NEGATIVE COGNITIVE STYLE AS A MEDIATOR BETWEEN SELF-COMPASSION AND HOPELESSNESS DEPRESSION

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We examined the relationship between self-compassion and hopelessness depression. The participants were 418 students at a technology college in Hunan, China, who completed questionnaires to measure self-compassion, hopelessness depression, and negative cognitive style. The results showed that self-compassion was negatively associated with both hopelessness depression and negative cognitive style, and negative cognitive style emerged as a significant mediator in the relationship between self-compassion and hopelessness depression. The results suggest that self-compassion had buffering effects on hopelessness depression through its positive effects on negative cognitive style. The findings in the present study can help expand current understanding of self-compassion and hopelessness depression.

Keywords: self-compassion, hopelessness depression, negative cognitive style, Chinese undergraduates.

Self-compassion, a concept in Buddhist thought, involves being moved by, and desiring to alleviate, one’s own distress, and entails three main components: (a) self-kindness, which is being kind and understanding toward oneself in instances
of pain or failure rather than being harshly self-critical; (b) common humanity, which is perceiving one's experiences as part of the larger human experience rather than seeing them as separating and isolating; and (c) mindfulness, which is holding painful thoughts and feelings in balanced awareness rather than over-identifying with them (Neff, 2003b). Though self-compassion and self-esteem both involve having a positive attitude toward, and relationship with, oneself, they are not identical. Self-compassion is not based on the performance evaluations of self and others, or on congruence with ideal standards (Neff, 2011), whereas self-esteem is a product of “perceived competence in domains of importance” (James, 1890, p. 193). The correlations reported by researchers between self-compassion and global self-esteem range from $r = .56$ (Leary, Tate, Adams, Batts, & Hancock, 2007) to $r = .68$ (Neff & Vonk, 2009). When researchers have controlled for self-esteem, self-compassion has still been identified as having a negative association with self-rumination, anger, personalizing, and negative affect. Moreover, when researchers have controlled for the role of self-compassion, the role of self-esteem has often been reduced below the statistically significant level (Neff, 2011). Self-compassion may be a key source of the optimal or true self-esteem extolled by some theorists (Kernis, 2003; Neff, 2003a), and may offer similar mental health benefits to self-esteem, but with fewer disadvantages (Neff, 2011).

Researchers have reported that self-compassion is negatively correlated with depression, even after controlling for other variables such as self-criticism and self-esteem (Neff, Rude, & Kirkpatrick, 2007). Some researchers have explored the mechanism of the relationship between self-compassion and depression, and found it was partially mediated by brooding and worrying (Raes, 2010), and by a sense of decreased coherence (Ying, 2009). As self-compassion has been shown to be associated with psychological health, many therapeutic interventions that increase self-compassion have been developed, including compassionate mind training (CMT; Gilbert, 2009), mindfulness-based stress reduction (MBSR; Kabat-Zinn, 1991), and mindful self-compassion (MSC; Neff & Germer, 2013). However, no empirical research has yet been published on whether or not self-compassion relates differently to different subtypes of depression (Barnard & Curry, 2011).

According to the theory-based approach to the classification of depression, Abramson, Metalsky, and Alloy (1989) proposed the hopelessness theory of depression. In the hopelessness theory hopelessness is viewed as a proximal sufficient cause of the symptoms of the depressive subtype. Hopelessness includes two core elements: (a) negative expectations about the occurrence of highly valued outcomes (a negative outcome expectancy), and (b) expectations of helplessness about changing the likelihood of occurrence of these outcomes (a helplessness expectancy). The hopelessness theory of depression is classified
as a cognitive diathesis-stress model (Alloy, Just, & Panzarella, 1997). It is hypothesized in this model that individuals who exhibit a general tendency to infer that negative life events arise from stable and global causes, will be led by this inference to further negative consequences, or to implying negative characteristics about themselves. These individuals will be vulnerable to developing the symptoms of hopelessness depression when they confront negative life events. Most of the researchers who have undertaken empirical studies on the hopelessness theory of depression have focused on tests of the theory’s cognitive vulnerability or cognitive diathesis-stress hypotheses, and their findings have supported the theory’s predictions for depression in general (Alloy, Lipman, & Abramson, 1992; Spangler, Simons, Monroe, & Thase, 1993). It was our view that the focus of current research on the hopelessness theory of depression should now be on therapy and prevention.

We designed the present study to integrate self-compassion and the hopelessness theory of depression to examine the relationship of self-compassion and hopelessness depression. We reasoned that self-compassion is a protective factor in hopelessness depression, and that an increase in self-compassion would decrease the symptoms of hopelessness depression. We hypothesized that self-compassion would be negatively related with hopelessness depression. In view of the significant relationship between self-compassion and cognitive patterns (Barnard & Curry, 2011), we hypothesized that self-compassion would be significantly related with negative cognitive style. Moreover, in previous research negative cognitive style has been found to be correlated with hopelessness depression (Haefel, 2010). Wen, Chang, Hau, and Liu (2004) proposed that a variable functions as a mediator when it meets the following conditions: (a) variations in levels of the independent variable significantly account for variations in the presumed mediator, and (b) variations in the mediator significantly account for variations in the dependent variable. According to these conditions, we hypothesized that negative cognitive style would mediate the relationship between self-compassion and hopelessness depression.

Method

Participants and Procedure
At a technology college in Hunan, China, we recruited 426 students who had consented to take part in the study. All of these participants completed three questionnaires: the Negative Cognitive Style Questionnaire (CSQ-SF; Meins, McCarthy-Jones, Fernyhough, Lewis, Bentall, & Alloy, 2012), the Hopelessness Depression Symptom Questionnaire (HDSQ; Metalsky & Joiner, 1997), and the Self-Compassion Scale (SCS; Neff, 2003a). The final eligible sample comprised 418 students (109 men and 309 women) who ranged in age from 16 to 23
years ($M = 19.17, SD = 1.04$). The students completed all of these tests in a mental health class. The researchers described the research purposes briefly to participants.

**Measures**

**Self-Compassion Scale (SCS).** The SCS (Neff, 2003a) is a 26-item scale designed to measure compassion towards oneself. The instrument is used to assess six different aspects of self-compassion: self-kindness, self-judgment, mindfulness, over-identification, common humanity, and isolation. The self-kindness subscale and the self-judgment subscale represent a positive and a negative aspect of self-kindness, respectively. Likewise, the mindfulness subscale and the over-identification subscale represent a positive and negative aspect of mindfulness, respectively, and the common humanity subscale and the isolation subscale represent a positive and negative aspect of common humanity, respectively. Items are rated using a Likert-type scale ranging from 1 = *almost never* to 5 = *almost always*. The SCS has been shown to have good test-retest reliability (Cronbach’s $\alpha = .93$) and validity. The Chinese version of the SCS was translated and validated by Chen, Yan, and Zhou (2011). Internal consistency in the current sample was good (Cronbach’s $\alpha = .81$).

**Hopelessness Depression Symptom Questionnaire (HDSQ).** The 32-item HDSQ (Metalsky & Joiner, 1997) is a self-report inventory that is used to assess hopelessness depressive symptoms. Total scores on the HDSQ can range from 0 to 96, with higher scores indicating more serious hopelessness depressive symptoms. The HDSQ has been shown to have good reliability and validity. The Chinese version of HDSQ was translated and validated by Yi (2008). Internal consistency in the current sample was good (Cronbach’s $\alpha = .88$).

**Short-form version of Cognitive Style Questionnaire (CSQ-SF).** The CSQ-SF (Meins et al., 2012) is a 72-item self-report questionnaire that is used to measure three components of cognitive vulnerability to hopelessness theory. It is used to assess participants’ causal attributions for eight hypothetical negative events on dimensions of internality, stability, and globality. In addition, participants rate the probable consequences of each event and the self-worth implications of each hypothetical event. Items are rated using a Likert-type scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Higher scores indicate a more negative cognitive style. The CSQ-SF has been found to have satisfactory internal reliability (Cronbach’s $\alpha = .85$), test-retest reliability ($r = .91$), and validity. The Chinese version of the CSQ-SF was developed by using the back-translation method. Internal consistency in the current sample was good (Cronbach’s $\alpha = .81$).
Data Analysis

Structural equation modeling (AMOS version 7.0) was used in the present study. We employed multiple fit indices to indicate the quality of the model. A ratio of less than 3.0, comparative fit index (CFI), goodness-of-fit index (GFI), and Tucker-Lewis index (TLI) values greater than .95, and a root mean square error of approximation (RMSEA) value of less than .05 indicate a good model fit to the data (Schumacker & Lomax, 2004).

Results

Preliminary Analyses

Descriptive statistics and intercorrelations for all variables included are shown in Table 1. Consistent with our predictions, scores on the self-compassion subscales were negatively associated with scores on both the HDSQ and the CSQ-SF, with the exception of scores on the common humanity subscale, which were not significantly related with scores on the self-worth implications subscale. In addition, scores on the negative cognitive style subscales were significantly associated with the scores on the HDSQ.

Table 1. Means, Standard Deviations, and Correlations for Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-kindness</td>
<td>32.48</td>
<td>5.42</td>
<td></td>
<td>0.273**</td>
<td>0.444**</td>
<td>-0.233**</td>
<td>-0.223**</td>
<td>-0.108*</td>
<td>-0.241**</td>
</tr>
<tr>
<td>Common humanity</td>
<td>26.28</td>
<td>5.22</td>
<td></td>
<td>0.399**</td>
<td>-0.233**</td>
<td>-0.221**</td>
<td>-0.054</td>
<td>-0.348**</td>
<td></td>
</tr>
<tr>
<td>Mindfulness</td>
<td>26.10</td>
<td>4.08</td>
<td></td>
<td>-0.269**</td>
<td>-0.259**</td>
<td>-0.110*</td>
<td>-0.404**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cause</td>
<td>129.25</td>
<td>12.49</td>
<td></td>
<td></td>
<td>0.593**</td>
<td>0.417**</td>
<td>0.260**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative consequences</td>
<td>21.09</td>
<td>3.65</td>
<td></td>
<td></td>
<td></td>
<td>0.289**</td>
<td>0.349**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-worth implications</td>
<td>52.01</td>
<td>7.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.108*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hopelessness depression</td>
<td>17.76</td>
<td>10.38</td>
<td></td>
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</table>

Note. N = 418; * p < .05, ** p < .01.

Testing the Hypotheses

The results of the mediation model are shown in Figure 1. The fit statistics for the structural model indicated that there was a good fit to the data ($\chi^2/df = 1.933$, CFI = .979; GFI = .984; TLI = .963; RMSEA = .047). The path between self-compassion and hopelessness depression was significant and negative ($p < .001$), indicating that greater self-compassion was associated with fewer and less serious hopelessness depression symptoms. Furthermore, the path between self-compassion and cognitive style was significant and negative ($p < .001$), suggesting that students who have a high level of self-compassion use a less negative cognitive style when facing negative life events. Moreover, the path between cognitive style and hopelessness depression was significant and positive.
(p < .05), indicating that students who possess a more negative cognitive style have more, and also more serious, hopelessness depression symptoms.

![Figure 1. The structural equation model. Note. Parameters estimates for the structural paths are standardized path coefficients.]

**Discussion**

The results obtained in the present study were consistent with our hypotheses. Neff (2003a) has demonstrated that higher scores on the Self-Compassion Scale are consistently related to lower scores on the Beck Depression Inventory and the Self-Rating Depression Scale. Other researchers have also demonstrated that, by promoting emotional resilience, self-compassion is a major protective factor in good mental health (Neff, Rude, & Kirkpatrick, 2007; Raes, 2010). Results in the present research suggested that greater self-compassion was associated with fewer and less serious symptoms of the specific subtype of depression, termed hopelessness depression.

As has been reported in previous research (Abela et al., 2011; Abramson, Metalsky, & Alloy, 1989; Haeffel, 2010; Lee, Hankin, & Mermelstein, 2010), in our study we identified negative cognitive style as a risk factor for depression. According to our findings, individuals with a more negative cognitive style than other participants had more, and more serious, hopelessness depressive symptoms.

Our results also showed that self-compassion had a significant link with negative cognitive style (measured using the CSQ-SF) featured in hopelessness theory. Consistent with our hypothesized model, negative cognitive style partially mediated the relationship between self-compassion and symptoms of hopelessness depression. A self-compassionate individual is more likely to have a
less negative cognitive style, which, in turn, is linked with fewer and less serious symptoms of hopelessness depression. Although there may be other mediators of the relationship between self-compassion and hopelessness depression, we believe that the findings in the present study are meaningful. First, such findings will contribute to the literature on these variables by providing a more comprehensive understanding of the relational mechanism of these psychological constructs, and will extend the theoretical scope of the hopelessness theory of depression. Second, the findings in the present study can provide evidence for introducing intervention methods based on self-compassion to hopelessness depression treatment regimes. Researchers have found that intervention methods of self-compassion are effective in enhancing mental health (Leary et al., 2007; Neff & Germer, 2013; Neff, Kirkpatrick, & Rude, 2007). Third, our findings in the present study will contribute to understanding of the adaption of self-compassion into the Chinese culture.

The limitations in the present study are, firstly and, we believe, most importantly, that it was correlational and cross-design in nature. Causal relationships cannot be inferred from our results. Second, the participants were undergraduates, nonclinical, and mainly male. Third, we used only self-report measures, which are highly subjective, to assess the variables of interest. Future researchers should employ a longitudinal design to examine the causation between these variables and, in the light of the limitations to which we have drawn attention, current results should be interpreted with caution.

References


