

Factorial Validation of the Self Compassion Scale

S 1: Summary of results from factor analytic studies assessing the structure of the Self-Compassion Scale

Study	Sample/size	Language	Analysis	Factors Tested	Reported Model fit Indices	Reported Model Fit Qualifiers <sup>+</sup>	Reported Criteria for Adequate Model Fit
Neff, 2003 [12]	University students (n=391)	English	CFA	1F	CFI=.84, NNFI=.80 (self-kindness and self-judgment items)	Poor fit	Not reported
				1F	CFI=.59, NNFI=.43 (common humanity and isolation items)	Poor fit	
				1F	CFI=.83, NNFI=.75 (mindfulness and over-identification items)	Poor fit	
				2F	CFI=.91, NNFI=.88 (self-kindness/self-judgment)	Adequate fit	
				2F	CFI=.99, NNFI=.99 (common humanity /isolation)	Adequate fit	
				2F	CFI=.96, NNFI=.94 (mindfulness/over-identification)	Adequate fit	
				6F Second order (6>1)	CFI=.91, NNFI=.90 CFI=.90, NNFI=.88	Adequate fit Acceptable fit	
Neff, 2017 [23]	Students (n=222)	English	CFA	1F	RMSEA=.09, SRMR=.08, CFI=.79, TLI=.77, AIC=14438.04	Poor fit	CFI, TLI ≥ .90; RMSEA, SRMR ≤ .10, AIC
				2F	RMSEA=.07, SRMR=.06, CFI=.88, TLI=.87, AIC=14191.63	Poor fit	
				6F	RMSEA=.05, SRMR=.05, CFI=.93, TLI=.92, AIC=14047.81	Adequate fit	
				Second order (6>1)	RMSEA=.07, SRMR=.07, CFI=.89, TLI=.88, AIC=.14153.43	Poor fit	
				Bifactor (6>1)	RMSEA=.06, SRMR=.06, CFI=.91, TLI=.89, AIC=14098.65, ω= .95, ωH=.90	Adequate fit	
	MTurk-recruited sample (N=1394)	English	CFA	1F	RMSEA=.10, SRMR=.08, CFI=.74, TLI=.72, AIC=100063.94	Poor fit	Omega and omega- h coefficients, for bifactor models [cutoff not reported]
				2F	RMSEA=.07, SRMR=.05, CFI=.88, TLI=.87, AIC=97446.58	Poor fit	
				6F	RMSEA=.05, SRMR=.04, CFI=.94, TLI=.93, AIC=96229.10	Adequate fit	
				Second order (6>1)	RMSEA=.06, SRMR=.08, CFI=.89 TLI=.88, AIC=97214.10	Poor fit	
				Bifactor (6>1)	RMSEA=.06, SRMR=.07, CFI=.91, TLI=.89, AIC=96823.54, ω= .95, ωH=.89	Adequate fit	
	Meditators (N=215)	English	CFA	1F	RMSEA=.11, SRMR=.09, CFI=.74, TLI=.72, AIC=12651.00	Poor fit	
				2F	RMSEA=.08, SRMR=.06, CFI=.87, TLI=.86, AIC=12258.42	Poor fit	
				6F	RMSEA=.06, SRMR=.06, CFI=.93, TLI=.92, AIC=12071.63	Adequate fit	
				Second order (6>1)	RMSEA=.07, SRMR=.08, CFI=.89, TLI=.88, AIC=12190.95	Poor fit	
				Bifactor (6>1)	RMSEA=.07, SRMR=.07, CFI=.91, TLI=.90, AIC=12115.61, ω= .96, ωH=.90	Adequate fit	
	Clinical sample (N=390)	English	CFA	1F		Poor fit	
2F				RMSEA=.11, SRMR=.10, CFI=.64, TLI=.61, AIC=28263.28	Poor fit		
6F				RMSEA=.08, SRMR=.07, CFI=.83, TLI=.82, AIC=27495.59	Poor fit		
Second order (6>1)				RMSEA=.07, SRMR=.06, CFI=.88, TLI=.87, AIC=27307.50	Poor fit		
Bifactor (6>1)				RMSEA=.09, SRMR=.10, CFI=.80, TLI=.78, AIC=27639.30 RMSEA=.08, SRMR=.09, CFI=.84, TLI=.81, AIC=27474.55, ω= .94, ωH=.85	Poor fit Poor fit		

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Hupfeld, 2011 [18]	Psychologically minded adults (n=561)	German	ESEM	2F 3F 6F	X <sup>2</sup> =1154.91, p<.01, RMSEA=.08, SRMR=.06, CFI=.82 X <sup>2</sup> =835.45, p<.01, RMSEA=.07, SRMR=.05, CFI=.88 X <sup>2</sup> =280.98, p<.01, RMSEA=.031, SRMR=.019, CFI=.98	Poor fit Acceptable fit Adequate fit	Not reported, but references provided [54]
			CFA	2F 3F 6F Second order (6>1)	Not reported Not reported X <sup>2</sup> =961.73, p<.01, RMSEA=.065, SRMR=.064, CFI=.86 X <sup>2</sup> =1258.56, p<.01, RMSEA=.077, SRMR=.081, CFI=.83	Poor Poor Acceptable fit Acceptable fit	Not reported, but references provided [54]
Petrocchi, 2014 [19]	Adults recruited online (n=424; 40% students)	Italian	CFA	1F 2F 6F Second order (6>1)	Not reported Not reported X <sup>2</sup> =320.28, p<.001, RMSEA=.08, SRMR=.07, TLI=.97, CFI=.90 Not reported	Poor fit Poor fit Adequate fit Poor fit	CFI, TLI ≥ .90; 0.5 ≤ RMSEA ≤ .08 SRMR ≤ .08
Garcia-Campayo [17]	College (health science) students (n=268)	Spanish	CFA	6F	X <sup>2</sup> = not reported; RMSEA=.06, SRMR=.05; CFI=.95; GFI=.93	Adequate fit	CFI, GFI > .90; SRMR, RMSEA < .08
Williams, 2014 [20]	Convenience sample (n=821)	English/ UK	CFA	1F 6F Second order (6>1)	X <sup>2</sup> =3937.49, p<.001, RMSEA=.12, SRMR=.10, CFI=.68, NNFI=.65 X <sup>2</sup> =1472.68, p<.001, RMSEA=.07, SRMR=.06, CFI=.90, NNFI=.88 X <sup>2</sup> =2142.74, p<.001, RMSEA=.09, SRMR=.09, CFI=.84, NNFI=.81	Poor fit Adequate fit Poor fit	Good (and adequate) criteria for adequate fit CFI, NNFI ≥ .95 (≥ .90); RMSEA ≤ .06 (≤ .10); SRMR ≤ .05 (≤ .10)
	Adults practicing meditation (n=211)			1F 6F Second order (6>1)	X <sup>2</sup> =4649.68, p<.001, RMSEA=.13, SRMR=.10, CFI=.64, NNFI=.61 X <sup>2</sup> =2629.61, p<.001, RMSEA=.10, SRMR=.08, CFI=.80, NNFI=.77 X <sup>2</sup> =3104.76, p<.001, RMSEA=.11, SRMR=.10, CFI=.77, NNFI=.73	Poor fit Acceptable Poor fit	
	Adults with major depressive disorder (n=390)			1F 6F Second order (6>1)	X <sup>2</sup> =3837.89, p<.001, RMSEA=.12, SRMR=.10, CFI=.63, NNFI=.59 X <sup>2</sup> =1673.59, p<.001, RMSEA=.08, SRMR=.06, CFI=.85, NNFI=.83 X <sup>2</sup> =2450.86, p<.001, RMSEA=.09, SRMR=.10, CFI=.77, NNFI=.74	Poor fit Acceptable fit Poor fit	
Lopez, 2015 [27]	Community sample (n=1643)	Dutch	EFA	2F	No model testing	N/a	N/a
			CFA CFA	6F Second order (6>1)	X <sup>2</sup> =3779.47, p<.001, RMSEA=.10, WRMR=3.15, CFI= 0.90, TLI=.88 Not reported	Poor fit Poor fit	Good (and adequate) fit: CFI, TLI ≥ .95 (≥ .90); RMSEA ≤ .06 (≤ .08); WRMR ≤ 1.0

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Costa, 2015 [24]	Mixed community and clinical sample (n=220)	Portuguese	CFA	2F 6F Second order (6>1)	$X^2=738.88$ , $p<.000$ , $RMSEA=.07$ , $TLI=.87$ , $CFI=.88$ $X^2=597.60$ , $p<.000$ , $RMSEA=.07$ , $TLI=.87$ , $CFI=.88$ $X^2=885.58$ , $p<.000$ , $RMSEA=.10$ , $TLI=.75$ , $CFI=.78$	Acceptable fit Poor fit Poor fit	$CFI, TLI \geq .90$ ; $RMSEA \leq .06$
Castilho, 2015 [21]	Mixed clinical sample (n=316)	Portuguese	CFA	6F Second order (6>1)	$X^2/df = 2.37$ , $p<.001$ , $RMSEA=.07$ , $TLI=.88$ , $CFI=.90$ $X^2/df = 2.98$ , $p<.001$ , $RMSEA=.08$ , $TLI=.91$ , $CFI=.94$	Adequate fit Adequate fit	$X^2/df > 2$ ; $CFI, TLI \geq .90$ ; $RMSEA \leq .10$
	Mixed non-clinical sample (n=1128)			6F Second order (6>1)	$X^2/df = 5.91$ , $p<.001$ , $RMSEA=.07$ , $TLI=.91$ , $CFI=.92$ $X^2/df = 5.98$ , $p<.001$ , $RMSEA=.07$ , $TLI=.91$ , $CFI=.92$	Adequate fit Adequate fit	
Arimitsu, 2014 [22]	General population (n=366)	Japanese	CFA	1F	$X^2/df = 7.31$ , $RMSEA=.13$ , $CFI=.40$ , $NNFI=.35$	Poor fit	$CFI \geq .95$ , $RMSEA \leq .06$
				6F	$X^2/df = 2.61$ , $RMSEA=.07$ , $CFI=.86$ , $NNFI=.83$	Poor fit	
				Second order (6>1)	$X^2/df = 3.68$ , $RMSEA=.09$ , $CFI=.75$ , $NNFI=.73$	Poor fit	
				Second order (6>2)	$X^2/df = 2.68$ , $RMSEA=.07$ , $CFI=.85$ , $NNFI=.83$	Poor fit	
Pfattheicher, 2017 [28]	Convenience sample (n=576)	English	CFA	1F	$X^2=2645$ , $p<.001$ , $RMSEA=.12$ , $CFI=.77$ , $PCFI=.65$	Poor fit	$CFI > .90$ , $PCFI$ [cut off value not specified], $RMSEA < .08$ ,
				2F	$X^2=1445$ , $p<.001$ , $RMSEA=.08$ , $CFI=.89$ , $PCFI=.75$	Poor fit	
				Second order (6>1)	$X^2=1300$ , $p<.001$ , $RMSEA=.08$ , $CFI=.90$ , $PCFI=.75$	Poor fit	
				Second order (6>2)	$X^2=959$ , $p<.001$ , $RMSEA=.06$ , $CFI=.93$ , $PCFI=.78$	Adequate fit	
				6F	$X^2=826$ , $p<.001$ , $RMSEA=.06$ , $CFI=.95$ , $PCFI=.77$	Adequate fit	
			SEM	6F > 2F	$X^2=958.55$ , $RMSEA=.06$ , $CFI=.93$ , $\omega$ Positive factor=.95; $\omega$ Negative factor=.93	Adequate fit	
Brenner, 2017 [26]	College students (n=1115)	English	CFA	1F	$X^2=6396.59$ , $RMSEA=.14$ , $SRMR=.10$ , $CFI=.85$ , $NNFI=.81$ , $AIC= 6500.59$	Poor fit	$CFI, NNFI \geq .95$ , $SRMR \leq .08$ , and $RMSEA \leq .06$ . $6 < \Delta AIC > 10$
				2F	$X^2=2070.34$ , $RMSEA=.07$ , $SRMR=.06$ , $CFI=.96$ , $NNFI=.94$ , $AIC= 2176.34$	Adequate fit	
				3F	$X^2=6552.39$ , $RMSEA=.14$ , $SRMR=.10$ , $CFI=.84$ , $NNFI=.81$ , $AIC= 6662.39$	Poor fit	
				6F	$X^2=1332.52$ , $RMSEA=.06$ , $SRMR=.05$ , $CFI=.97$ , $NNFI=.96$ , $AIC= 1466.52$	Adequate fit	
				Second order (6>1)	$X^2=2156.57$ , $RMSEA=.08$ , $SRMR=.10$ , $CFI=.95$ , $NNFI=.94$ , $AIC= 2272.57$	Adequate fit	
				Second order (6>2)	$X^2=1537.59$ , $RMSEA=.06$ , $SRMR=.05$ , $CFI=.97$ , $NNFI=.95$ , $AIC= 1659.59$	Adequate fit	
				Bifactor (6>1)	$X^2=1995.72$ , $RMSEA=.08$ , $SRMR=.13$ , $CFI=.96$ , $NNFI=.94$ , $AIC= 2151.72$	Adequate fit	
				Bifactor (6>2) <sup>c</sup>	$X^2=1244.36$ , $RMSEA=.06$ , $SRMR=.17$ , $CFI=.98$ , $NNFI=.96$ , $AIC= 1400.36$ - General Self compassion ( $\omega H=.84$ , $PRV=.92$ , $ECV=.75$ ); SK ( $\omega HS=.18$ , $PRV=.21$ ); CH ( $\omega HS=.27$ , $PRV=.35$ ); MF ( $\omega HS=.02$ , $PRV=.03$ ); - General Self coldness ( $\omega H=.88$ , $PRV=.94$ , $ECV=.68$ ); SJ ( $\omega HS=.12$ , $PRV=.15$ ); IL ( $\omega HS=.12$ , $PRV=.15$ ); OI ( $\omega HS=.18$ , $PRV=.20$ );	Adequate fit	
Tóth-Király, 2016 [25]	Online sample (n=505)	Hungarian	CFA	6F	$X^2=1755.66$ , $RMSEA=.10$ , $CFI=.85$ , $TLI=.82$	Poor fit	Good (and adequate) fit: $CFI, TLI \geq .95$ ( $\geq .90$ ), $RMSEA \leq .06$ ( $\leq 0.08$ )
				Bifactor (6>1)	$X^2=3025.58$ , $RMSEA=.14$ , $CFI=.71$ , $TLI=.66$	Poor fit	
			ESEM	6F Bifactor (6>1)	$X^2=509.92$ , $RMSEA=.06$ , $CFI=.97$ ; $TLI=.94$ $X^2= 482.85$ , $RMSEA=.06$ , $CFI=.97$ , $TLI=.95$ ,	Adequate fit Adequate fit,	

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					- General Self compassion ( $\omega=.88$ , $\omega_H=.53$ ); Subscales ( $\omega_{HS}$ , $SK=.53$ , $CH=.72$ , $MF=.09$ , $SJ=.45$ , $IS=.24$ , $OI=.17$ )	Good fit	$\Delta CFI \leq 0.010$ , $\Delta TLI \leq 0.010$ , and $\Delta RMSEA \leq 0.015$ .	
Kotsou, 2016 [32]	Online sample (n=1554)	French	CFA	6F	$X^2=1372$ , $p<.001$ , $X^2/df=4.95$ , $RMSEA=.05$ , $SRMR=.04$ , $CFI=.94$ , $TLI=.93$	Good fit	Good (and adequate) fit: $CFI, TLI > .90$ ; $0 \leq SRMR \leq .05$ ( $.05 \leq SRMR \leq .10$ ) $0 \leq RMSEA \leq .05$ . ( $.05 \leq RMSEA \leq .08$ )	
				Second order (6>1)	$X^2=2284$ , $p<.001$ , $X^2/df=7.98$ , $RMSEA=.07$ , $SRMR=.07$ , $CFI=.88$ , $TLI=.89$	Good fit		
				Bifactor (6>1)	$X^2=1815$ , $p<.001$ , $X^2/df=6.23$ , $RMSEA=.06$ , $SRMR=.05$ , $CFI=.92$ , $TLI=.91$ , $\omega=.94$	Good fit		
deSouza, 2016 [33]	Online sample (n=432)	Brazilian Portuguese	CFA	6F	$X^2=895.90$ , $p<.001$ , $RMSEA=.07$ , $CFI=.94$ , $TLI=.93$	Good fit	$CFI, TLI \geq .90$ RMSEA [not reported]	
				Second order (6>1)	$X^2=1407.49$ , $p<.001$ , $RMSEA=.09$ , $CFI=.89$ , $TLI=.87$	Adequate fit		
Montero-Marín, 2016 [31]	Primary care professionals (Brazil: n=406) (Spain: n=414)	Brazilian Portuguese	CFA	1F	$X^2=2266.31$ , $p<.001$ , $X^2/df=7.58$ , $RMSEA=.13$ , $SRMR=.13$ , $CFI=.58$ , $AIC=2370.31$	Poor fit	Good (and adequate) fit: $X^2/df < 3$ ( $X^2/df < 5$ )	
				Brazilian (Spanish) samples		$(X^2=2164.46$ , $p<.001$ , $X^2/df=7.24$ , $RMSEA=.12$ , $SRMR=.14$ , $CFI=.55$ , $AIC=2268.46$ )		Poor fit
					2F	$X^2=675.07$ , $p<.001$ , $X^2/df=2.27$ , $RMSEA=.05$ , $SRMR=.07$ , $CFI=.84$ , $AIC=1179.86$		Poor fit
						$(X^2=683.28$ , $p<.001$ , $X^2/df=2.29$ , $RMSEA=.05$ , $SRMR=.09$ , $CFI=.79$ , $AIC=1250.93$ )		Poor fit
			Spanish		6F	$X^2=589.14$ , $p<.001$ , $X^2/df=2.07$ , $RMSEA=.05$ , $SRMR=.06$ , $CFI=.89$ , $AIC=947.65$	Adequate fit	lowest AIC
						$(X^2=582.14$ , $p<.001$ , $X^2/df=2.05$ , $RMSEA=.05$ , $SRMR=.08$ , $CFI=.86$ , $AIC=993.42$ )	Adequate fit	
					Second order (6>1)	$X^2=699.29$ , $p<.001$ , $X^2/df=2.39$ , $RMSEA=.06$ , $SRMR=.14$ , $CFI=.78$ , $AIC=1439.11$	Poor fit	
						$(X^2=692.16$ , $p<.001$ , $X^2/df=2.36$ , $RMSEA=.06$ , $SRMR=.14$ , $CFI=.76$ , $AIC=1385.50$ )	Poor fit	
			Second order (6>2)	$X^2=858.12$ , $p<.001$ , $X^2/df=2.94$ , $RMSEA=.07$ , $SRMR=.07$ , $CFI=.88$ , $AIC=1067.87$	Acceptable			
				$(X^2=949.87$ , $p<.001$ , $X^2/df=3.25$ , $RMSEA=.07$ , $SRMR=.09$ , $CFI=.84$ , $AIC=1067.87$ )	Poor fit			
			Second order	$X^2=1237.71$ , $p<.001$ , $X^2/df=4.27$ , $RMSEA=.09$ , $SRMR=.12$ , $CFI=.80$ ,	Poor fit			

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(6>3[pos])	AIC=1359.71 ( $X^2=1261.98$ , $p<.001$ , $X^2/df=4.35$ , RMSEA=.09, SRMR=.13, CFI=.76, AIC=1383.98)	Poor fit
3F [pos]	$X^2=244.04$ , $p<.001$ , $X^2/df=3.94$ , RMSEA=.09, SRMR=.05, CFI=.91, AIC=302.04 ( $X^2=285.73$ , $p<.001$ , $X^2/df=4.61$ , RMSEA=.09, SRMR=.06, CFI=.89, AIC=343.73)	Good fit Good fit
Second order (3[pos]>1 [SCS pos])	$X^2=244.04$ , $p<.001$ , $X^2/df=3.94$ , RMSEA=.09, SRMR=.05, CFI=.91, AIC=302.04 ( $X^2=285.73$ , $p<.001$ , $X^2/df=4.61$ , RMSEA=.09, SRMR=.06, CFI=.89, AIC=343.73)	Good fit Good fit
3F [neg]	$X^2=233.31$ , $p<.001$ , $X^2/df=3.76$ , RMSEA=.08, SRMR=.06, CFI=.93, AIC=317.31 ( $X^2=211.95$ , $p<.001$ , $X^2/df=3.42$ , RMSEA=.08, SRMR=.05, CFI=.91, AIC=295.95)	Good fit Good fit
Second order (3[neg]>1 [SCS neg])	$X^2=164.09$ , $p<.001$ , $X^2/df=2.65$ , RMSEA=0.06, SRMR=.05, CFI=0.93, AIC=291.31 ( $X^2=183.26$ , $p<.001$ , $X^2/df=2.96$ , RMSEA=.06, SRMR=.05, CFI=.91, AIC=269.95)	Good fit Good fit
Third order (6>3[pos]>1 [SCS])	$X^2=1237.71$ , $p<.001$ , $X^2/df=4.27$ , RMSEA=.09, SRMR=.12, CFI=.80, AIC=1359.71 ( $X^2=1261.67$ , $p<.001$ , $X^2/df=4.35$ , RMSEA=.09, SRMR=.12, CFI=.76, AIC=1383.66)	Poor fit Poor fit
Bifactor (6>1)	$X^2=1171.22$ , $p<.001$ , $X^2/df=4.29$ , RMSEA=.09, SRMR=.13, CFI=.81, AIC=1327.22 ( $X^2=1056.42$ , $p<.001$ , $X^2/df=3.87$ , RMSEA=.08, SRMR=.11, CFI=.81, AIC=1212.42)	Poor fit Poor fit

*Note.* CFA = confirmatory factor analysis; SEM = structural equation modelling; ESEM = exploratory structural equation modelling; EFA = exploratory factor analysis; df = degrees of freedom; CFI = Comparative Fit Index; PCFI= parsimony adjusted CFI; TLI = Tucker-Lewis Index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; WRMR = weighted root mean residual; NNFI = non-normed fit index; AIC = Akaike's Information Criterion;  $\omega$ H = omega hierarchical;  $\omega$ HS = omega hierarchical subscale; PRV = proportion of reliable variance; ECV = explained common variance. SK = self-kindness, CH = common humanity, MF = mindfulness, SJ = self-judgment, IL = isolation, OI = over-identification;

1F = One-factor model encompassing all 26 SCS items;

2F = Two-factor model encompassing all positive and all negative items, respectively;

3F = Three-factor model reflecting three dimensions of SCS, SK versus SJ, SH versus IL, and MF versus OI;

3F [pos] = Three-factor model reflecting the positive SCS subscales (SK, CH, MF)

3F [neg] = Three -factor model reflecting the negative SCS subscales (SJ, IL, OI)

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6F = Six-factor model corresponding to six SCS subscales;

Second order (6>1) = Hierarchical order model with six first order factors and one higher/second order factor;

Second order (6>2) = Hierarchical order model with six first order factors and two second/higher order factors;

Second order (6>3[pos]) = Hierarchical order model with six first order factors and three second/higher order factors, SK, CH, MF

Second order (3[pos]>1 [SCS pos]) = Hierarchical order model with three first order positive SCS factors (SK, CH, MF) and one second/higher order factor (self-compassion)

Second order (3[neg]>1 [SCS neg]) = Hierarchical order model with three first order negative SCS factors (SJ, IL, OI) and one second/higher order factor (self-criticism)

Third order (6>3[pos]>1 [SCS]) = Hierarchical order model with six first order factors (six SCS subscales), three second order factors (SK, CH, MF) and one third order factor (SCS)

Bifactor (6>1) = model with six group factors [SCS subscales] and one target/general factor [overall SCS].

<sup>†</sup>Model fit qualifiers phrased by current authors, but reflecting the evaluation of the model fit as reported in the original study; Good and Adequate fit = in agreement with a priori set criteria; Acceptable fit = somewhat below the a priori set criteria, but still judged as acceptable by the authors. The authors of the original studies differed in their choice of cut-offs and interpretation of their findings.