Psychometric Properties of the Self-Compassion Scale on Saudi University Students

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Abstract

This study aimed to construct and validate a Saudi version of the Self-Compassion Scale (SCS). The sample included (438) students at King Saud University in three colleges; social science (humanities), science, medicine. The findings showed good validity and good reliability. The findings showed that the values of Alpha Cronbach's coefficients were large (greater than 0.7) . The values of Pearson's correlation coefficients were mostly large (greater than 0.7) and were confined between (0.530 – 0.854) in the relationship between each item degree and its subscale. Also, values of Pearson's relationship between each item degree and the degree on the scale as a whole were confined between (0.513- 0.794). Finally, confirmatory factor analysis on the self-compassion scale supported the same six-factor structure as found in the original version by Neff (2003); Self-kindness versus self-judgment, Common humanity versus isolation, Mindfulness versus over-identification. As a whole, good psychometric properties observed for the Saudi SCS version are assuring the strength of the current results.

Key words: self-compassion, validity, reliability, university students

الخصائص السيكومترية لمقياس التعاطف مع الذات لدى طلبة جامعة الملك سعود

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الملخص

هـدفت الدراسـة الحاليـة لفحـص الخـصائص الـسيكومترية لمقياس التعـاطف مـع الذات (نييف) وتقنينـه على البيئـة السعودية تحديداً طلبـة جامعـة الملك سعود بالرياض. تم تطبيـق المقياس علـى عينـة قوامهـا (٤٣٨) طالـب وطالبـة مـن التخصصات الإنسـانية، العلميـة والطبيـة. تم حسـاب الصدق والثبـات للمقياس عـن طريق ألـف كرونبـاخ والاتسـاق الـداخلي كمـا تم اسـتخدام التحليـل العامـلي التوكـيدي للتحقـق مـن العوامـل السـتة الأسـاسـية المكونـة للتعـاطف الـذاتي؛ اللطـف مـع الـذات مقابـل نقـد الـذات، الانسانية المشتركة مقابـل العزلـة، اليقظـة الذهنيـة مقابـل التوحـد المفـرط. وقـد أكـدت النتـائج العوامـل السـتة المكونة للمقياس كمـا أسـفرت عـن صدق وثبـات جيد للمقياس حيث بلـغ معامـل ثبـات ألـف كرونبـاخ (أعلـى مـن ٠,٧). كـذلك درجـة الاتساق الداخلي للمقياس (٠,٧) بينما تراوحت معاملات الارتباط مابين درجة كل فقـرة ودرجة البعد الذي تنتمي لـه مـابين (٠,٥٣٠ – ٠,٨٥٤) أيضا تراوحت معـاملات الارتبـاط بـين درجـة كـل فقـرة والدرجـة الكلية للمقياس (٠,٥١٣ – ٠,٧٩٤). هذه الدرجـة مـن الثبـات والصدق قد تكون مؤشر يتيح تطبيقه على مجموعات مماثلة لعينة الدراسة (طلبة الجامعة).

الكلمات المفتاحية: التعاطف مـع الذات، الصدق، الثبـات، طلبة الجامعة

Introduction

Self-compassion is one of the most important concepts in regard to an individual's relationship with its self. Indeed, the word compassion is usually defined as being compassioned towards others, feeling their pain, and being kind, and non-judgmental. Self-compassion is similar to the usual meaning of compassion, but in regard to one's own self, it involves how an individual treats its self, and is open to and moved by personal suffering, experiencing feelings of kindness toward oneself, nonjudgmental about weakness and failure experience and consider it as part of human common experience (Neff, 2003; Umphrey & Sherblom, 2018).

According to Neff (2003), self-compassion comprises three essential components which reflect negative attitudes towards oneself in comparison to positive attitudes: 1) the ability of self-kindness instead of self-judgment, 2) seeing personal experience as part of the human experience instead of separation, and isolation and 3) awareness of feelings and being balanced about it instead of over-identification with them. In more detail;

Self-kindness versus self-judgment reflects treating oneself kindly with caring, support, and patience towards undesirable traits. In contrast, in self-judgment, an individual treats oneself harshly and is so critical of it (Neff, 2003a, 2016).

Common humanity versus isolation reflects considering failure, suffering, and weakness as normal human experiences, and all individuals have been through it so everyone deserves compassion. However, self-compassion is different from self-pity. In self-pity, the individual tends to isolation from others; also, feels like the only one who suffers in the entire world (Goldstein & Kornfield 1987; Neff, 2003, Barnard & Curry, 2011).

Mindfulness versus over-identification reflects the awareness of troublesome feelings and thoughts and being conscious of them. So, they should accept these kinds of feelings and thoughts and maintain balanced emotions rather than be over-identified by these emotions and thoughts (Neff, 2003; Neff & Germer, 2013).

Neff (2003) developed the first scale of self-compassion (SCS) based on the previous components. The scale is self-reported and a Likert-type contains six factors of self-compassion, the first validation study of the SCS was conducted on undergraduate

students. Indeed, Neff has conducted a series of studies in order to validate the scale and examine the clarity and reliability. In general, findings confirm that the self-compassion scale has good construct validity. Neff (2003) found a significant positive correlation between emotional intelligence and life satisfaction, while the correlation between depression and anxiety was significantly negative. These findings may reflect the influence of self-compassion on well-being. Also, Aldhabei (2013) found that there is positive relationship between self-compassion and the healthy life style of university students. However, there was differences based on sex.

Previous research that examined the psychological construct of self-compassion also confirmed similar results to Neff's (2003), and it found a positive correlation between wellbeing, life satisfaction, and positive mental health (Neff 2007; Hollis-Walker & Colosimo, 2011). These findings reflect the importance of self-compassion and the scales that are used to measure it. The self-compassion could affect well-being negatively or positively.

The importance of the SCS highlights the necessity of adaption and validation of the scale in different cultures and languages. Also, there is no scale to measure self-compassion in Saudi university stuents. In fact, a number of studies have been conducted around the world in order to adapt the SCS. In a Dutch study, Raes, Pmmier, Neff, and Van Gucht (2011) investigated the short version of the SCS (12 items). The confirmative factor analysis confirms the same six factors of Neff's (2003), and the internal consistency (Cronbach's alpha > 0.86.in Portugal, Cunha, Xavier and Castilho (2016) analyzed the psychometric properties of the SCS and examined the six-factor structures on a sample of adolescents (aged 12 and 19 years old), and the results confirmed the six factors of the scale and revealed good internal reliability. In another culture, Petrocchi, Ottaviani, and Couyoumdjian (2013) evaluated the factorial structure and constructed validity of the SCS in 424 Italian. The confirmatory factor analysis confirmed the six factors. In the Arab world, Jundi and Tantawi (2020) examined the psychometric properties of Neff's self-compassion scale in Palestinian university students. The findings showed good psychometric properties.

In order to extend the adaption and validation of the self-compassion scale, the aim of the recent study is to evaluate the factorial structure and construct validation of the SCS in Saudi undergraduate students.

Methods

Participants

This descriptive study was conducted on 438 undergraduate students, Arabic-speaking at King Saud University (318 female, 120 male). Table (1) shows a description of the study's sample. Table (2) shows the description according to the interaction between gender and specialization. All respondents were recruited using university email by sending emails to all the undergraduate students at King Saud University explaining the study and asking for participants.

Table (1) sample of the study's description

Variables	Levels	N	Percentage %
Gender	Male	120	27.4%
	Female	318	72.6%
	Sum	438	100%
University specialization	Social science (Humanities)	236	53.9%
	Natural science	151	34.5%
	Health sciences	51	11.6%
	Sum	238	100%

Table (2) sample of the study's description according (Gender ´ specialization)

Variables		Social science		Natural science		Health sciences		Sum	
		N	%	N	%	N	%	N	%
				University specialization					
Gender	Female	191	43.6%	92	21.0%	35	8.0%	318	72.6%
	Male	45	10.3%	59	13.5%	16	3.6%	120	27.4%
	Sum	236	53.9%	151	34.5%	51	11.6%	438	100%

The main strengths of the study include a high participant response rate.   This meant that the studied population was representative of the target population. Data was collected in the context of the sample of this study. Data was used by undergraduate students completing an (online) survey in Apr. 2022. (N = 438). This data has been used to measure the validity and reliability of the Self-compassion scale.

Procedure

This The study gained ethical approval from king Saud University. A link to the study was sent to the students' emails by the research ethics committee at King Saud University. After reading a brief about the study and signing the consent form electronically, students filled out the questionnaire and submitted it.

Translation

The translation of the self-compassion scale was done through many phases. In the beginning, the scale was translated by the authors who are Arabic and English speaking, then was revised by a psychological researcher (Arabic and English speaking) and an expert translator to make sure of the accuracy of the translation. All the comments were discussed and the translation was edited based on the feedback. Back translation was done by a psychological researcher who speaks Arabic and English fluently.

Materials

The Self-compassion scale (Neff, 2003) includes 26 items, distributed on six subscales: Self-Kindness; Self-Judgment;

Common Humanity; Isolation; Mindfulness; Over-Identification. Participants answered the items according to a 5-point scale (1= Almost Never; 5= Almost Always) based on "how I typically act towards myself in difficult times". The original version showed an excellent internal consistency (α = .92), and the six subscales showed a good internal consistency (between .75 and .81).

Results

The validity of Self-Compassion Scale (SCS)

The current study used two tests to examine the validity of the scale of Self-Compassion. The first was the Internal Consistency Validity, and the second was Factorial validity. The Internal Consistency Validity depended on investigating the correlation between the grade of each item and the grade of its subscale. Also, the correlation between the grade of each item and the total grade of the tools will be calculated. Table (3) shows the Scale item distribution, and table (4) shows the results of the Pearson Correlation Coefficients as follows:

Table (3) item distribution of Self-compassion Scale

The subscale	Numbers of items	Type of the items	Item distribution
Self- kindness	5	Positive	5,12,19,23,26
Self-judgment	5	Negative	1,8,11,16,21
Common humanity	4	Positive	3,7,10,15
Isolation	4	Negative	4,13,18,25
Mindfulness	4	Positive	9,14,17, 22
Over – identification	4	Negative	2,6,20,24

Table (4) Pearson's Correlation Coefficients for the Internal Consistency Validity

No.	(r) Subscale	(r) Scale	No.	(r) Subscale	(r) Scale	No.	(r) Subscale	(r) Scale
Self- kindness			Self-judgment			Common humanity		
5	0.745**	0.513**	1	0.666**	0.632**	3	0.731**	0.630**
12	0.776**	0.606**	8	0.618**	0.542**	7	0.852**	0.794**
19	0.793**	0.697**	11	0.710**	0.636**	10	0.815**	0.539**
23	0.743**	0.615**	16	0.658**	0.590**	15	0.764**	0.756**
26	0.776**	0.667**	21	0.691**	0.676**			
Isolation			Mindfulness			Over – identification		
4	0.710**	0.540**	9	0.765**	0.561**	2	0.696**	0.611**
13	0.854**	0.596**	14	0.781**	0.521**	6	0.677**	0.571**
18	0.813**	0.519**	17	0.748**	0.566**	20	0.734**	0.591**

No.	(r) Subscale	(r) Scale	No.	(r) Subscale	(r) Scale	No.	(r) Subscale	(r) Scale
25	0.530**	0.521**	22	0.734**	0.517**	24	0.763**	0.609**

**$p < .05$.

Table (4) shows that the Pearson correlation coefficient was positive, which indicates that there is a positive correlation between the degree of each item and the degree of its subscale, and there is also a positive correlation between the score of each item and the total score on the self-compassion scale. It is also noted that the values of Pearson's correlation coefficients were mostly large (greater than 0.7) and were confined between (0.530 – 0.854) in the relationship between each item degree and its subscale. Also, values of Pearson's relationship between each item degree and the degree on the scale as a whole were confined between (0.513-0.794). This relationship indicates the consistent validity of the self-compassion scale.

Confirmatory Factor Analysis

The Confirmatory Factor Analysis (CFA) is one of the important practical applications of Structural equation modeling. In

statistics, confirmatory factor analysis is a special form of factor analysis used in social research to investigate the validity of the instruments. It is used to test whether measures of a construct are consistent with a researcher's understanding of the nature of that construct (or factor) (Rifenbark, et.al, 2021). As such, the objective of the confirmatory factor analysis is to test whether the data fits a hypothesized measurement model.   In this study, Confirmatory Factor Analysis is used to analyze the factorial structure of the scales while studying the internal validity of the scale structure. The confirmatory factor analysis was used in the current study due to its dependence on the self-compassion scale. This scale was used in various previous studies, and an exploratory factor analysis was conducted for it in those studies (for example, Neff,2003; Jundi & Tantawi, 2020). It was calculated in the (2ed) grade using AMOS V 25.0 at SPSS. Figure (1) shows the model of the Self-Compassion Scale as follows:
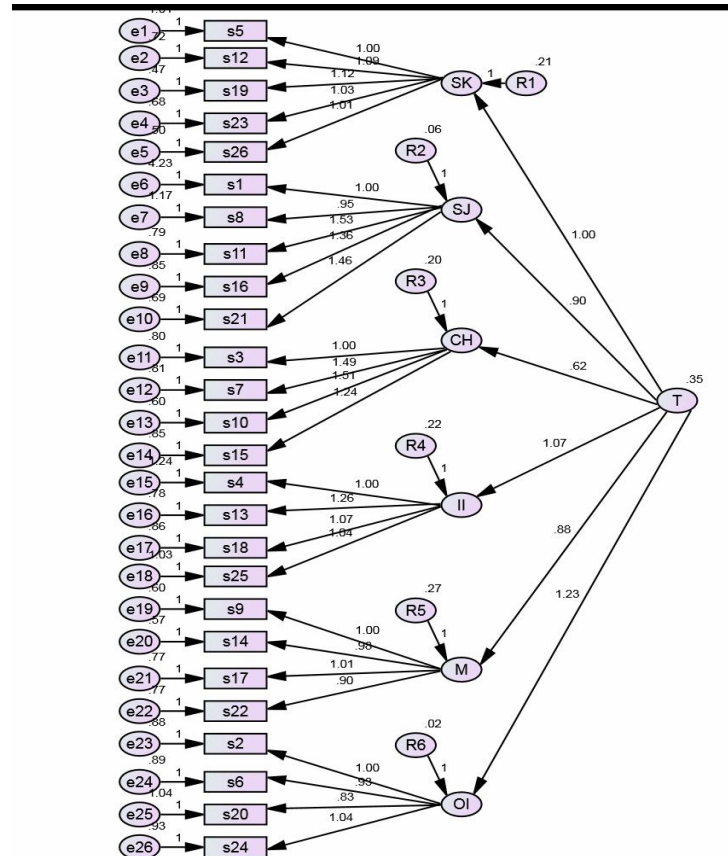
Figure (1) Self-Compassion Scale Model

Figure 1 shows the model on which the study was used to clarify the measure of the self-compassion scale. The model was approved accordingly to analyze the previous studies and literature in measuring Self-compassion. To check the confidence level in the

model, absolute fit indices were used. Absolute fit indices determine how well the prior model fits or reproduces the data. Absolute fit indices include the Chi-Squared test, RMSEA, GFI, AGFI, RMR, and SRMR. Table (5) shows the Goodness-of-Fit of the model of the self-compassion scale (Confirmatory Factor Analysis).

Table (5) Goodness-of-Fit of model (self-compassion scale)

Confirmatory Factor Analysis

The test	The value	The acceptance value
Chi-Square Test	**1333.692**	**Not significant**
………………	**351**	**Degree Freedom: df.**
Less than 5	**3.800**	**Chi-Square Test / df.**
0.90-0.95	**0.937**	**Goodness of Fit Index: GFI**
Less than or equal	**0.043**	**Root Mean Square Error**

0.05		of Approximation: RMSEA
Less than 0.1	0.029	Root means square residual: RMR
Less than 0.1	0.096	Standardized root means square residual: SRMR
From 0.0 to 1.0 Acceptance 0.9-1.0	0.94	Goodness of fit index (GFI)
0.0-1.0	0.0.93	The comparative fit index (CFI)
0.9-1.0	0.95	Tucker–Lewis's: TLI

Table (5) shows that the confirmatory factor analysis of the self-compassion scale was performed, too. The full model with 6 subscales includes 26 items fitted well with the data. Thus, it was possible to accept the theoretical model used by the current study and previous studies in the items and subscales of the self-compassion scale. These results indicate the factorial validity of the

item of the self-compassion scale and accept the model. The findings from this study overall confirmed previously reported results. The six-factor structure of the scale of 26 items might be the ideal factor structure

The reliability of scale

In the current study, the Alpha Cronbach coefficient was used to measure stability, and the results were as in the following table (6).

Table (6) Alpha Cronbach coefficient to measure the reliability

The value	Items	The subscale
0.822	5	Self- kindness
0.753	5	Self-judgment
0.742	4	Common humanity
0.747	4	Isolation
0.750	4	Mindfulness
0.866	4	Over – identification
0.921	26	The scale

Table (6) shows that the values of Alpha Cronbach's coefficients were large (greater than 0.7). This result indicates the reliability of the items of the measure of self-compassion in general. This result also indicates the reliability of items in each of the subscales of the self-compassion scale.

Finally, the measure of self-compassion is one of the important measures which shows through field experiments a high degree of validity in the scale as a whole, and in its six dimensions separately. It also shows the reliability of the scale. This result indicates the validity of using the scale in field application in Arabic studies on university students in the Kingdom of Saudi Arabia. Table (8) shows the self-compassion scale in the final form, linking the vocabulary, dimensions, and the scale as a whole.

Table (8) the self-compassion scale in the final form

Items	No.	Dimension
I try to be loving towards myself when I'm feeling emotional pain.	5	Self-kindness
When I'm going through a very hard time, I	12	

give myself the caring and tenderness I need.

I'm kind to myself when I'm experiencing suffering	19	
I'm tolerant of my own flaws and inadequacies.	23	
I try to be understanding and patient towards those aspects of my personality I don't like.	26	
I'm disapproving and judgmental about my own flaws and inadequacies.	1	Self-judgment
When times are really difficult, I tend to be tough on myself.	8	
I'm intolerant and impatient towards those aspects of my personality I don't like	11	
When I see aspects of myself that I don't like, I get down on myself.	16	

I can be a bit cold-hearted towards myself when I'm experiencing suffering.	21	
When things are going badly for me, I see the difficulties as part of life that everyone goes through	3	Common humanity
When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am.	7	
When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.	10	
I try to see my failings as part of the human condition.	15	
When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world	4	Isolation
When I'm feeling down, I tend to feel like	13	

most other people are probably happier than I am.

When I'm really struggling, I tend to feel like other people must be having an easier time of it.	18	
When I fail at something that's important to me, I tend to feel alone in my failure.	25	
When something upsets me, I try to keep my emotions in balance.	9	Mindfulness
When something painful happens, I try to take a balanced view of the situation	14	
When I fail at something important to me, I try to keep things in perspective.	17	
When I'm feeling down, I try to approach my feelings with curiosity and openness.	22	

When I'm feeling down, I tend to obsess and fixate on everything that's wrong.	2	Over – identification
When I fail at something important to me, I become consumed by feelings of inadequacy.	6	
When something upsets me, I get carried away with my feelings.	20	
When something painful happens, I tend to blow the incident out of proportion.	24	

Discussion

The purpose of the current study was to evaluate the factorial structure, reliability, and validity of the SCS (Neff, 2003) on a Saudi-undergraduate-student sample. To date, there are no adaptations of the SCS for Saudi samples, and there is only one study that examined the psychometric properties of this scale in the Arab world. The current study found that the psychometric properties of the scale are good. Confirmative factor analysis found that the six-factor model with the six dimensions and 26 items fitted well with the current data. The scale showed good Internal

consistency, the correlation between each item's score and its dimension score, and the total score of the scale was good.

Findings from CFAs showed that the six-factor model of the self-compassion scale proposed by Neff (2003) was confirmed and provided the best fit to the data and applied well to the Saudi sample. Similar to previous studies (Neff, 2003; Raes, Pmmier, Neff, and Van Gucht, 2011; Petrocchi, Ottaviani and Couyoumdjian, 2013; Jundi & Tantawi, 2020), the six-factor model has fitted the data adequately. The current study suggests that self-compassion in Saudi undergraduate students contains six basic dimensions; self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. However, this construct needs to be examined in different Saudi groups, as one of the limitations of this study is that the results are limited to the sample, and it needs more investigation before generalizing.

In line with previous studies (Raes, Pmmier, Neff, and Van Gucht, 2011; Jundi & Tantawi, 2020), this study showed good to excellent reliability, and good internal consistency, which suggests that the Saudi version of SCS is reliable and we can use it with

confidence.. One limitation of this study is that it did not test the internal consistency by comparing the scale with other scales such as; the social desirability scale and self-esteem scale. Therefore, future studies could consider examining the correlation between the SCS scale and other related scales in order to check the internal consistency in different ways.

Conclusion

As a whole, good psychometric properties observed for the Saudi SCS version are assuring the strength of the current results.

There are a number of recommendations based on the results of this study; first, examine the social-compassion scale on Saudi children and adolescents. Second, construct and validate a short version of SCS to be more practical to use with different groups. Third, examine the self-compassion of Saudi students in different universities. Fourth, raise awareness in university students about self–compassion and how it may affect their life in different aspects. Finally, use the scale to examine self-compassion and design an intervention program for those with low scores.

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