

The Self-Compassion Scale is Not Validated in a Buddhist Sample

Xianglong Zeng¹ · Jun Wei¹ · Tian PS Oei^{2,3,4} ·
Xiangping Liu¹

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Abstract The concept of self-compassion originated from Buddhism, but very little is known about the utility and functions of this concept among Buddhists. Four hundred and eleven individuals (179 Buddhists and 232 non-Buddhists) completed the survey packages using the self-compassion scale (SCS; Neff in *Self Identity* 2(3):223–250, 2003a. doi:10.1080/15298860309027). Confirmatory factor analysis showed that the original six dimensions of the SCS were not replicated by both samples, and further analysis of the intra-correlations within dimensions of SCS and relationships between SCS and other variables showed unexpected results specific to Buddhists. Among Buddhists, the dimensions of self-kindness and common humanity neither showed negative correlations with their opposite dimensions nor were associated with better emotional outcomes. In addition, these two dimensions were not predicted by the regular practice of loving-kindness meditation. This study argued that the ideas of self-compassion reflected in the SCS are theoretically different from the ideas of Buddhism, and further implications for measuring and clinically applying self-compassion were discussed.

Keywords Self-compassion · Mindfulness · Buddhists · Experiential avoidance · Loving-kindness meditation

✉ Xiangping Liu
lxp599e@163.com

¹ School of Psychology, Beijing Normal University, No. 19, XinJieKouWai St., HaiDian District, Beijing 100875, People's Republic of China

² The University of Queensland, Brisbane, QLD, Australia

³ James Cook University Singapore, Singapore, Singapore

⁴ Nanjing University, Nanjing, People's Republic of China

Introduction

Self-Compassion and Its Measurement

The concept of self-compassion (SC) has garnered attention in clinical psychology in recent years (e.g., Brion et al. 2014). SC originated from the loving-kindness meditation (LKM) in Buddhism, which directs people to have compassion toward all living beings, including oneself (Neff 2003b). Neff (2003b) proposed the concept of SC based on compassion for oneself and further conceptualized it as a three-component concept. The first component is “self-kindness,” which refers to extending kindness and understanding to one’s own sufferings or failures rather than harsh judgment and self-judgment. The second is “common humanity,” which means framing one’s own experiences in light of the common human experience rather than seeing them as separate and isolated. The third is “mindfulness,” which means maintaining a nonjudgmental attitude toward one’s inadequacies and failures in balanced awareness rather than over-identifying with them (Neff 2003b).

Accordingly, Neff (2003a) developed a 26-item self-compassion scale (SCS) based on the three main components of SC. The 26 items were divided into six factors rather than three because factor analysis showed that a six-factor model, with each main component consisting of two opposite factors (self-kindness vs. self-judgment, common humanity vs. isolation, and mindfulness vs. over-identification), demonstrated a better fit to the empirical data than a three-factor model did. The three pairs of opposite factors have negative correlations, while factors of the same direction have positive correlations (Neff 2003a). Such a pattern was also confirmed in a Chinese university sample (Chen et al. 2011).

SC comes from Buddhism, but some scholars of Buddhism have stated theoretical differences between the current SC concept and Buddhist philosophy. For example, Peng and Shen (2012) argued that the dimension of common humanity in SC encourages people to consider other suffering people and thereby to understand the common weakness of humanity. Although common humanity emphasizes the connection between people, the underlying philosophy is a dualism that opposites self with others (and makes a comparison), which differs from the emphasis on the “oneness” of self and others in Buddhist philosophy. In line with this discrepancy in the relationship between self and others, self-kindness in SC only serves the happiness of oneself, whereas Buddhism encourages “four immeasurables” (loving-kindness, compassion, appreciative joy, and equanimity for all beings) when facing difficulties, which cover both oneself and others (see Peng and Shen 2012 for further discussion).

Empirically, no previous study validating the SCS among Buddhists or further discussing whether the current SC concept is consistent with Buddhist ideas has been found, although some studies have used this scale among participants with a Buddhist background. Neff (2003a) compared 45 Buddhists who practiced Vipassana meditation with a university sample and found that Buddhists had higher scores on the positive dimensions and lower scores on the negative dimensions of the SCS. To our knowledge, this is the only study that included a full Buddhist sample; however, the sample size was too small, and Neff (2003a) did not examine the psychometric structure of the scale. In addition, some studies reported that meditators had higher global SC scores than did undergraduate students, community adults (Neff and Pommier 2013), and matched non-meditators (Baer et al. 2012); however, the meditators were not all Buddhists. Notably, a recent study (Williams et al. 2014) reported that the fit indexes of a confirmatory factor analysis of the

SCS were not acceptable in a meditator sample (they practiced various meditations, and their religious backgrounds were not reported) or in another clinical sample in addition to community samples. Such results indicated that the psychometric properties of the SCS were not stable and varied across people with different backgrounds. Therefore, the first aim of the present study was to examine the psychometric properties and the validity of the SCS among Chinese Buddhists.

The second aim was to investigate whether SCS was associated with well-being in an expected way. Numerous existing studies have identified SC as associated with multiple aspects of well-being, including higher levels of positive affect, optimism, and happiness (e.g., Neff et al. 2007), as well as lower levels of negative affect, anxiety, and depression (e.g., Neff 2003a). In addition, self-compassionate individuals are more likely to perform effective regulation and coping (Neff et al. 2005) and have improved functioning in interpersonal relationships (Baker and McNulty 2011). In the current study, we used a widely used indicator, subjective well-being, as a measure of criterion-related validity to validate the SCS among Buddhists and expected a higher SC to be associated with higher subjective well-being.

The third aim was based on LKM, the origin of SC as mentioned above. Recently, studies on several interventions based on LKM have proved its effectiveness in enhancing SC (e.g., Neff and Germer 2013). As an important meditation of Buddhism, LKM is also widely practiced by many Buddhists, and therefore, this study investigated whether Buddhists who practice more loving-kindness meditation have a higher level of SC in comparison with other Buddhists.

Notably, because this study was conducted in China, another sample of non-Buddhists was also adopted to control confounding factors such as translation and culture. Additionally, because SC originated from Buddhism and a previous study showed that Buddhists had higher scores on the SCS than non-Buddhist university students did (Neff 2003a), the current study also compared the scores on SCS between two samples as an additional part of the validation. In all, the present study focused on the psychometric properties and validity of the SCS among Buddhists.

Methods

Participants

Four hundred and eleven participants from two samples participated in this study. The first sample consisted of 179 Buddhist participants who were recruited from the Chinese Buddhist social networks. In total, 257 participants completed the questionnaire. Of these, 21 cases were excluded because they did not believe in Buddhism. Another 57 cases were not used due to incomplete raw data or unserious answers (see the preliminary data analysis below). The final Buddhist sample contained 112 males and 67 females with a mean age of 35.5 ($SD = 8.9$) years. All of the participants reported that they believed in Buddhism but lived common lives in the community rather than living as monks in temples. More information (e.g., traditions or schools of Buddhism) is available upon request.

A second sample of 232 non-Buddhists was recruited by an online sample service company. In total, 321 respondents completed the questionnaire, and 48 cases were excluded due to unserious answers and 41 cases were further deleted because they reported

certain religious beliefs. The final non-Buddhist sample contained 102 males and 130 females with a mean age of 31.1 ($SD = 6.7$), which was significantly younger and had more females than the Buddhists sample.

Instruments

The Chinese version of the SCS. The original 26-item SCS contains six dimensions (self-kindness vs. self-judgment, common humanity vs. isolation, and mindfulness vs. over-identification) with a five-point Likert-type scale: 1 = almost never, 5 = almost always (Neff 2003a). The Chinese version was validated among Chinese university students. It maintains the basic six-dimensional structure of the scale and the model fit is good, but the internal consistency of the subscales only ranges from .51 to .70, and three items have item-total correlations lower than .3. The authors did not further revise it for the sake of consistency with the original scale (Chen et al. 2011).

The Chinese Positive and Negative Affect Schedule (Chinese PANAS). The Chinese PANAS measures the emotional status in the last month and was used as an index of emotional outcomes in this study. It contains eight items for positive emotions and six items for negative emotions, rated with a four-point Likert scale: 1 = none, 2 = seldom, 3 = sometimes, 4 = often. The internal consistency coefficient for positive affect was .89 and for negative affect was .86 among a Chinese sample (Chen and Zhang 2004).

The Chinese version of the Satisfaction with Life Scale (SWLS). The SWLS measures general satisfaction with life and was used as an index of emotional outcomes in this study. The SWLS contains five items that are rated with a seven-point Likert scale: 1 = disagree, 7 = agree (Diener et al. 1985). The Chinese version of this scale also showed good reliability and validity in previous studies (e.g., Di and Zheng 2008).

The Revised Chinese version of the Philadelphia Mindfulness Scale (PHLMS). The PHLMS was only measured among Buddhists sample. It contains dimensions of awareness and avoidance with 10 items for each dimension (Cardaciotto et al. 2008). The “avoidance” dimension measured “experiential avoidance,” that is, maladaptive avoidance toward one’s mental events such as suppression of negative emotions, which is the opposite of psychological acceptance (Hayes et al. 1996). The Chinese short version of the PHLMS excludes potentially confusing items for Buddhists and better matches the awareness and equanimity emphasized by Buddhist mindfulness meditation (Zeng et al. 2013). This revised scale contains five items on each dimension and is rated on a five-point Likert-type scale: 1 = never, 5 = very often. Empirical data revealed that the short version has good psychometric properties among Buddhists (Zeng et al. 2015).

Practice of loving-kindness meditation. For Buddhists, we collected the frequency of loving-kindness meditations with a single choice of five points: “none or not regular,” “<2 h per week,” “3–7 h per week,” “7–14 h per week,” and “more than 14 h per week.” This result was then recoded into whether one practices regularly or not; “none or not regular” was recoded as “no regular practice,” and others were recorded as “regular practices.” Other behaviors were also collected but omitted here. No information regarding meditation was collected among the non-Buddhists sample.

Procedure

The package of questionnaires for Buddhists was present on an online data collection system, and the link was attached in social networks of Buddhism where people learn and discuss Buddhism. This assured that participants had knowledge of Buddhist theory to

some extent, which is different from some pilgrims who may also claim belief in Buddhism for good fortune but may not have knowledge of Buddhist theory. All participants answered the online questionnaire voluntarily and privately, and they could receive feedback on the research if they left an e-mail address. Of note, the pilot data based on part of the current sample have been published (Zeng et al. 2015) in a study that revised the PHLMS (Cardaciotto et al. 2008) and did not report any SCS data.

The data for the non-Buddhist sample were collected by an online sample service company in China. Because the current data were originally collected for another study, the package of questionnaires used the same SCS, PANAS, and SWLS for Buddhists, but did not include PHLMS and Buddhist behaviors. It additionally included some other omitted scales that were not measured in the Buddhist sample, and no data for this sample have been reported previously.

Statistics

Preliminary data analysis: Preliminary statistics were conducted to prepare the data and to check for unserious cases. Cases that appeared to be unserious (with repetitive answers or zigzag answer patterns) were deleted. No missing values existed, as all items were set as required, with unfinished cases not recorded as final data. No outlier cases were deleted. A multi-collinearity test showed that the tolerance of all variables was larger than .1, indicating that no serious collinearity existed.

Confirmatory factor analysis (CFA) was conducted by LISREL 8.0 with the maximum likelihood method. We chose four indexes for the current analysis: Chi-square with degrees of freedom (χ^2/df) as an informal measure of fit for use in model comparison; the root mean square error of approximation (RMSEA; Steiger and Lind 1980) as a non-centrality-based

Table 1 Correlations among psychological variables

	1	2	3	4	5	6	7	8	9
1. SCS self-kindness		-.38**	.60**	-.31**	.71**	-.41**	.47**	-.39**	.50**
2. SCS self-judgment	-.04		-.19**	.66**	-.32**	.70**	-.36**	.60**	-.22**
3. SCS common humanity	.46**	.07		-.27**	.62**	-.33**	.50**	-.30**	.44**
4. SCS isolation	.01	.70**	-.03		-.37**	.78**	-.39**	.58**	-.28**
5. SCS mindfulness	.43**	-.24**	.47**	-.34**		-.48**	.53**	-.48**	.49**
6. SCS over-identification	.03	.70**	-.06	.74**	-.41**		-.38**	.62**	-.34**
7. Positive emotion	.27**	-.14	.21**	-.23**	.37**	-.18*		-.48**	.62**
8. Negative emotion	-.10	.46**	-.17*	.60**	-.38**	.60**	.19*		-.43**
9. Life satisfaction	.13	-.30**	.15*	-.36**	.41**	-.33**	-.48**	-.47**	

* $p < .05$. ** $p < .01$. The lower-left triangle represents data from the Buddhists ($N = 179$), while the upper-right triangle represents data from the non-Buddhists ($N = 232$)

absolute fit index, which would be $<.08$ for an acceptable fit and $<.05$ for a good fit; and the comparative fit index (CFI; Bentler 1990) and non-normed fit index (NNFI; Bentler 1990) as indexes of relative fit, both of which would be $>.9$ for an acceptable and $>.95$ for a good fit. Other statistics were conducted with SPSS 13.0, with Cohen's d value (Cohen 1969) as an additional evaluation of effect sizes of t tests.

Results

Structure of the SCS

CFA was conducted on the data of 179 Buddhist participants and 232 non-Buddhist participants, based on the theoretical structure model of the SCS with six intra-correlated dimensions. LISREL results showed that the PHI matrix, i.e., the correlation matrix of six dimensions, was not positive definite among either Buddhists or non-Buddhists, indicating that the overall SCS model did not fit the current data well, and thus the relevant fit indexes were not reliable. This finding probably resulted from the high correlations between three negatively worded dimensions, i.e., self-judgment, isolation, and over-identification, within both the Buddhist and non-Buddhist samples (see Table 1). Therefore, we further explored several other models, including separating positive and negative dimensions into independent models, or combining three dimensions in the same direction into one dimension. The only two acceptable models for both Buddhists and non-Buddhists were the model consisting of three intra-correlated positive dimensions (for Buddhists, $\chi^2/df = 1.724$, CFI = .96, NNFI = .95, RMSEA = .064; for non-Buddhists, $\chi^2/df = 2.422$, CFI = .97, NNFI = .96, RMSEA = .078), and the model that combined all items of negative dimensions (for Buddhists, $\chi^2/df = 2.114$, CFI = .92, NNFI = .90, RMSEA = .079; for non-Buddhists, $\chi^2/df = 2.274$, CFI = .94, NNFI = .92, RMSEA = .070). Regarding other models, those maintaining three separate negative dimensions could not be properly evaluated (i.e., not positively defined), and those involving both positive and negative dimensions in one model or combined positive dimensions into one dimension did not meet the criteria for selected indexes. A multiple-group analysis was performed to test whether the two acceptable models mentioned above fit the data equally well for both Buddhists and non-Buddhists. The results showed that both the model of three intra-correlated positive dimensions and the model of combined negative dimensions were equivalent across both samples when factor loadings were constrained as invariant, but not when the correlational pattern among positive dimensions was constrained as invariant. The details for these models and multiple-group analysis are available upon request.

The correlations among six dimensions are presented in Table 1. For both Buddhists and non-Buddhists, the correlations among three positive dimensions and three negative dimensions were all positive, although the latter were higher in both samples. However, the correlation patterns between opposite dimensions differed between Buddhists and non-Buddhists. The non-Buddhist samples replicated negative correlations between opposite dimensions, which is consistent with the expectation. By contrast, in the Buddhist sample, the correlation between self-kindness and self-judgment ($r = -.04$, $p = .64$), as well as that between common humanity and isolation ($r = -.03$, $p = .72$), was not significant. Further comparisons between the correlations of two samples confirmed that these two correlations in the Buddhist sample were significantly lower than those in the non-Buddhist sample ($Z = -3.59$ and -2.46 , respectively, $ps < .01$), whereas the correlation between

the third pair of opposite dimensions was not significantly different across samples ($Z = -.87, p > .05$).

Following the suggestion of Williams et al. (2014), the analysis of the SCS below was based on six separate dimensions rather than an entity concept of SC because the structure of the scale was not replicated. Although the negative dimensions had high intra-correlations, they were separated to make it compatible with other studies. With respect to the psychometric properties of each dimension, the reliabilities of self-judgment and common humanity in the Buddhist sample were .691 and .608, respectively, and the common humanity in the non-Buddhist sample was .688. The reliabilities of all other dimensions in two samples were higher than .7.

Relationships Between Dimensions of SCS and Other Variables

Table 1 also shows the relationships between the SCS dimensions and the outcome variables. The results for the non-Buddhist sample were consistent with expectations because positive dimensions of SCS were associated positively with positive emotions and life satisfactions (negatively with negative emotions), and negative dimensions of SCS showed reversed patterns. As for the Buddhist sample, all six dimensions of SCS correlated with positive emotion in the expected directions (i.e., positive dimensions had positive correlations and vice versa), and a further comparison across samples confirmed that these correlations were significantly lower than those in the non-Buddhist sample on five dimensions of SC (Z s range from 2.01 to 3.53, $ps < .01$) except for isolation ($Z = 1.77, p > .05$). However, the results for negative emotion and life satisfaction were not fully consistent with expectation: The three negative dimensions of SCS showed moderate positive correlations with negative emotions (r ranged from .46 to .60) and negative correlations with life satisfaction (r ranged from $-.30$ to $-.36$), which were consistent with expectations. Among the positive dimensions, mindfulness showed the expected correlation with negative emotion ($r = -.38$) and life satisfaction ($r = .41$), but the correlations of self-kindness and common humanity were quite low and not significant at the .01 level. Further comparison across samples confirmed that the Buddhist sample showed significantly lower correlations between self-kindness and negative emotions ($Z = 3.11, p < .01$), self-kindness and life satisfaction ($Z = 4.18, p < .01$), common humanity and life satisfaction ($Z = 3.20, p < .01$), but not other three pairs of correlations (Z s range from 1.00 to 1.38, $ps > .05$).

Table 2 Differences between Buddhists and non-Buddhists

Variable	Buddhists ($n = 179$)		Non-Buddhists ($n = 232$)		t	p value	Cohen's d
	M	SD	M	SD			
1. Self-kindness	3.26	.63	3.69	.61	-6.921	<.01	-.693
2. Self-judgment	2.77	.66	3.02	.67	-3.850	<.01	-.376
3. Common humanity	3.48	.67	3.79	.61	-4.964	<.01	-.484
4. Isolation	2.59	.80	3.11	.78	-6.572	<.01	-.658
5. Mindfulness	3.75	.60	3.80	.63	-.886	.376	-.081
6. Over-identification	2.78	.75	3.22	.81	-5.655	<.01	-.564

Table 2 compares the scores on dimensions of SCS between Buddhists and non-Buddhists. The expectation was that Buddhists showed higher scores in positive dimensions and lower scores in negative dimensions of SCS. Buddhists showed a lower score on the three negative dimensions as expected; however, the scores on self-kindness and common humanity were also lower in Buddhists, and the scores on mindfulness did not show significant difference between groups. Table 3 compares the scores on the SCS dimensions between Buddhists who practiced loving-kindness meditations regularly each week and those who did not. For the three negative dimensions, the participants who practiced loving-kindness meditation showed significantly lower scores on isolation and over-identification and marginally significantly lower scores on self-judgment. However, for the positive dimensions, only mindfulness had a higher score among participants who practiced loving-kindness meditations, and the scores on self-kindness and common humanity are not different between the two groups.

Further Exploration of Items in Self-Kindness and Common Humanity

The statistics above indicated that self-kindness and common humanity in the Buddhist sample did not show the expected results: They did not show negative correlations with their opposite dimensions and were not predicted by loving-kindness meditation as were other dimensions. To explore the potential problems of these two dimensions, an analysis of the content of these two dimensions (content validity) is necessary. Considering that the items belonging to the same dimensions still have differences to some extent, we further analyzed the items in the dimensions of self-kindness and common humanity in detail to assist with the analysis of content, including their intra-correlations and their relationships with other variables. Additionally, avoidance measured by PHLMS, which was only used among the Buddhist sample, was also used for an exploratory purpose.

The correlations of items belonging to self-kindness and other psychological variables are presented in Table 4. Item 23 and item 26 of the SCS that belong to the self-kindness dimension have low correlations with the other three items in this dimension (r from .15 to .38). In addition, item 23 and item 26 do not have any significant correlations with emotional outcomes or mindfulness, while the other three items have correlations with emotional outcomes. In addition, item 5 has a positive correlation with avoidance ($r = .25$), and it is only correlated with positive emotion but not negative emotion or life satisfaction. Furthermore, a t test between participants who practiced loving-kindness

Table 3 Differences between whether participants practice loving-kindness meditation regularly

Variable	Regular practice ($n = 62$)		No regular practice ($n = 117$)		t	p value	Cohen's d
	M	SD	M	SD			
1. Self-kindness	3.30	.64	3.24	.63	.628	.53	.15
2. Self-judgment	2.65	.66	2.83	.65	-1.716	.09	-.43
3. Common humanity	3.55	.68	3.44	.67	1.043	.30	.25
4. Isolation	2.40	.75	2.69	.81	-2.402	.02	-.47
5. Mindfulness	3.88	.52	3.68	.63	2.100	.04	.57
6. Over-identification	2.61	.73	2.86	.75	-2.150	.03	-.46

Table 4 Correlations between items in self-kindness and other psychological variables

	1	2	3	4	5
1. Item 5 in SC					
2. Item 12 in SC	.60**				
3. Item 19 in SC	.57**	.69**			
4. Item 23 in SC	.26*	.38**	.36**		
5. Item 26 in SC	.21*	.15*	.15*	.34**	
6. Positive emotion	.25**	.32**	.30**	.07	.03
7. Negative emotion	-.05	-.15*	-.22**	.01	.03
8. Life satisfaction	.08	.11	.22**	.05	.01
9. PHLMS avoidance	.25**	.08	.11	-.02	.00

N = 179, * *p* < .05. ** *p* < .01

meditation regularly and those who did not showed no significant difference on any item (details omitted here).

The correlations of items belonging to common humanity and other psychological variables are presented in Table 5. The four items belonging to common humanity can also be divided into two groups: item 7 and item 10, which have a correlation of .42, and item 3 and item 15, which have a correlation of .59, and other correlations between the four items that are lower than .4. Additionally, item 3 and item 15 did not correlate with avoidance and correlate with emotional outcomes in expected ways, while item 7 and item 10 show unexpected results, with these two positive items of SCS associated with avoidance and item 7 associated with worse life satisfaction. There is no significant difference for any items between practicing loving-kindness meditation regularly or not.

Discussion

Validity of Global SCS

To investigate whether the SCS is suitable for Buddhists, this study evaluated the structure of the scale and its relationships with other variables. The original structure of six intra-correlated dimensions was not replicated in either the Buddhist or non-Buddhist sample, which could be attributed to the influence of Chinese culture or simply a problem in translation, rather than the special factor relevant to Buddhism. However, the result that two pairs of opposite dimensions (self-kindness vs. self-judgment and common humanity

Table 5 Correlations between items in common humanity and other variables

	1	2	3	4
1. Item 3 in SC				
2. Item 7 in SC	-.01			
3. Item 10 in SC	.26**	.42**		
4. Item 15 in SC	.59*	.11	.38**	
5. Positive emotion	.21**	-.01	.14	.27**
6. Negative emotion	-.22**	.10	-.08	-.33**
7. Life satisfaction	.32**	-.18*	.04	.33**
8. Experiential avoidance	-.08	.29**	.17*	-.05

N = 179, * *p* < .05. ** *p* < .01

vs. isolation) did not show negative correlations was specific to the Buddhist sample, which is fundamentally different from the theoretical structure of the SCS. By contrast, although the non-Buddhist sample in the current study and other samples in previous studies (e.g., Williams et al. 2014) did not replicate the structure with CFA, they mostly maintained the basic pattern of intra-correlations between dimensions, and to our knowledge, no previous study has reported a similar result as that of the Buddhist sample in the current study.

We further tested the relationship between the SCS dimensions and other variables, which provided more information on the potential problems of the dimensions of the SCS in the context of Buddhism. When predicting emotional outcomes, we found that self-kindness and common humanity did not correlate with negative emotions or life satisfaction in the expected direction as did the other four SCS dimensions in the Buddhist sample. Furthermore, it is expected that participants who practice more loving-kindness meditation should have a higher level of SC, but these two dimensions did not show a difference between whether one practices loving-kindness meditation regularly as did the other four dimensions. Comparing the Buddhist sample and non-Buddhist sample, there were general trends that the non-Buddhist sample showed significantly a higher score in all SCS dimensions except for mindfulness. Nevertheless, the results of self-kindness and common humanity were still relatively more divergent from the expectation in comparison with mindfulness, although none of the three dimensions showed the expected higher score in Buddhists. Because the Buddhist and non-Buddhist samples were recruited in different ways and their gender and age were also not matched, the direct comparisons between the scores of the two samples should be explained with caution. The more important value of the non-Buddhist sample is that, because the non-Buddhist sample showed the expected correlations between SCS and outcome variables, the problematic result that is unique to the Buddhist sample is less likely due to the translation quality or to Chinese culture.

In all, the results above indicate that the dimensions of self-kindness and common humanity had serious problems among the current sample of Buddhists. Of note, the data from the non-Buddhist sample excluded the problem of scale translation and Chinese culture as mentioned above, and some other evidence can exclude the possibility that the special result in the Buddhist sample is due to poor data collection. First, although the SCS structure is not replicated, the CFA results for PHMLS and PANAS are all acceptable in the current sample. Second, the items in different dimensions of SCS were interleaved, but the reliabilities of most dimensions are acceptable. Third, the unexpected results mainly focused on self-kindness and common humanity. All of these findings indicated that the unexpected results were specific to certain variables, and therefore, it is unlikely that they were due to poor data collection that should lead to general or systematic bias. To explore the potential problems of self-kindness and common humanity in context of Buddhism, we also conducted further statistical analysis for each item in the results section, which will be discussed below.

Problem of Self-Kindness: “Tolerance” is Ambiguous in the Context of Buddhism

Among the items belonging to the dimension of self-kindness, item 23 (“I’m tolerant of my own flaws and inadequacies”) and item 26 (“I try to be understanding and patient toward those aspects of my personality I don’t like”) share similar ideas of tolerance of one’s bad side, while other items describe warm attitudes toward oneself (e.g., item 19, “I’m kind to myself when I’m experiencing suffering.”). The difference in the content of the items can

explain why item 23 and item 26 have lower correlations with the other three items in the same dimension.

More importantly, the correlations between items and other psychological variables show that item 23 and item 26 did not predict any emotion outcomes, and this finding can be attributed to the ambiguity of “tolerance” in the context of Buddhism. Tolerance of one’s bad side in the context of SC implies to accept oneself, rather than assume harsh attitudes toward oneself or self-judgment. However, Buddhists, who emphasize “right effort” (one element of “Noble Eightfold Path,” Phang and Oei 2012), may consider tolerance of one’s negative side as not taking efforts to cultivate good virtues. The key point here is that, in Buddhism, “acceptance” is not equal to “no change” (Zeng et al. 2013), and the intention of changing one’s bad side does not necessarily imply lack of acceptance. For example, Buddhism claims the negative emotions should be and will be eliminated with continued correct effort in the long term, but maintaining equanimity or an attitude of acceptance toward negative emotions is the best way to cope with those negative emotions at the current time (Hart 1987). Consequently, because Buddhists always emphasize change and never consider that such emphasis implies lack of acceptance, they will perceive “tolerance” more as lack of effort rather than suggestion on self-acceptance. In this case, the meanings of item 23 and item 26 will be far from the other three items, and their relationship with other variables will also become unpredictable. Notably, western psychologists have also stated that SC should not be misunderstood as self-indulgence (Gilbert et al. 2011); however, a simple “tolerance” without an additional explanation in items is nonetheless confusable, whether in Chinese or English.

Problem of Common Humanity: Social Comparison is Not Advocated by Buddhism

The four items belonging to common humanity can also be divided into two groups based on their components: item 3 (“When things are going badly for me, I see the difficulties as part of life that everyone goes through.”) and item 15 (“I try to see my failings as part of the human condition”) emphasized that suffering is a common or inevitable part of life; item 7 (“When I’m down and out, I remind myself that there are lots of other people in the world feeling like I am.”) and item 10 (“When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.”) further implied a comparison with others. The results of intra-correlations of these items also support that correlations within the two groups are relatively higher and that correlations between the two groups are lower.

Regarding the relationships between items and other psychological variables, the results showed that item 7 and item 10 are positively associated with avoidance and even have a negative relationship with life satisfaction, which is opposite to the prediction that positive dimensions of SCS should be associated with lower avoidance and better mental health (Van Dam et al. 2011). Such unexpected results can also be explained based on the context of Buddhism: The idea that suffering is common, as item 3 and item 15 reflect, is consistent with the core doctrine of Buddhism. However, the idea of item 7 and item 10 that compares people to oneself poses a conflict with the philosophy of Buddhism, as mentioned above (Peng and Shen 2012). Because a comparison with others is not a recommended way to regulate emotions for Buddhists, it is possible that such behavior implies a strong motivation to avoid feelings of frustration, which explains its association with experimental avoidance. Overall, the data implied that the ideas involved in item 7 and item 10 may have

alternative meanings for Buddhists and lose their theoretical positive functions for mental health.

In addition to item 7 and item 10, the results showed that item 5 belonging to self-kindness also has a significant positive relationship with experiential avoidance. Because acceptance of negative emotions and outside situations is important for Buddhists (Zeng et al. 2013), the emotional self-caring reflected by item 5 (“I try to be loving toward myself when I’m feeling emotional pain.”) is also an unordinary emotion regulation effort for some Buddhists and reflects motivation of avoidance, as in item 7 and item 10. In all, the discussion above has mentioned that emotion-enhancing behaviors in positive dimensions of SCS can turn into experiential avoidance, and an additional analysis on certain items showed that these unordinary behaviors in the context of Buddhism are more likely to be associated with experiential avoidance.

Strengths, Limitations, and Implications for Future Studies

The current study was the first to validate the SCS among a Buddhists sample, and the results showed that the SCS had limitations in the context of Buddhists, although the idea of SC comes from Buddhism. Previous psychometric studies on mindfulness scales reported different structures of mindfulness between people from Thailand and America (Christopher et al. 2009), and between meditator and non-meditator (Baer et al. 2006). Such studies implied a different understanding of mindfulness between Buddhism and western psychology and led to further studies and discussions (e.g., Baer et al. 2008). Similarly, the current study indicated that some ideas reflected in items of SCS differ from what is encouraged in Buddhism. Particularly, the highlight of this study is that we performed a further statistical analysis to investigate the problematic dimensions (i.e., self-kindness and common humanity) and further illustrated how the ideas reflected in SCS are in conflict with Buddhist theories. Notably, the theoretical difference between the current concept of SC and the philosophy of Buddhism is not influenced by language.

The following limitations should be noted. First, the sample size of the current study was relatively small, and the results were by nature explored with the post hoc method (Peng and Shen 2012); therefore, the unexpected results should be considered with caution. Second, the current sample contains Buddhists from different schools of Buddhism, and the sample size limited further analysis for each school. The whole Buddhist sample did not match the non-Buddhist sample well, which limited the comparison between two samples. Moreover, collecting data via an Internet-based self-report inevitably caused self-selection bias, and we could not avoid some respondents lying about their Buddhist identities and behaviors. However, the details such as the exact level of SC among certain samples are not our major concern. Although potential bias existed, the major findings of the current study, such as special patterns of correlation focused on certain dimensions in Buddhists, are not the results of artificial answers from the respondents. Third, the explanation for the unexpected results for the Buddhists is rather speculative and lack direct evidence on exactly how a Buddhist behaves in daily life or thinks of the items in SCS. Nevertheless, the current study investigated potential problems by combining data from a large sample survey and a theoretical analysis, and future studies can further explore the details with more specific measurements or qualitative interviews.

Williams et al. (2014) have raised the necessity of improving SC measurements, and our finding also noted the necessity of revising the descriptions of items on the current SCS. The Chinese version of the SCS needs to be improved, and what is more important is how to measure SC among Buddhists, regardless of which language. More studies are necessary

to understand SC among Buddhists and to revise the scale as mentioned above. Based on the current study, we suggest that researchers consider measuring SC with negative dimensions only among Buddhists because the problems of the SCS mainly involve its positive dimensions. As illustrated above, those critical attitudes toward oneself pose a conflict with the idea of Buddhism, but the principle for ideal coping in Buddhism may be quite complex and thereby difficult to express clearly with a simple sentence or an item in a scale. Beyond Buddhism, the theoretical difference between the current SC concept and Buddhist theory has a broader implication for clinical application. For example, it is necessary to reconsider whether the current idea of common humanity implicitly involves a social comparison as mentioned above (Peng and Shen 2012). Furthermore, a certain LKM intervention has adopted the current concept of SC as its theoretical background and has intergraded the meditation practice of LKM (Neff and Germer 2013), whereas some other LKM interventions are more consistent with traditional LKM in both practice and theory. Some studies on those interventions with traditional LKM have reported the Buddhist philosophy, including “oneness” mentioned above, as a spiritual change (e.g., Sears et al. 2011), and future studies can further explore the extent to which these different philosophies taught in interventions influence the effect of such interventions.

Conclusion

The current study found that SCS was not validated among a Buddhist sample: Self-kindness and common humanity did not show negative correlations with their opposite dimensions, were not associated with better emotional outcomes, and were not predicted by regular practice of loving-kindness meditation. The empirical and theoretical analysis indicated that current ideas of SC are not conceptually consistent with ideology of Buddhism.

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