánimo, tiendo a pensar que, probablemente, la mayoría de la gente es más feliz que yo [When I'm feeling down I tend to feel like most other people are probably happier than I am]
I3	1	0.64	0.64	Cuando estoy pasando por un momento difícil, tiendo a pensar que para los demás esas cosas son más fáciles [When I'm really struggling I tend to feel like other people must be having an easier time of it].
I4	0.82	0.45	0.45	Cuando me equivoco en algo que es importante para mí, tiendo a sentirme solo en mi fracaso [When I fail at something that's important to me I tend to feel alone in my failure].

Table 2.
Content validity (Continuation).

M1	0.64	0.45	0.64	Cuando algo me disgusta trato de mantener mis emociones en equilibrio. [When something upsets me I try to keep my emotions in balance].
M2	1	1	1	Cuando me sucede algo doloroso trato de mantener una visión equilibrada de la situación [When something painful happens I try to take a balanced view of the situation]
M3	1	1	0.82	Cuando fallo en algo importante para mí, trato de ver las cosas con perspectiva. [When I fail at something important to me I try to keep things in perspective].
M4	0.64	0.82	0.82	Cuando me siento bajo/a de ánimo trato de prestarle atención a estos sentimientos con curiosidad y apertura de mente. [When I'm feeling down I try to approach my feelings with curiosity and openness].
OI1	0.82	1	1	Cuando me siento bajo/a de ánimo, tiendo a obsesionarme y fijarme en todo lo que está mal [When I'm feeling down I tend to obsess and fixate on everything that's wrong].
OI2	0.82	1	1	Cuando fallo en algo importante para mí, me consumen los sentimientos de incompetencia [When I fail at something important to me I become consumed by feelings of inadequacy]
OI3	0.82	0.82	0.82	Cuando algo me molesta me dejo llevar por mis sentimientos [When something upsets me I get carried away with my feelings]
OI4	0.82	0.64	0.64	Cuando sucede algo doloroso tiendo a ver la situación de una manera desproporcionada. [When something painful happens I tend to blow the incident out of proportion].

Note. R= Relevance, C = Coherence, CL = Clarity. In the last column, it is presented the modified items form García-Campayo et al., (2014), in gaps it is presented the original item form Neff (2003b).

Table 3.
Descriptive statistics.

Dimension	Items	Frequencies (%)					Mean	SD	Shape measurements		Homogeneity index
		1	2	3	4	5			Skewness	Kurtosis	
Self Kindness	SK1	9.8	20.7	23.4	29.0	16.9	3.22	1.23	-0.21	-0.98	0.71
	SK2	8.3	22.6	23.7	29.4	15.9	3.22	1.20	-0,17	-0.96	0.76
	SK3	9.6	18.1	25.9	29.4	16.9	3.26	1.21	-0.26	-0.86	0.74
	SK4	8.5	19.6	26.0	28.1	17.8	3.27	1.21	-0.22	-0.90	0.62
	SK5	3.2	20.2	26.9	33.8	15.8	3.39	1.07	-0.21	-0.80	0.60
Self Judgment	SJ1	11.7	26.9	21.6	25.3	14.5	3.04	1.25	0.01	-1.09	0.63
	SJ2	10.9	26.6	22,5	24.1	15.8	3.07	1.25	0.01	-1.09	0.65
	SJ3	17.3	39.6	24.5	20.1	8.3	2.72	1.20	0.23	-0.91	0.66
	SJ4	14.9	26.6	22,8	23.3	12.4	2.92	1.26	0.08	-1.07	0.69
	SJ5	26.0	27.6	20.8	16.6	9.1	2.55	1.28	0.40	-0.95	0.50
Common Humanity	CH1	9.1	16.2	26.9	29.2	18.6	3.32	1.21	-0.31	-0.80	0.44
	CH2	18.0	22.6	20.5	24.1	14.8	2.95	1.33	0.01	-1.20	0.62
	CH3	21.7	25.8	22.6	20.8	9.1	2.70	1.27	0.21	-1.05	0.66
	CH4	9.2	17.8	24,4	25.7	22.9	3.35	1.26	-0.28	-0.97	0.52
Isolation	I1	25.6	23.6	18.6	18.8	13.4	2.71	1.38	0.25	-1.21	0.58
	I2	35.6	21.0	14.9	14.8	13.7	2.50	1.44	0.49	-1.17	0.69
	I3	31.2	25.3	17.4	16.5	9,6	2.48	1.33	0.46	-1.02	0.62
	I4	18.5	21.7	16.9	22.4	20.5	3.05	1.41	-0.04	-1.33	0.61
Mindfulness	M1	5.5	12.4	25.2	34.0	23.0	3.57	1.33	-0.51	-0.48	0.55
	M2	4.4	12.8	27.4	33.0	22.4	3.56	1.10	-0.44	-0.51	0.65
	M3	4.5	14.6	26.1	34.0	20.8	3.52	1.10	-0.41	-0.59	0.66
	M4	9.6	16.8	22.9	32.2	18.5	3.33	1.23	-0.36	-0.84	0.50
Over Identification	OI1	21.3	29.2	19.2	15.7	14.6	2.73	1.35	0.33	-1.09	0.60
	OI2	21.8	23.4	18.8	18.8	17.2	2.86	1.40	0.15	-1.27	0.69
	OI3	16.1	25.8	24.9	21.6	11.6	2.87	1.25	0.11	-1.01	0.54
	OI4	28.5	27.8	21.3	12.8	9.6	2.47	1.29	0.52	-0.80	0.69

In order to execute the confirmatory models, firstly, a Shapiro-Francia normality test was made to choose the adequate estimator. All items had an abnormal distribution ($p<0.05$); thus it was chosen the Weighted least squares with mean and variance adjusted estimator (WLSMV). This method offers a more robust estimation of the typical errors, chi-square mean and variance (Lloret-Segura et al., 2014). Also, this estimator has shown advantages compared to Maximum Likelihood (Lei, 2009), especially when the data are categorical (Liang & Yang, 2014; Suh, 2015). Additionally, in the bifactor ESEM model, a Target Rotation was used (Reise et al., 2010). The cutoff values used to accept the fit of all models were (Hu & Bentler, 1999; Kline, 2011; Xia & Yang, 2019): CFI ≥ 0.95, TLI ≥ 0.95, RMSEA ≤ 0.06, SRMR ≤ 0.08. Table 4 shows the results of the seven models tested.

The model with the best goodness fit was the bifactor ESEM model. In Figure 1, it can be seen the graphical representation of this model. The 6-factor model had a poor fit; the rest of the models did not fit or not converge, as happened to the bifactor model with two general factors.

Table 4.
Confirmatory models tested.

Models	Indices	χ^2	df	CFI	TLI	RMSEA	SRMR
1	3-factor model	5671.91	296	0.70	0.67	0.16	0.13
2	6-factor model	1438.54	284	0.94	0.92	0.07	0.06
3	1-higher level factor.	18188.95	325	0.87	0.86	0.10	0.09
4	2-higher level factor model.	1714.59	292	0.92	0.91	0.08	0.07
5	Bifactor model One-general factor.	2188.171	273	0.89	0.87	0.10	0.08
6	Bifactor model Two-general factors			Model did not converged			
7	Bifactor ESEM	156.40	164	1.00	1.00	0.00	0.01

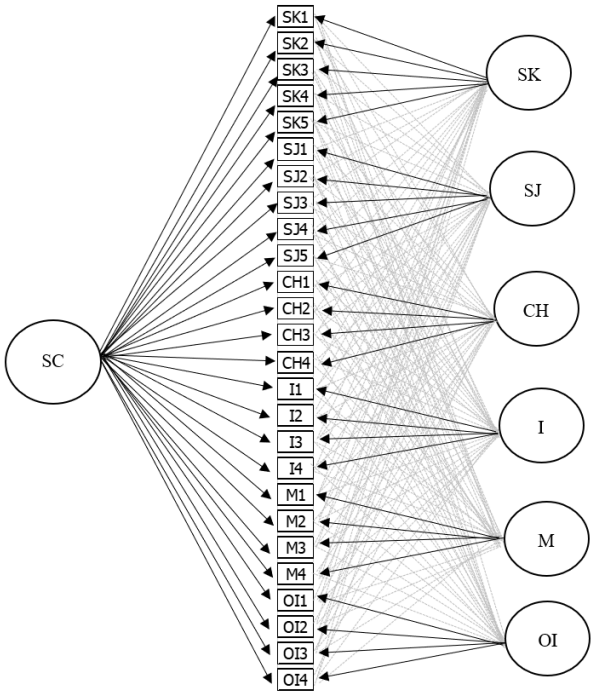

Figure 1.
Representation of the ESEM model.
Note. SK = Self -Kindness, SJ= Self Judgment, CH = Common Humanity, I= Isolation, M=Mindfulness, OI = Over Identification, SC = Self-Compassion

Referring to the factor loadings, Table 5 shows all item loads corresponding to the SC dimension (SK, SJ, CH, I, M, OI) and the general factor (SC). All loadings were superior to 0.45 (Min=0.49, Max=0.67). The mean of each dimensions' loadings is: SK = 0.59, SJ=0.56, CH=0.58, 0.57, M=0.61, OI=0.57. This table also includes some internal consistency indices such as Cronbach's Alpha (α), McDonald's Omega (ω), Construct Reliability (H) and the Factor Determinacy (FD). Many of these indices were reported to be coherent with the categorical nature of the data (Elosua & Zumbo, 2008).

Corresponding to α and ω for all dimensions and total scores were obtained good values. A ω_H superior to 0.80 was obtained only in the general factor, indicating that the proportion of the variance is due mainly to the general factor (SC) (Reise et al., 2010; Rodriguez et al., 2015). As complementary indices, the H and FD were calculated; the first indicates that SC is a factor well defined by its indicators (Rodriguez et al., 2015). On the other hand, the second index shows if the factor scores are good estimates of individual differences given a specific factor; this means that SC is a good estimate of individual differences (Grice, 2001; Rodriguez et al., 2015).

Table 5.
Standardized Factor Loadings for the ESEM solution with its corresponding internal consistency indices.

Items	Dimensions factor loadings						
	SK	SJ	CH	I	M	OI	SC
SK1	0.56						0.62
SK2	0.59						0.57
SK3	0.64						0.54
SK4	0.59						0.58
SK5	0.59						0.55
SJ1		0.55					0.61
SJ2		0.51					0.61
SJ3		0.57					0.62
SJ4		0.58					0.57
SJ5		0.62					0.56
CH1			0.56				0.62
CH2			0.55				0.64
CH3			0.62				0.60
CH4			0.59				0.61
I1				0.58			0.57
I2				0.66			0.50
I3				0.49			0.66
I4				0.57			0.56
M1					0.61		0.56
M2					0.57		0.62
M3					0.59		0.58
M4					0.67		0.52
OI1						0.57	0.55
OI2						0.54	0.61
OI3						0.59	0.55
OI4						0.59	0.60
α	0.87	0.83	0.76	0.81	0.85	0.81	0.70
ω	0.90	0.85	0.81	0.85	0.85	0.85	0.93
ω_H	0.03	0.03	0.02	0.02	0.02	0.02	0.83
H	0.73	0.71	0.67	0.68	0.71	0.67	0.93
FD	0.71	0.74	0.59	0.58	0.63	0.57	0.96

Note. SK = Self -Kindness, SJ= Self Judgment, CH = Common Humanity, I= Isolation, M=Mindfulness, OI =Over Identification, SC = Self-Compassion, α = Cronbach´s Alpha, ω = Macdonald´s Omega hierarchical, ω_H, H = Construct Reliability, FD = Factor Determinacy.

Discussion

This study aimed to obtain initial psychometric evidence of the SCS in a Colombian Sample. The content validity results gave valuable information to maintain or modify the items proposed by García – Campayo et al. (2014). As it was noted, items SJ3, I2, I4 and M1 had low punctuation taking into account the number of judges (CVI < 0.64) (Tristán-López, 2008). Considering that these items did not have an abnormal descriptive measure value, had adequate loadings and according to Neff (2003b), are theoretically indispensable to the SC model, there is not enough evidence to support their suppression. Instead, it is suggested to revise those items in future research and the dimensions to which they belong; because most of these items came from the negative dimensions (SJ and I), dimensions that have not been defined explicitly by the author. The results of the content validity evidence could be a reflection at a certain point of this theoretical gap.

The results of the descriptive psychometric analysis were congruent with the literature recommendations, which were found mean values near the midpoint of the scale (M = 3) and standard deviations above one (SD >1) (Carretero – Dios & Pérez, 2005). Regarding kurtosis and symmetry, no values were found that could reflect any extreme abnormality: skew > |2| and kurtosis > |7| (Fabrigar et al., 1999). All homogeneity indices were above 0.35, a cutoff value suggested by the revision made by Blum & Auné (2013) when Pearson correlations are used to determine this index.

Corresponding to the models tested, the outcome of the 3-factor model is similar to the one obtained in the original study by Neff (2003b), in which it was confirmed that three dimensions do not explain SC. Relating to the higher level models, the one-higher level model did not fit (CFI=0.87, TLI=0.86, RMSEA=0.10, SRMR=0.09). In the same line, the 2-higher factor model had a poor fit (CFI=0.92, TLI = 0.91, RMSEA=0.08, SRMR= 0.07), even though this last model has been proposed as an alternative model to understand SC (Kumlander et al., 2018; López et al., 2015). According to Neff (2016a), theoretically, Self-Compassion's dimensions do not mediate between the SC and self-compassionate behavior, so this could theoretically explain why these models did not have an acceptable goodness fit.

Referring to the bifactor models, the bifactor model with two general factors did not converge, and the results of the bifactor model with one general factor (CFI = 0.89, TLI= 0.87, RMSEA=0.10, SRMR=0.08) are divergent from the results obtained by other authors (Coroiu et al., 2018; De Souza & Hutz, 2016; Kotsou & Leys, 2016; Neff et al., 2017; Neff et al., 2019). The above could be attributed to the restrictive quality of the bifactor CFA, which functions better when a correlated factor model and hierarchical model have fitted (Reise, 2012). In this study, the higher-level models did not fit, and the 6-factor model had a poor adjustment; thus, the lack of fit for the bifactor CFA proposals is understandable.

Corresponding to the traditional 6-factor model, it had a poor fit (CFI = 9.35, TLI= 0.93, RMSEA= 0.07, SRMR= 0.06). This result is convergent with the results of other studies (Deniz et al., 2008; López et al., 2015; Williams et al., 2014). However, this is the model that has been proved by most of the investigations (Arimitsu, 2014; Azizi et al., 2013; Cunha et al., 2016; Hupfeld & Ruffieux, 2011; Kotsou & Leys, 2016; Neff, 2003b, Neff et al., 2017; Neff et al., 2019; Neff et al., 2021; Petrocchi et al., 2013; Rodriguez de Behrends et al., 2021; Tóth-Király et al., 2017).

This last result can be attributed to the same reasons other researchers had to explain their maladjustment of the models tested, which is related to the influence of the social and cultural environment (Araya-Véliz et al., 2017). In addition, from a technical point of view, these results could be originated from the lack of influence of the general factor and the less restrictive conditions that a bifactor ESEM model can offer, a model that is known to reflect the complete source of construct dimensionality (Assis et al., 2017; Neff et al., 2019; Tóth-Király et al.,2017).

On the other hand, the model with the best goodness fit was the bifactor ESEM model (CFI = 1, TLI= 1, RMSEA= 0.00, SRMR= 0.01); this result is coherent with the works of Tóth-Király et al. (2017) Neff et al., (2019) and Neff et al. (2021). The ESEM model behalf of having optimal fit, it had adequate internal consistency indicators (α=0.70, ω = 0.93, ω_H = 0.83, H=093, FD=0.96). These results are useful to support the existence of a general factor contemplated in the bifactor ESEM, as well as they are arguments to keep understanding the SCS as a total score.

The ω_H had a value of 0.83, indicating that the proportion of variance is primarily due to the general factor; this score is over the suggested to justify a total score (Reise et al., 2013). Following this reasoning, the FD and H had low values in all dimensions, which shows that the dimensions on their own cannot be a good estimate of individual differences or are not well defined by their indicators. Thus, they should be considered as a hole in the SC model to achieve a technical adjustment and respect the original framework in which SC is not a unitary construct (Neff et al., 2019).

Related to the usage of inversed items in the SCS, this is a common practice in the literature, taking into account that they are many other constructs that include directed and inverted items to asses one psychological concept, such as personality and attitudes (Ferrando & Lorenzo-Seva, 2010). However, it is important to mention that this paper's intention is not to resolve the debate about using or not the SCS as a total score. Behalf, it is recommended to future works to adhere more evidence related to the statistical management of inversed items, such as differential item functioning studies (Gómez-Benito et al., 2018) or ITR models that could help to examine the unidimensionality of items, especially the ones related to the negative dimensions.

As an essential suggestion, some limitations must be considered when interpreting the results. This study focused only on studying the factor structure of the SCS, not having any other variables available to obtain validity evidence based on the relationship with other variables. Also, the non-probabilistic sampling and the sample size could have influenced the study's findings. However, the present research differed from other results in other Latin-American samples (Araya et al., 2017). This was the first study to report a content validity evidence and to obtain a sample size more prominent than 350 Latin-American subjects.

As a final consideration, an initial psychometric evidence of the SCS in a Colombian sample was found, which is reflected in the fit of the bifactor ESEM model and its respective consistency indices. Also, a content-based validity was obtained, which helped adapt the items proposed by García-Campayo et al. (2014). This evidence can justify the interpretation of the SC's six dimensions and the usage of the SCS in Colombia (with its limitations). However, more evidence is needed to justify the usage of the SCS in Colombia entirely.

Funding

This research has not received specific aid from public sector agencies, the commercial sector or non-profit entities.

References

Alabdulaziz, H., Alquwez, N., Almazan, J. U., Albougami, A., Alshammari, F., & Cruz, J. P. (2020). The Self-Compassion Scale Arabic version for baccalaureate nursing students: A validation study. *Nurse Education Today, 89*, Article YNEDT 104420. https://dx.doi.org/10.1016/j.nedt.2020.104420

Assis, C. M., Almeida, L. S., & Núñez, J. C. (2017). Rationale and applicability of exploratory structural equation modeling (ESEM) in psychoeducational contexts. *Psicothema. 29*(3), 396-401. https://doi.org/10.7334/psicothema2016.369

Arcila, S. (2020). *Efecto de un protocolo grupal breve basado en mindful self-compassion (MSC) sobre la autocompasión, autocrítica, autoeficacia, estrés y rumiación en practicantes de psicología clínica* [Effect of a brief group protocol based on mindful self-compassion (MSC) on self-compassion, self-criticism, self-efficacy, stress and rumination in clinical psychology practitioners] [Bachelor thesis, Konrad Lorenz University]. KLU Repository. https://repositorio.konradlorenz.edu.co/handle/001/2359

Ardela-Cabrera, C. & Olivas, L. O., (2019). Escala de Autocompasión (EAC): evidencias psicométricas iniciales en adolescentes de Lima, [Self Compassion scale (SCS): initial psychometric evidence in adolescents from Lima]. *PsiqueMag, 8*(2), 77-95. https://doi.org/10.18050/psiquemag.v8i2.198

Araya-Véliz, C., Moncada, L., Fauré, J., Mera, L., Musa, G., Cerda, J., Fernández, M., Araya, P. Becerra, M., Castillo, R., Concha, L. F., & Brito, G. (2017). Adaptation and preliminary validation of the Self-Compassion Scale in a Chilean context. *Revista Latinoamericana de Psicología Positiva, 3*(1), 46–59. https://psycap.cl/wp-content/uploads/2017/05/Adaptation-and-Preliminary-Validation-of-the-Self-Compassion-Scale-in-a-Chilean-Context.pdf

Arimitsu, K. (2014). Development and validation of the Japanese version of the Self-Compassion Scale. *Shinrigaku Kenkyu, 85*(1), 50–59. https://doi.org/10.4992/jjpsy.85.50

Azizi, A., Mohammadkhani, P., Lotfi, S., & Bahramkhani, M. (2013). The validity and reliability of the Iranian version of the Self-Compassion Scale. *Practice in Clinical Psychology, 1*(3), 149-155. https://jpcp.uswr.ac.ir/article-1-83-en.pdf

Blum, D., Auné, S., Ahumada, C., Galibert, M. S., & Attorresi, H. (2013). Criterios para la eliminación de ítems de un Test de Analogías Figurales. Summa psicológica UST, 10(2), 49-56. https://doi.org/10.18774/448x.2013.10.140

Carretero-Dios, H., & Pérez, C. (2005). Normas para el desarrollo y revisión de estudios instrumentales. *International Journal of clinical and health psychology, 5*(3), 521-551. https://www.redalyc.org/articulo.oa?id=33705307

Coroiu, A., Kwakkenbos, L., Moran, C., Thombs, B., Albani, C., Bourkas, S., Zenger, M., Brahler, E., & Körner, A. (2018). Structural validation of the Self-Compassion Scale with a German general population sample. *PLoS ONE, 13*(2), 1–17. https://dx.doi.org/10.1371/journal.pone.0190771

Costa, J., Marôco, J., Pinto-Gouveia, J., Ferreira, C., & Castilho, P. (2016). Validation of the psychometric properties of the Self-Compassion Scale. Testing the factorial validity and factorial invariance of the measure among borderline personality disorder, anxiety disorder, eating disorder and general populations. *Clinical Psychology and Psychotherapy, 23*(5), 460–468. https://dx.doi.org/10.1002/cpp.1974

Cunha, M., Xavier, A., & Castilho, P. (2016). Understanding Self-compassion in adolescents: Validation study of the Self-Compassion Scale. *Personality and Individual Differences, 93*, 56–62. https://dx.doi.org/10.1016/j.paid.2015.09.023

Deniz, M., Kesici, Ş., & Sümer, A. S. (2008). The validity and reliability of the Turkish version of the Self-Compassion Scale. *Social Behavior and Personality, 36*(9), 1151-1160. https://dx.doi.org/10.2224/sbp.2008.36.9.1151

De Souza, L. K., & Hutz, C. S. (2016). Adaptation of the Self-compassion scale for use in Brazil: Evidence of construct validity. *Temas Em Psicologia, 24*(1), 159–172. https://dx.doi.org/10.9788/TP2016.1-11

Elosua, P., y Zumbo, B. (2008). Coeficientes de fiabilidad para escalas de respuesta categórica ordenada. *Psicothema, 20* (4), 896-901. https://www.redalyc.org/pdf/727/72720458.pdf

Fabrigar, L., Wegener, D., MacCallum, R. & Strahan, E. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods, 4*(3) 272 -299. https://dx.doi.org/10.1037/1082-989X.4.3.272

Ferrando, P. J. (2021). Seven decades of factor analysis: From Yela to the present day. Psicothema. 33(3), 378-385. https://doi:10.7334/psicothema2021.24

Ferrando, P. J., & Lorenzo-Seva, U. (2010). Acquiescence as a source of bias and model and person misfit: A theoretical and empirical analysis. *British Journal of Mathematical and Statistical Psychology, 63*(2), 427-448. https://doi.org/10.1348/000711009X470740.

Ferrando, P. J., Lorenzo-Seva, U., Hernández-Dorado, A., & Muñiz, J. (2022). Decálogo para el Análisis Factorial de los Ítems de un Test [Decalogue for Factor Analysis of Test Items]. *Psicothema, 34*(1), https://doi.org/10.7334/psicothema2021.456

García-Campayo, J., Navarro-Gil, M., Andrés, E., Montero-Marin, J., López-Artal, L., & Demarzo, M. M. P. (2014). Validation of the Spanish versions of the long (26 items) and short (12 items) forms of the Self-Compassion Scale (SCS). *Health and Quality of Life Outcomes, 12*(4), 25–26. https://doi.org/10.1186/1477-7525-12-4

Germer, C. K., & Neff, K. D. (2013). Self-compassion in clinical practice. *Journal of Clinical Psychology, 69*(8), 856–867. https://dx.doi.org/10.1002/jclp.22021

Gilbert, P. (2014). The origins and nature of compassion focused therapy. *British Journal of Clinical Psychology, 53*(1), 6–41. https://dx.doi.org/10.1111/bjc.12043

Goetz, J. L., Keltner, D., & Simon-Thomas, E. (2010). Compassion: An evolutionary analysis and empirical review. *Psychological Bulletin, 136*(3), 351–374. https://dx.doi.org/10.1037/a0018807

González, J. (2017). *Aplicación de estrategias de un programa de entrenamiento en autocompasión consciente en el caso de un padre con déficit en comunicación afectiva hacia su hijo* [Application of strategies of a conscious self-compassion training program in the case of a father with a deficit in affective communication towards his son] [Bachelor thesis, University of Sabana]. US Campus Repository. https://intellectum.unisabana.edu.co/handle/10818/30678?show=full

Gómez-Benito, J., Sireci, S., Padilla, J. L., Hidalgo, M. D., y Benítez, I. (2018). Differential Item Functioning: Beyond validity evidence based on internal structure. *Psicothema, 30*(1), 104-109. https://doi.org/10.7334/psicothema2017.183

Grice, J. W. (2001). Computing and evaluating factor scores. *Psychological methods, 6*(4), 430 – 450. https://dx.doi.org/10.1037/1082-989X.6.4.430

Halamová, J., Kanovský, M., & Pacúchová, M. (2017). Self-compassion scale: IRT psychometric analysis, validation, and factor structure Slovak translation. *Psychologica Belgica, 57*(4), 190–209. https://dx.doi.org/10.5334/pb.398

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1–55. https://dx.doi.org/10.1080/10705519909540118

Hupfeld, J., & Ruffieux, N. (2011). Validierung einer deutschen version der self-compassion scale (SCS-D), [Validation of a German version of the Self-compassion scale]. *Zeitschrift Fur Klinische Psychologie Und Psychotherapie, 40*(2), 115–123. https://dx.doi.org/10.1026/1616-3443/a000088

Izquierdo Alfaro, I., Olea Díaz, J., & Abad García, F. J. (2014). Exploratory factor analysis in validation studies: Uses and recommendations. *Psicothema, 26*(3), 395-400. https://doi.org/10.7334/psicothema2013.349

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). Guilford Press.

Kotsou, I., & Leys, C. (2016). Self-Compassion Scale (SCS): Psychometric properties of the French translation and its relations with psychological well-being, affect and depression. *PLoS ONE, 11*(4), 1-11. https://dx.doi.org/10.1371/journal.pone.0152880

Kyriazos, T. A. (2018). Applied Psychometrics: Sample size and sample power considerations in Factor Analysis (EFA, CFA) and SEM in general. *Psychology, 9*(08), 2207-2230. https://doi.org/10.4236/psych.2018.98126

Kumlander, S., Lahtinen, O., Turunen, T., & Salmivalli, C. (2018). Two is more valid than one, but is six even better? The factor structure of the Self-Compassion Scale (SCS). *PLoS ONE, 13*(12), 1–23. https://dx.doi.org/10.1371/journal.pone.0207706

Lawshe C. H. (1975). A quantitative approach to content validity. *Personnel Psychology. 28*(4), 563- 575. https://dx.doi.org/10.1111/j.1744-6570.1975.tb01393.x

Lei, P. W. (2009). Evaluating estimation methods for ordinal data in structural equation modeling. *Quality and Quantity, 43*(3), 495-507. https://dx.doi.org/10.1007/s11135-007-9133-z

Liang, X., & Yang, Y. (2014). An evaluation of WLSMV and Bayesian methods for confirmatory factor analysis with categorical indicators. *International Journal of Quantitative Research in Education, 2*(1), 17-38. https://dx.doi.org/10.1504/IJQRE.2014.060972

Lloret-Segura, S., Ferreres-Traver, A., Hernández-Baeza, A., & Tomás-Marco, I. (2014). El análisis factorial exploratorio de los ítems: una guía práctica, revisada y actualizada [The exploratory factor analysis of the items: a practical guide, revised and updated.]. *Anales de Psicología, 30*(3), 1151-1169. https://dx.doi.org/10.6018/analesps.30.3.199361

López, A., Sanderman, R., Smink, A., Zhang, Y., Eric, V. S., Ranchor, A., & Schroevers, M. J. (2015). A reconsideration of the Self-Compassion Scale's total score: Self-Compassion versus self-criticism. *PLoS ONE, 10*(7), 1–12. https://dx.doi.org/10.1371/journal.pone.0132940

Mantzios, M., & Wilson, J. C. (2013). Psychometric properties of the Greek versions of the Self-Compassion and Mindful Attention and Awareness scales. *Mindfulness, 6*(1), 123–132. https://dx.doi.org/10.1007/s12671-013-0237-3

Muñiz, J. (1998). La medición de lo psicológico. *Psicothema, 10*(1), 1-21. https://reunido.uniovi.es/index.php/PST/article/view/7442

Muñiz, J. (2010). Test Theories: Classical Theory and Item Response Theory. *Papeles Del Psicólogo, 31*(1), 57–66. https://www.papelesdelpsicologo.es/pdf/1796.pdf

Muñiz, J., & Fonseca-Pedrero, E. (2019). Diez pasos para la construcción de un test [Ten steps to make a test]. *Psicothema, 31*(1), 7-16. https://doi.org/10.7334/psicothema2018.291

Muñiz, J., Elosua, P., & Hambleton, R. K. (2013). Directrices para la traducción y adaptación de los tests: segunda edición [Guidelines for the translation and adaptation of tests: second edition]. *Psicothema, 25*(2), 151-157. https://doi.org/10.7334/psicothema2013.24

Muris, P. (2016). A Protective Factor against Mental Health Problems in Youths? A Critical Note on the Assessment of Self-Compassion. *Journal of Child and Family Studies, 25*(5), 1461–1465. https://dx.doi.org/10.1007/s10826-015-0315-3

Muris, P., & Petrocchi, N. (2017). Protection or vulnerability? A meta-analysis of the relations between the positive and negative Components of Self-Compassion and psychopathology. *Clinical Psychology and Psychotherapy, 24*(2), 373-383. https://dx.doi.org/10.1002/cpp.2005

Muris, P., van den Broek, M., Otgaar, H., Oudenhoven, I., & Lennartz, J. (2018). Good and bad sides of Self-Compassion: A face validity check of the Self-Compassion Scale and an Investigation of its relations to coping and emotional symptoms in non-clinical adolescents. *Journal of Child and Family Studies, 27*(8), 2411–2421. https://dx.doi.org/10.1007/s10826-018-1099-z

Neff, K. D. (2003a). Self-Compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity, 2*(2), 85-101. https://dx.doi.org/10.1080/15298860309032

Neff, K. D. (2003b). The development and validation of a scale to measure Self-compassion. *Self and identity, 2*(3), 223-250. https://doi.org/10.1080/15298860309027

Neff, K. D. (2016a). Does Self-Compassion entail reduce Self-Judgment, Isolation, and Over-Identification? A Response to Muris, Otgaar, and Petrocchi (2016). *Mindfulness, 7*(3), 791–797. https://dx.doi.org/10.1007/s12671-016-0531-y

Neff, K. D. (2016b). The Self-Compassion Scale is a valid and theoretically coherent measure of Self-Compassion. *Mindfulness, 7*(1), 264–274. https://dx.doi.org/10.1007/s12671-015-0479-3

Neff, K. D., Bluth, K., Tóth-Király, I., Davidson, O., Knox, M. C., Williamson, Z., & Costigan, A. (2021). Development and validation of the Self-Compassion scale for Youth. *Journal of personality assessment, 103*(1), 92-105. https://doi.org/10.1080/00223891.2020.1729774

Neff, K., Hsieh, Y., & Dejitterat, K. (2005). Self-compassion, achievement goals, and coping with academic failure. *Self and Identity, 4*(3), 263–287. https://dx.doi.org/10.1080/13576500444000317

Neff, K. D., & McGehee, P. (2010). Self-compassion and psychological resilience among adolescents and young adults. *Self and Identity, 9*(3), 225–240. https://dx.doi.org/10.1080/15298860902979307

Neff, K. D., & Pommier, E. (2013). The relationship between Self-compassion and other-focused concern among college undergraduates, community adults, and practicing meditators. *Self and Identity, 12*(2), 160–176. https://dx.doi.org/10.1080/15298868.2011.649546

Neff, K. D., Tóth-Király, I., & Colosimo, K. (2018). Self-compassion is best measured as a global construct and is overlapping with but distinct from neuroticism: A response to Pfattheicher, Geiger, Hartung, Weiss, and Schindler (2017). *European Journal of Personality, 32*(4), 371–392. https://dx.doi.org/10.1002/per.2148

Neff, K. D., Whittaker, T. A., & Karl, A. (2017). Examining the factor structure of the Self-Compassion scale in four distinct populations: Is the use of a total scale score justified? *Journal of Personality Assessment, 99*(6), 596–607. https://dx.doi.org/10.1080/00223891.2016.1269334

Neff, K. D., Tóth-Király, I., Yarnell, L. M., Arimitsu, K., Castilho, P., Ghorbani, N., Guo, H. X., Hirsch, J. K., Hupfeld, J., Hutz, C. S., Kotsou, I., Lee, W. K., Montero-Marin, J., Sirois, F. M., De Souza, L. K., Svendsen, J. L., Wilkinson, R. B., & Mantzios, M. (2019). Examining the factor structure of the Self-Compassion Scale in 20 diverse samples: Support for use of a total score and six subscale scores. *Psychological Assessment,31*(1), 27–45. https://dx.doi.org/10.1037/pas0000629

Pastorelli, J & Gargurevich, R. (2018). Propiedades psicométricas de la escala de autocompasión en estudiantes de medicina de Lima, [Psychometric properties of the scale of Self-compassion in medical students of Lime]. *Interamerican Journal of Psychology, 52*(2), 249–264. https://doi.org/10.30849/rip/ijp.v52i2.504

Pérez, L.B. & Trujillo, L. F. (2018). *Efectividad de un programa de autocompasión basado en ACT en un contexto de educación inclusiva* [Effectiveness of an ACT-based self-compassion program in an inclusive education context]. [Bachelor thesis, Unimuto's University]. UU Repository. https://repository.uniminuto.edu/handle/10656/6967

Petrocchi, N., Ottaviani, C., & Couyoumdjian, A. (2014). Dimensionality of self-compassion: Translation and construct validation of the Self-compassion scale in an Italian sample. *Journal of Mental Health, 23*(2), 72–77. https://dx.doi.org/10.3109/09638237.2013.841869

Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the self-compassion scale. *Clinical psychology & psychotherapy, 18*(3), 250-255. https://dx.doi.org/10.1002/cpp.702

RStudio Team (2022). RStudio: Integrated development environment for R. RStudio, PBC, Boston, MA URL https://www.rstudio.com/

Reise, S. P., Moore, T. M., & Haviland, M. G. (2010). Bifactor models and rotations: Exploring the extent to which multidimensional data yield univocal scale scores. *Journal of personality assessment, 92*(6), 544-559. https://dx.doi.org/10.1080/00223891.2010.496477

Reise, S. P. (2012). The rediscovery of bifactor measurement models. *Multivariate Behavioral Research, 47*, 667–696. https://doi.org/10.1080/00273171.2012.715555.

Reise, S. P., Bonifay, W. E., & Haviland, M. G. (2013). Scoring and modeling psychological measures in the presence of multidimensionality. *Journal of Personality Assessment, 95*(2), 129–140. https://dx.doi.org/10.1080/00223891.2012.725437

Rodriguez, A., Reise, S. P., & Haviland, M. G. (2015). Applying bifactor statistical indices in the evaluation of psychological measures. *Journal of personality assessment, 98*(3), 223-237. https://dx.doi.org/10.1080/00223891.2015.1089249

Rodriguez de Behrends, M., Eidman, L. & Mántaras, F. (2021). Estudio de las propiedades psicométricas de la Escalas de Autocompasión (EAC) en una muestra de profesionales de la salud mental en Argentina, [Study of the psychometric properties of the Self-Compassion Scales (EAC) in a sample of mental health professionals in Argentina]. *Revista de Psicología, 17*(34), 21-34. https://doi.org/10.46553/RPSI.17.34.2021.p21-34

Sireci, S., y Faulkner-Bond, M. (2014). Validity evidence based on test content. *Psicothema, 26*(1), 100-107. https://doi.org/10.7334/psicothema2013.256

Suárez-Álvarez, J., Pedrosa, I., Lozano, L. M., García Cueto, E., Cuesta, M., & Muñiz, J. (2018). Using reversed items in Likert scales: A questionable practice. *Psicothema, 30*(2), 149-158. https://doi.org/10.7334/psicothema2018.33

Suh, Y. (2015). The Performance of Maximum Likelihood and Weighted Least Square Mean and Variance Adjusted Estimators in Testing Differential Item Functioning with Nonnormal Trait Distributions. *Structural Equation Modeling: A Multidisciplinary Journal, 22*(4), 568–580. https://doi.org/10.1080/10705511.2014.937669

Tristán-López, A. (2008). Modificación al modelo de Lawshe para el dictamen cuantitativo de la validez de contenido de un instrumento objetivo. *Avances en medición, 6*(1), 37-48. https://www.humanas.unal.edu.co/lab_psicometria/application/files/9716/0463/3548/VOL_6._Articulo4_Indice_de_validez_de_contenido_37-48.pdf

Tóth-Király, I., Bőthe, B., & Orosz, G. (2017). Exploratory Structural Equation Modeling Analysis of the Self-Compassion Scale. *Mindfulness, 8*(4), 881–892. https://dx.doi.org/10.1007/s12671-016-0662-1

Vallejo-Medina, P., Gómez-Lugo, M., Marchal-Bertrand, L., Saavedra-Roa, A., Soler, F., & Morales, A. (2017). Developing guidelines for adapting questionnaires into the same language in another culture. *Terapia psicológica, 35*(2), 181-194. https://dx.doi.org/10.4067/s0718-48082017000200159

Williams, M. J., Dalgleish, T., Karl, A., & Kuyken, W. (2014). Examining the factor structures of the five-facet mindfulness questionnaire and the Self-compassion scale. *Psychological Assessment, 26*(2), 407–418. https://dx.doi.org/10.1037/a0035566

Xia, Y., & Yang, Y. (2019). RMSEA, CFI, and TLI in structural equation modeling with ordered categorical data: The story they tell depends on the estimation methods. *Behavior research methods, 51*(1), 409-428. https://doi.org/10.3758/s13428-018-1055-2

Zeng, X., Wei, J., Oei, T. P., & Liu, X. (2016). The self-compassion scale is not validated in a Buddhist sample. *Journal of religion and health, 55*(6), 1996-2009. https://doi.org/10.1007/s10943-016-0205-z