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Development of a shorten version of the 22-item level of self-criticism scale using item response theory and factor analysis

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### **Abstract**

**Purpose:** Excessive self-criticism, along with negative self-evaluation and perceived unfavorable judgments from others, often leads to emotional distress. The Levels of Self-Criticism (LOSC) scale identifies two distinct forms of self-criticism: comparative self-criticism (CSC) and internalized self-criticism (ISC), yet with varying psychometric stability across different populations.

**Method:** This study developed a shortened, psychometrically robust version of the LOSC by employing item response theory (IRT) and factor analysis to enhance the practicality and reliability of the scale.

**Results:** 415 participants completed the baseline survey, and 232 completed the post-test, engaging 83% of females with  $M_{age} = 39.73$ . IRT analysis eliminated 11 items, with the remaining items demonstrating optimal item performance and significant concurrent validity with related measures. This shortened LOSC showed strong test-retest reliability and construct validity.

**Discussion:** This streamlined scale provides a precise tool for assessing self-criticism, contributing to better psychological practice and research.

**Keywords:** Self-criticism, Item Response Theory (IRT), Shorten Version, Factor Analysis

## **Development of a Shorten Version of the 22-item Level of Self-Criticism Scale (LOSC): Using Item Response Theory and Factor Analysis**

Self-criticism is a concept associated with a negative cognitive style that entails a negative self-assessment, accompanied by the belief that others hold a similar adverse perception (Blatt, 1974), and accompanied by adverse emotions such as anger and harshness, self-loathing, fear of others' criticism, rejections and disapproval (Blatt & Homann, 1992; Whelton & Greenberg, 2005). Continuously and rigorously evaluating and judging themselves, concerned about rejection, criticism, and the loss of others' acceptance and approval, are common symptoms of people with high levels of self-criticism (Kannan & Levitt, 2013). These traits result in self-criticism associated with perfectionism or may contribute to maladjustment (Warren et al., 2016). Self-criticism is regarded as a transdiagnostic factor influencing psychotherapy outcomes (Kannan & Levitt, 2013). A multitude of studies indicates that self-criticism correlates with various mental health issues. A substantial body of empirical evidence substantiates the correlation between self-criticism and depressive symptoms (Loew et al., 2020), but is not limited to other transdiagnostic risk factors, such as social anxiety, personality disorders, and eating disorders.

Furthermore, research has identified two distinct forms of self-criticism: the 'hated-self' and the 'inadequate self', each representing unique characteristics of self-criticism and linked to various psychological distress (Gilbert et al., 2004; Halamová et al., 2017). The 'hated-self' manifestation of self-criticism encompasses aggression, self-loathing, and a self-deprecating disposition motivated by an intense urge to eradicate perceived negative traits within oneself. Meanwhile, "inadequate self" denotes an individual preoccupied with shortcomings, opportunities for enhancement, and failures aimed at self-correction. A negative correlation has been observed between the "hated self" and "inadequate self" constructs and self-esteem, life satisfaction, and self-compassion in both clinical and nonclinical populations (Biermann et al., 2021a; Castilho et al., 2015a). Supporting by recent research (Aruta et al., 2021), individuals who internalize negative stereotypes regarding mental health may cultivate excessive self-criticism, potentially exacerbating depressive and anxiety symptoms. Both theoretical and empirical evidence indicate that individuals who assess themselves according to their own idealistic standards are more susceptible to experiencing depression and anxiety (Joeng & Turner, 2015). (Beck, 1964, 1983) further supported the idea that individuals who engage in internal self-criticism tend to selectively process negative information that aligns with their flawed self-perceptions. Those who exhibit heightened levels of internal self-criticism are more likely to self-blame when outcomes do not meet their expectations, which can lead to increased levels of depression and anxiety (Beck, 1983).

It is, therefore, that Beck (Beck & Alford, 2009) has conceptualized self-criticism as one of the three types of negative automatic thoughts present in depression, which is "the self" that represents self-critical thoughts and beliefs. These negative self-focused thoughts will perpetuate automatic thoughts and dysfunctional attitudes, which represent a more stable cognitive level between schemas and automatic thoughts, thus underlies the development of core schema.

Based on Blatt's theory (1974), Thompson & Zuroff (2004) investigated the two forms of self-criticism. One type is comparative self-criticism, which is based on externalized standards and is motivated by the idea that one is inferior to others. Many of the interpersonal outcomes associated with comparative self-criticism are determined by the Depressive Experiences Questionnaire (DEQ). It thus leads to interpersonal hostility and distrust, thus either dominating or shielding oneself from others, aligning with a lower level of Extraversion and Agreeableness in personality traits (Zuroff, 1994; Zuroff & Fitzpatrick, 1995). Another type is internalized self-criticism, which is characterized by a negative assessment of oneself in relation to one's own internal standards. The emphasis is on one's own perception of oneself as lacking rather than on comparisons with others or what other people think of one. Individuals with a high level of internalized self-criticism tend to remain dissatisfied with their high personal standards and are reluctant to recognize their own accomplishments, leading to maladaptive self-esteem and perfectionism (Rice et al., 1998).

The Comparative Self-Criticism (CSC) and Internalized Self-Criticism (ISC) scales were developed and validated by (Thompson & Zuroff (2004) as part of the Levels of Self-Criticism (LOSC). These scales are designed to measure specific aspects of self-criticism, each linked to different personality traits and interpersonal behaviors. CSC exhibits a negative correlation with NEO Extraversion, Agreeableness, and Conscientiousness, indicating that those with higher CSC tend to be less sociable and collaborative. CSC is connected with fearful-avoidant and preoccupied attachment styles; ISC is also associated with insecure attachment types. Nevertheless, these correlations are weaker and affected by Neuroticism. ISC exhibits a more robust link with Self-oriented Perfectionism, whereas CSC is more closely associated with Socially Prescribed Perfectionism. Both scores have a modest connection with DEQ Self-Criticism, with correlations between 0.55 and 0.65. They are substantially correlated with low self-esteem, psychological discomfort, and other traits of perfectionism. These findings emphasize the necessity of differentiating the two types of self-criticism in psychological evaluations, as they reveal the complex effects of self-criticism on personality and interpersonal relationships.

The LOSC is considered a scale that targets both personal and interpersonal self-criticism, providing a comprehensive understanding of facets of self-criticism. Moreover, the LOSC has been shown to be associated with different psychological constructs, such as personality traits, attachment styles, and other clinical-related coping strategies. In addition to the Depressive Experiences Questionnaire (DEQ; Blatt, 1974) and the Dysfunctional Attitude Scale (DAS; Weissman & Beck, 1978), which the Levels of Self-Criticism (LOSC) has referenced and applied in assessing self-criticism within the context of depression, the Forms of Self-Criticizing/Attacking and Self-Reassuring Scale (FSCRS) is another important tool for measuring self-criticism. However, the FSCRS tends to focus on an intrapersonal perspective of self-criticism, addressing aspects such as self-hatred, feelings of inadequacy, and self-assurance. Consequently, using the LOSC scale can offer a more detailed and specific assessment of self-criticism.

Thompson & Zuroff (2004) have also mentioned the need to validate the scale in diverse populations. Additionally, the efficiency and practicality of the self-report measurement model should be enhanced. The LOSC scale consists of 22 items, with 12 items measuring CSC and 10 items measuring ISC. Multiple studies have validated the reliability and validity of short-form scales. These scales are designed to be quicker and easier to administer, making them especially useful in large-scale studies or clinical settings where time and resources are limited. This efficiency can result in higher response rates. (Boateng et al., 2018). To create a short-form scale for measuring the latent construct of LOSC, while ensuring both reliability and validity, it is recommended to use the Item Response Theory (IRT) approach for psychological and health outcome measures. The advantage of IRT in shortening the scale lies in its ability to establish a unified scale for the latent variable assessed through a set of items, ensuring that all items are calibrated to the same standard. As a result, the IRT approach can effectively calibrate two assessments that differ in length. (Xia et al., 2019). As a result, the current study aims to develop and validate the shortened version of the Self-Criticism Scale (LOSC).

## **Method**

### **Study Design and Sampling**

This psychometric validation study analyzed data from a longitudinal mental health survey project, which obtained ethical approval at the Chinese University of Hong Kong. Participants were recruited through social media platforms, including Facebook and Instagram, in 2022. The inclusion criteria were as follows: potential participants should: 1) be aged between 18 to 64, 2) provide informed consent and participate voluntarily, 3) be a resident of Hong Kong and currently living in Hong Kong, 4) be able to read and write Chinese, and 5) have Internet access. Participants were excluded if they reported an official diagnosis of a learning or reading disorder, dementia, or cognitive impairments. Eligible participants were invited to complete an online survey consisting of standardized self-report measures at baseline and at 6-month for the re-test. Part of the data has been reported elsewhere (Lam et al., 2024) . No incentives were provided for participants.

## Measures

*The single-item measure of self-rated mental health (SRMH).* The single-item measure of SMRH asked, “How would you rate your overall mental health?” (1 = poor, 5 = excellent) (Ahmad et al., 2014). Just like the single-item measure of self-rated health (SRH), single-item measures of SMRH have been widely used in the past decades for public health research (Ahmad et al., 2014). The single-item measure of SRMH had moderate to good test-retest reliability and construct validity in the Chinese context too (Fung et al., 2024).

*The Levels of Self-Criticism Scale (LOSC).* The LOSC is a 22-item reliable and valid measure which assesses the levels of negative self-criticism with two main factors: comparative self-criticism (CSC) and internalized self-criticism (LSC) (Thompson & Zuroff, 2004b). The LOSC was translated into Chinese using a collaborative approach (Chan et al., 2017; Khosravani & Dastjerdi, 2013), with a team of linguist and social workers; its face validity was confirmed by PhD-level psychology and nursing researchers.

*The Self-compassion Scale (SCS).* The SCS, which has 26 items, is a reliable and valid measure of self-compassion with six factors, including self-kindness, common humanity, mindfulness, self-judgment, isolation, and overidentification (Neff et al., 2019). The Chinese version of the SCS was also found to have good internal consistency ( $\alpha = .84$ ) and construct validity, and its six-factor structure was also confirmed (Chen et al., 2011).

*The Acceptance and Action Questionnaire II (AAQ-II).* The AAQ-II is a 7-item measure that assesses the levels of experiential avoidance; higher total scores indicate lower levels of psychological flexibility. The scale shows good internal consistency, test-retest reliability and construct validity (Biermann et al., 2021a). Zhang et al. (2014) reported that the Chinese version of the AAQ-II has adequate reliability, a one-factor structure, and good construct validity (Zhang et al., 2014).

## Data Analysis

The raw data was managed using the SPSS Software, Version 28.0, and was used to summarize the mean and standard deviation of all outcome variables, as well as investigate the concurrent validity of the shortened version LOSC scale using the intra-class correlation coefficient with other outcomes variables (i.e. self-compassion, mental health, and acceptance and action). The development and validation of the shortened LOSC consists of the following steps,

Firstly, based on the refinement of clinical assessment instruments suggestions by Floyd and Widaman (Floyd & Widaman, 1995), an investigation of the 22-item LOSC dimensions was conducted using the confirmatory factor analysis (CFA) to support the prior hypothesized factor structure in fitting in the current empirical data set. The goodness of fit indicators of CFA include Comparative Fit Index (CFI) and the Tucker–Lewis Index (TLI) rated 0.90 or above; Standardized Root Mean Square Residual (SRMR) rated 0.08 or lower, and the Root Mean Square Error of Approximation (RMSEA) fall between 0.05 and 0.08, with a 90% confidence interval (Hu & Bentler, 1999).

The analysis of the IRT was conducted using R software, employing packages such as *mirt*, *knitr*, and *dplyr*, and utilizing a graded response model (GRM). The focus was on evaluating the fit and appropriateness of each item within the scale. This evaluation assessed item discrimination parameters ('a') and item difficulty or location parameters ('b'). Items were deemed to fit adequately if their information-weighted (infit) and outlier-sensitive (outfit) statistics ranged between 0.7 and 1.3, indicating optimal item performance.

Item performance was visualized through item information curves (IIC) and item characteristic curves (ICC). The IICs portrayed the amount of information each item contributed across the spectrum of the latent trait, with higher information values indicating better coverage of the trait at various levels. The ICCs illustrated the relationship between the latent ability and item performance across the designated response categories (1-5). Items that demonstrated high peaks and covered a broad range of the ability continuum were noted for their precision in measuring across diverse skill levels.

The construct validity of the shortened version LOSC scale was further examined using the indices commonly employed in confirmatory factor analysis. The goodness of fit analysis was

also applied to the measurement model of the shortened scale, ensuring that the revised model met the necessary statistical standards for reliable and valid measurement.

### **Results**

At baseline, a total of 412 participants met all inclusion criteria and provided a valid response. Of these participants, their ages ranged from 18 to 64 ( $M = 39.73$ ;  $SD = 12.75$ ). Most of them were female (83.0%) and unmarried (62.6%); 59.6% had an undergraduate degree; 29.1% reported seeing a psychiatrist in the past year. At 6-month follow-up, 232 participants completed the follow-up survey.

The original scale of the two-factor LOSC showed a less adequate good-fit with the criteria of  $\chi^2_{188}=904.57$ ,  $\chi^2/df=4.81$ ,  $TLI=0.85$ ,  $CFI=0.82$ ,  $SRMR=0.08$ , and  $RMSEA=0.095$ , in the confirmatory factor analysis (CFA). The obtained factor loadings showed item 14 loaded to a third factor, not aligning with the original two-dimension-model.

#### **The Item Response Theory Analysis**

The IRT analysis was conducted to indicate the less fit items, thus eliminating from the original LOSC, creating a shortened version of LOSC simultaneously, and enhancing the construct validity of LOSC among the current population. The relationship between each item's performance and latent ability for the two factors is determined by the graded response model's item parameters. Among the items of internalized self-criticism, the slope of most items is at a moderate level, except items 11,13 and 19 showed ( $a = 1.00-1.42$ ), indicating these items endorsed a lower level of internalized self-criticism. Among the items of comparative self-criticism, items 6,8,12,16,21,22 ( $a < 1.00$ ) showed the flattest slope and lower location parameters than other items. Moreover, item 14 and 20 are the next two flattest slopes ( $a = 1.18 - 1.24$ ). Please refer to Table 1 for the Summary of the Graded Response Model Item Parameters. Please refer to Figure 1 -2 for the Item characteristic curves. Furthermore, the original scale's item information functions (IIFs) are presented in Figures 3–4. IIFs exhibited the accuracy and data conveyed by each element. Items with the greatest information for each scale were chosen. Therefore, items 6,8,12,14,16,21, and 22 from CSC and items 11,13 and 19 from ISC, with less information provided in the LOSC scale, were removed for further validation.

#### **Validation of the Shortened Version of the LOSC scale**

The proposed removing items were deleted from the original scale, and the retained items were engaged in the confirmatory factor analysis to conduct the construct validation analysis. With Items 2,4,10,18,20 from CSC and Items 1,3,5,7,9,15,17 from LSC remaining, the CFA showed a satisfying model fit index, with  $\chi^2_{53}=303.91$ ,  $\chi^2/df=5.7$ ,  $TLI=0.92$ ,  $CFI=0.93$ ,  $SRMR=0.046$ , and  $RMSEA=0.11$ . The item fit analysis also indicated that the shortened LSC and CSC subscale items showed a satisfying fit index with CFI and TLI above 0.9, and SMRS ranged from 0.05 to 0.06. Figure 5 also illustrates the Test Information Functions (TIF) figure, which displays the aggregation of item-level data. The shortened version of the 11-item LOSC scale demonstrated satisfactory internal consistency, with both Cronbach's alpha and McDonald's omega values of 0.83 for CSC and 0.93 for LSC. The test-retest reliability compared to data collected 6 months later showed a significant intra-class correlation of  $r = 0.82$ . Also, the shortened LOSC was negatively correlated with self-compassion ( $r = -0.79$ ) and positively correlated with the self-judgement subscale of self-compassion ( $r = 0.74-0.75$ ) significantly, thus indicating discriminant and convergent validity, respectively. Please refer to Table 2 for the Correlation Matrix Summary.

#### **Discussion and Applications to Practice**

The current study aims to shorten the 22-item LOSC using both factor analysis and Rasch modeling psychometric analyses. The original 22-item LOSC did not show a good fit two-factor model among the current data. Through the analysis and elimination using the IRT analysis, three items from ISC and eight items from CSC were deleted, and the remaining 11 items showed satisfying goodness of fit index in the confirmatory factor analysis, as well as indicating significant concurrent validity with other related variables. The current study has also managed to conduct a test re-test reliability examination six months after the baseline test and resulting in significant test re-test reliability.

Three items from the internalized self-criticism subscale were deleted, and they are item 11: “I don't often worry about the possibility of failure.” Item 13: “When I don't succeed, I find myself wondering how worthwhile I am.” Item 19: “I frequently compare myself with my goals and ideals.” Item 11 showed a low discrimination parameter, suggesting the item does not significantly contribute to distinguishing individuals who vary in their levels of internalized self-criticism. This item, emphasizing “worry about failure, may not immediately engage with the fundamental elements of self-criticism as thoroughly as other items, which may be more associated with general anxiety or concerns rather than criticizing oneself. Item 13 showed a slightly better discrimination effect than Item 11 yet still falls into a low range. While this item more directly addresses self-worth evaluations following failure, its moderate discrimination might suggest other items more effectively distinguish internalized self-criticism than Item 13. Despite Item 19 showing a relatively moderate capability to discriminate among levels of internalized self-criticism compared to Items 11 and 13, the flat item information functions slope suggests it has limited utility. It can be considered that Item 19, mentioning the act of comparison with goals and ideals, might also capture aspirational or normative evaluations rather than purely critical ones, potentially diluting its impact in measuring self-criticism.

Eight items are deleted from the comparative self-criticism subscale, and they are Item 6 “I don't spend much time worrying about what other people will think of me.”, Item 8 “If you are open with other people about your weaknesses, they are likely to still respect you.”, Item 12 “I am confident that most of the people I care about will accept me for who I am.”, Item 14 “If you give people the benefit of the doubt, they are likely to take advantage of you.”, Item 16 “I am usually comfortable with people asking me about myself.”, Item 21 “Being open and honest is usually the best way to keep others' respect.”, and Item 22 “There are times that it is necessary to be somewhat dishonest in order to get what you want.” All deleted items have a low slope parameter, ranging from 0.029 – 1.01. Item 6 may be considered as more aligned with anxiety and concern about others' opinions yet not directly lead to a comparative aspect of self-criticism. Items 8, 12, 14, 16, and 21 are items that focus on whether a significant other accepting oneself that derives self-worth might not also lead to a comparative aspect of self-criticism. Item 22 may also be considered as an instrumental behavior of preventing criticism yet being indirect to represent self-criticism. Removing these items highlights the necessity of a scale that accurately and efficiently assesses the desired construct, using discriminative and theoretically consistent items. Eliminating these items sharpens the scale's emphasis, improving its reliability and validity in evaluating how individuals critically evaluate themselves in relation to others or themselves. This enhancement facilitates the LOSC scale as a reliable instrument for research and therapeutic evaluations concerning self-criticism.

IRT is considered a common tool in scale refinement that analyzes item-level data to identify and eliminate less informative items. It provides detailed information regarding each item's properties, including difficulty, capability, and discrimination. This enables researchers to identify items that do not significantly contribute to measuring the underlying construct, enhancing scale precision and minimizing participant burdens such as time constraints, fatigue bias, and confusion (Edelen & Reeve, 2007). Moreover, the combination of IRT and CFA represents a robust methodological approach to scale refinement. CFA is used to validate the scale's factor structure, ensuring that the items align well with the theoretical constructs they are intended to measure. Together, these methods ensure that the scale is both psychometrically sound and practically useful. This rigorous approach is well-documented in the literature, highlighting its effectiveness in developing reliable and valid measurement instruments (Widaman & Grimm, 2014).

It is, therefore, the shortened version of LOSC in 11 items, which is expected to facilitate clinical assessment, treatment planning, and monitoring with fewer time constraints and provide relevant treatment for dealing with negative core beliefs and acceptance actions. The shortened version could be applied and explored in various contexts, such as different population samples, relationships with other psychological constructs or models, examining the effectiveness of interventions, and conducting cross-cultural studies with fewer burdens.

Apart from clinical assessment, applying the shortened LOSC in the field of social work can significantly improve the precision of client assessments. By focusing on the most informative items, social workers can more accurately identify levels of self-criticism, which are often linked to various mental health issues such as depression and anxiety. This precise identification can lead to more tailored intervention or counselling strategies that address specific aspects of self-criticism, thus potentially enhancing therapeutic outcomes or accurate clinical referrals. In practical terms, social workers can utilize the findings from this revised scale to advocate for and implement strength-based approaches that encourage positive self-reflection and self-acceptance among clients. This is particularly relevant in community social work, where empowerment and resilience building are key components of practice. Notwithstanding, a limitation of the current study is its limited coverage of demographics and cultural contexts, with a predominance of female participants, particularly among Chinese, which may limit the generalizability of the findings. Moreover, the use of convenient sampling through social media recruitment poses additional challenges to the generalizability of the findings. The reliance on a convenience sample through social media may create biases associated with the digital divide – the disparity between populations with access to digital technology and those without. This difference may bias the sample towards younger, more urban, and technologically proficient individuals, potentially neglecting elderly adults who may possess distinct viewpoints or experiences relevant to self-criticism. Further validation should be conducted among diverse population samples, as well as a more stratified sampling technique to enhance the scale's applicability and generalizability. To conclude, the development and validation of the shortened version of the LOSC has made a significant contribution to the literature on self-criticism, particularly in measuring and understanding self-criticism. The shortened version, validated using the combination of IRT and CFA, provides robust evidence of applying the scale in both clinical and research settings and can be examined with various psychological prevalence, such as depression and anxiety. However, it will be beneficial to conduct further cross-cultural research and intervention studies, enhancing our understanding of how self-criticism manifests in different cultural contexts.

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**Table 1**  
*The Summary of the Graded Response Model Item Parameters*

	<b>a</b>	<b>b1</b>	<b>b2</b>	<b>b3</b>	<b>b4</b>	<b>b5</b>	<b>b6</b>
<b>Internalised SC</b>							
LOSC 1	3.03	-2.03	-1.38	-0.86	-0.42	0.31	0.91
LOSC 3	3.77	-2.07	-1.25	-0.83	-0.45	0.22	0.78
LOSC 5	3.58	-1.76	-1.10	-0.63	-0.23	0.33	0.88
LOSC 7	3.79	-2.09	-1.32	-0.82	-0.43	0.14	0.76
LOSC 9	2.33	-2.12	-1.14	-0.63	-0.12	0.60	1.20
<b>LOSC 11</b>	<b>1.00</b>	<b>-3.93</b>	<b>-2.60</b>	<b>-1.24</b>	<b>-0.32</b>	<b>0.57</b>	<b>1.75</b>
<b>LOSC 13</b>	<b>1.33</b>	<b>-3.35</b>	<b>-2.10</b>	<b>-1.32</b>	<b>-0.55</b>	<b>0.35</b>	<b>1.47</b>
LOSC 15	3.32	-2.11	-1.26	-0.72	-0.32	0.28	0.94
LOSC 17	2.69	-1.46	-0.81	0.31	0.14	0.89	1.50
<b>LOSC 19</b>	<b>1.42</b>	<b>-2.45</b>	<b>-1.40</b>	<b>-0.74</b>	<b>0.01</b>	<b>0.090</b>	<b>1.89</b>
	<b>a</b>	<b>b1</b>	<b>b2</b>	<b>b3</b>	<b>b4</b>	<b>b5</b>	<b>b6</b>
<b>Comparative SC</b>							
LOSC 2	3.18	-1.76	-1.07	-0.65	-0.30	0.16	0.69
LOSC 4	1.88	-2.13	-1.36	-0.92	-0.44	0.22	0.98
<b>LOSC 6</b>	<b>0.66</b>	<b>-4.62</b>	<b>-2.43</b>	<b>-1.37</b>	<b>-0.45</b>	<b>0.94</b>	<b>3.29</b>
<b>LOSC 8</b>	<b>0.56</b>	<b>-5.23</b>	<b>-2.91</b>	<b>-0.73</b>	<b>1.02</b>	<b>2.75</b>	<b>4.86</b>
LOSC 10	1.93	-1.91	-1.05	-0.60	-0.24	0.37	1.03
<b>LOSC 12</b>	<b>0.89</b>	<b>-2.78</b>	<b>-1.35</b>	<b>-0.06</b>	<b>1.09</b>	<b>1.87</b>	<b>3.37</b>
LOSC 14	1.01	-3.24	-1.89	-1.01	0.02	0.98	1.91
<b>LOSC 16</b>	<b>0.29</b>	<b>-9.24</b>	<b>-4.48</b>	<b>-0.79</b>	<b>2.29</b>	<b>6.24</b>	<b>10.87</b>
LOSC 18	1.87	-1.62	-0.76	-0.24	0.32	1.09	1.87
LOSC 20	1.24	-2.77	-1.63	-1.03	-0.38	0.69	1.79
<b>LOSC 21</b>	<b>0.37</b>	<b>-3.55</b>	<b>-0.50</b>	<b>2.25</b>	<b>5.11</b>	<b>7.60</b>	<b>10.35</b>
<b>LOSC 22</b>	<b>0.52</b>	<b>-4.97</b>	<b>-2.78</b>	<b>-1.73</b>	<b>-0.28</b>	<b>2.00</b>	<b>3.80</b>

Note. LOSC = Levels of Self-Criticism Scale

**Table 2***Correlation Matrix Summary*

	<b>SRMH</b>	<b>SC</b>	<b>AAQ</b>	<b>CSC</b>	<b>ICS</b>	<b>LOSC</b>
<b>SRMH</b>	1.00					
<b>SC</b>	.56**	1.00				
<b>AAQ</b>	-.62**	-.73**	1.00			
<b>CSC</b>	-.51**	-.78**	.73**	1.00		
<b>ICS</b>	-.47**	-.74**	.70**	.83**	1.00	
<b>LOSC</b>	-.51**	-.79**	.74**	.94**	.97**	1.00

Note. SRMH = Single-item measure of self-rated mental health; SC = Self-compassion; AAQ = The Acceptance and Action Questionnaire; CSC = Comparative Self-criticism; LSC = Internalized Self-criticism; LOSC = Levels of Self-Criticism Scale