Self-compassion and life satisfaction: The mediating role of hope

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A B S T R A C T

The present study investigated the relationship between self-compassion, hope and life satisfaction in a sample of Chinese adults. Three hundred and twenty adults completed the Self-Compassion Scale (SCS), the State Hope Scale (SHS) and the Satisfaction with Life Scale (SWLS). The structural equation model's results showed that self-compassion was positively associated with hope and life satisfaction, that hope was positively associated with life satisfaction, and also that hope fully mediated the positive relationship between self-compassion and life satisfaction. Additionally, multi-group analyses showed that the structural model was not moderated by gender or age. The present study highlights the mediating role of hope as an underlying mechanism between self-compassion and life satisfaction. The theoretical and practical implications, as well as the limitations of the present study, are discussed.

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1. Introduction

Self-compassion is a healthy and positive self-attitude involving “being open to and moved by one’s own suffering, experiencing feelings of caring and kindness towards oneself, taking an understanding, nonjudgmental attitude towards one’s inadequacies and failures, and recognizing that one’s own experience is part of the common human experience” (Neff, 2003a, 2003b). Accordingly, self-compassion consists of three main components: self-kindness (treating oneself with understanding rather than with harsh self-judgment), common humanity (seeing one’s imperfections as a part of human condition rather than viewing them as isolating), and mindfulness (being aware of present painful thoughts and feelings in a balanced way rather than over-identifying with them) (Neff, 2003a, 2003b). Maintaining compassion for oneself encourages individual to take actions towards personal growth in order to promote well-being (Neff, 2003a). Growing evidence suggests that self-compassion is robustly related to multiple aspects of well-being (see Barnard & Curry, 2011 for a review).

Despite the well-established relationship between self-compassion and well-being, research has attempted to explore the underlying mechanisms in the last few years. However, much of the research predominantly focused on how self-compassion decreased the negative components of well-being, such as depression (Raes, 2010), anxiety (Arimitsu & Hofmann, 2015) and perceived stress (Finlay-Jones, Rees, & Kane, 2015). Little research has addressed the potential mechanism underlying the positive relationship between self-compassion and life satisfaction, a positive well-being outcome. The present study intended to examine whether hope can mediate the positive relationship between self-compassion and life satisfaction.

1.1. Self-compassion and life satisfaction

Self-compassion promotes well-being through helping individuals feel cared for, connected, and emotionally calm when one undergoes difficulties and hardship (Gilbert, 2005). Specifically, self-compassion helps an individual rectify maladaptive patterns of thought and behavior (Neff, 2003a), and protects against failure with adaptive coping strategies (Neff, Hsieh, & Dejitterat, 2005). Therefore, self-compassion provides an individual with motivating force for growth and cultivates well-being (Neff, 2003a). Empirically, higher self-compassion is linked with decreased negative affect (Neff, Kirkpatrick, & Rude, 2007), anxiety and depression (Arimitsu & Hofmann, 2015), and increased positive affect and happiness (Neff et al., 2007). Abundant evidence suggests that self-compassion is beneficial for increasing life satisfaction, which refers to the global cognitive evaluations of one’s life (Diener, Emmons, Larsen, & Griffin, 1985). Correlational studies show that self-compassion is positively associated with life satisfaction (Neely, Schallert, Mohammed, Roberts, & Chen, 2009; Seligowski, Miron, & Orcutt, 2014; Van Dam, Sheppard, Forsyth, & Earleywine, 2011; Wei, Liao, Ku, & Shaffer, 2011), and this positive association has been demonstrated across cultures, such as American, Thai, and Chinese (Neff, Pisitsungkagarn, & Hsieh, 2008; Yang, 2016). Further, self-compassion interventions have also...
been found to increase individuals' satisfaction with life (Neff & Germer, 2013).

As for the underlying mechanism between self-compassion and life satisfaction, we were aware of only one study suggesting that positive automatic thought was a mediator (Arimitsu & Hofmann, 2015). Yet, the model is still insufficient in explaining how self-compassion conveys its beneficial effects for life satisfaction. Self-compassion not only emphasizes on the positive cognitive appraisal of oneself, but also highlights the motivating function in taking actions towards personal growth (Neff, 2003a). Thus, the positive automatic thought probably couldn’t explain the relationship fully (Arimitsu & Hofmann, 2015). In the present study, we speculated that hope, a broader cognitive-motivational state, might account for the mechanism underlying the self-compassion–life satisfaction relationship.

1.2. Hope as a mediator between self-compassion and life satisfaction

Hope is conceptualized as individual’s perceived confidence to produce plausible routes to desired goals (pathway, the cognitive component), and perceived motivation to use those pathways to begin and maintain efforts in pursuing desired goals (agency, the motivational component) (Snyder, 2002). Individuals with higher hope are more affirmative with their goals and keep higher motivation in pursuing them (Snyder, 2002), and tend to be satisfied with what have been achieved in life (Kwock, Cheng, & Wong, 2015). The majority of cross-sectional studies suggest that hope is strongly correlated with greater life satisfaction (Bailey, Eng, Frisch, & Snyder, 2007; Wong & Lim, 2009). Besides, longitudinal research indicates that hope is an important predictor of latter life satisfaction after controlling the initial life satisfaction (Marques, Lopez, & Mitchell, 2013; Marques, Lopez, & Pais-Ribeiro, 2011).

Neff and Faso (2015) recently provided empirical evidence regarding the positive link between self-compassion and trait hope in a relatively small sample among parents of children with autism, suggesting that parents with higher levels of self-compassion were more hopeful about the future. Relatedly, a study by Sears and Kraus (2009) demonstrated that self-compassionate loving-kindness meditation increased the possibility of identifying desirable goals and confidence about producing effective pathways to achieve them, which, in turn, effectively increased meditator’s level of perceived hope. Moreover, another study suggested that individuals with higher self-compassion perceived greater competence, make greater effort in pursuing goals (agency) and how confident they agree or disagreement with each statement (e.g., “I′m tolerant of my own flaws and inadequacies”) on a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always). The Chinese version of the SCS has been demonstrated to be a reliable measurement in Chinese populations (e.g., Yang, 2016).

2.2. Measures

2.2.1. Self-compassion

The self-compassion was measured through Self-Compassion Scale (SCS; Neff, 2003b), which contains 26 items and assesses the three components of self-compassion and their negative counterparts: self-kindness (self-judgment), common humanity (isolation), and mindfulness (over-identification). Participants rated each item (e.g., “I′m tolerant of my own flaws and inadequacies”) on a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always). The Chinese version of SCS was employed for hypotheses test. In the SEMs, the

1.3. The present study

The present study aims to investigate the relationship between self-compassion, hope and life satisfaction, and to examine whether hope is a mediating path from self-compassion to life satisfaction. Besides, a previous study suggested that age, but not gender, moderated the relationship between self-compassion and well-being in adolescents (Bluth & Blanton, 2015). However, it is unclear whether gender and age differences exist in the underlying mechanism in adults. Thus, we also intend to use multi-group analyses to test whether gender and age influence the relationships among self-compassion, hope and life satisfaction in adults. Based on the aforementioned studies, we propose the following hypotheses: (1) self-compassion is positively associated with hope and life satisfaction; (2) hope positively associated with life satisfaction; (3) hope mediates the positive relationship between self-compassion and life satisfaction.

2. Method

2.1. Procedures and participants

The study was conducted online via a Chinese survey website (http://www.sojump.com). We received 335 questionnaires, and we deleted 15 questionnaires, which rated the same option on all the scales. The valid sample included 320 Chinese adults (146 were men; mean age = 25.45 years, SD = 4.10, age range: 18–48; 46 married). Participants also reported the occupation condition, monthly income and education level.1 The demographic variables were controlled for analysis in this study.

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combination scores of three self-compassion components (self-kindness and the reverse scored self-judgment, common humanity and the reverse scored isolation, and mindfulness and the reverse scored over-identification) were parcelled and used as indicators for a latent variable of self-compassion as a previous study did (Joeng & Turner, 2015). Two items of SHS and five items of SWLS were indicators for latent variables of hope and life satisfaction respectively.

The two-step procedure recommended by Anderson and Gerbing (1988) was adopted to analyze the mediation effect. First, the measurement model was tested to assess whether each of the latent variable was represented by its indicators. If the measurement model was accepted, then the structural equation modeling can be tested. The goodness of fit of the model was evaluated by using the following indices: the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Statisticians have recommended that the fit of the models be considered acceptable when the CFI and TLI values are above .90, and the RMSEA and SRMR values are below .08 (Hu & Bentler, 1999).

The mediation effect of hope was tested for significance using the accelerated-bias-corrected bootstrap estimation procedure in Mplus 7.0 (bootstrap sample = 5000). The basic principle for the bootstrapping approach is that the standard error estimates and confidence intervals (CIs), which are calculated based on the assumption of a normal distribution, will usually be imprecise because the indirect effect estimates generally do not follow a normal distribution (MacKinnon, Lockwood, & Williams, 2004). MacKinnon et al. (2004) have suggested that the bootstrap method yields the most accurate CIs for indirect effects. In the bootstrapping procedure, a given sample size was randomly resampled, for example, 5000 times with replacement, and then 5000 estimations of an indirect effect were calculated. When the 95% confidence CI for an indirect effect did not include zero, the indirect effect was significant (MacKinnon et al., 2004).

3. Results

3.1. Preliminary analyses

Table 1 presents the descriptive statistics, the bivariate correlations and the internal consistencies for all the key variables. The internal consistencies for self-compassion, hope and life satisfaction all were satisfactory. As expected, self-compassion was positively correlated with hope and life satisfaction, and hope was positively correlated with life satisfaction (all ps < .001).

### Table 1: Descriptive statistics, correlations and the internal consistencies for key variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Self-compassion</td>
<td>3.33</td>
<td>0.47</td>
<td>.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Hope</td>
<td>5.55</td>
<td>1.16</td>
<td>.45*</td>
<td>.86</td>
<td></td>
</tr>
<tr>
<td>3 Life satisfaction</td>
<td>4.07</td>
<td>1.20</td>
<td>.36***</td>
<td>.64***</td>
<td>.87</td>
</tr>
</tbody>
</table>

Note: Internal consistencies (Cronbach’s alpha) are shown on the diagonal.

* p < .01, ** p < .001.

### 3.2. Measurement model

The measurement model revealed a satisfactory fit to the data: χ²(72, N = 320) = 198.44, p < .001, CFI = .95, TLI = .93, RMSEA = .07, SRMR = .06. All the standardized factor loadings for the indicators on the latent variables were statistically significant (λ ranging from .59 to .89, ps < .001), signifying that all the latent factors were well represented by their respective indicators.

### 3.3. Structural model

Structural model was estimated modeling self-compassion as a predictor, hope as a mediator, and life satisfaction as the outcome variable. The result suggested good fit to the data: χ²(120, N = 320) = 270.49, p < .001, CFI = .94, TLI = .93, RMSEA = .06, SRMR = .06. As hypothesized (see Fig. 1), the total effect of self-compassion on life satisfaction in the absence of the hope was significant (β = .43, p < .001). Self-compassion was positively associated with hope (β = .52, p < .001), and hope was positively associated with life satisfaction (β = .63, p < .001). Moreover, the indirect effect of hope was significant (indirect effect = .33, p < .001). After accounting for the mediating effect of hope, the direct effect of self-compassion on life satisfaction was no longer significant (β = .10, p = .12), suggesting that hope fully mediated the positive relationship between self-compassion and life satisfaction. The bootstrap estimation procedure (with 5000 bootstrapping samples) was adopted to test the mediating effect. The 95% CI (.23, .43) did not include zero, indicating that the mediating effect of hope was significant.③

We further examined whether three self-compassion components were associated with hope and life satisfaction in the same way. Given that the three self-compassion components were relatively strongly correlated with each other (all rs > .58, ps < .001), conducting a single model including all the three components might generate multicollinearity problem (Grewal, Cote, & Baumgartner, 2004). Therefore, we conducted three separate models regarding three self-compassion components respectively. The results showed that hope fully mediated the positive relationships between each self-compassion component and life satisfaction respectively (self-kindness and self-judgment as the predictor: total effect = .31, p < .001, indirect effect = .22, 95% CI = (.14, .30), p < .001, direct effect = .09, p = .07; common humanity and isolation as the predictor: total effect = .35, p < .001, indirect effect = .29, 95% CI = (.20, .37), p < .001, direct effect = .06, p = .25; mindfulness and over-identification as the predictor: total effect = .33, p < .001, indirect effect = .28, 95% CI = (.20, .36), p < .001, direct effect = .05, p = .36). In other words, three self-compassion components behaved in the same way regarding the effects on hope and life satisfaction in the structural models.

### 3.4. Gender differences

We observed no gender differences in self-compassion, hope and life satisfaction. Further we used multi-group models to test whether the path coefficients differ across genders. We compared the first model, freeing the paths to vary across genders, with the second model, constraining the structural paths across genders to be equal, to examine the gender differences. The result showed non-significant chi-square differences between two models, Δχ²(3) = 6.88, p = .08. Inspection of each path coefficient further confirmed that all the paths did not differ across genders.

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② We first conducted a confirmative factor analysis (CFA) with six factors (three components and their negative counterparts) for Self-Compassion Scale. The result showed unsatisfactory model fit: χ²(280, N = 320) = 654.21, p < .001, CFI = .87, TLI = .85, RMSEA = .07, SRMR = .07. Therefore, we could not use the six self-compassion factors as six predictors in conducting subsequent structural model.

③ We also examined an alternative model in which self-compassion mediated the relationship between hope and life satisfaction. The results indicated a satisfactory fit to the data: χ²(120, N = 320) = 305.09, p < .001, CFI = .91, TLI = .91, RMSEA = .07, SRMR = .08. However, the path coefficient from self-compassion to life satisfaction was not significant (β = .29, p = .12). Therefore, self-compassion did not mediate the relationship between hope and life satisfaction.
We divided the sample into two age groups (emerging adults: age 18–25, N = 221; adults: age 26–48, N = 99). We found no differences in self-compassion, hope and life satisfaction between two age groups. Multi-group analysis was performed to test whether the structural paths across age groups to be equal, paths to vary across age groups, and the second model, which constrains the structural paths across age groups to be equal (Δχ² (3) = 0.58, p = .90). Further inspection of each path coefficient confirmed that all the paths did not differ across age groups.

4. Discussion

Although researchers have recently begun to discuss the meditational mechanisms between self-compassion and well-being, they predominantly focused on how self-compassion decreased negative well-being components. The present study yields evidence on how self-compassion increases life satisfaction, which is a positive well-being outcome, and highlights the mediating role of hope. As hypothesized, self-compassion was positively associated with hope and life satisfaction, and hope was positively associated with life satisfaction. Moreover, hope emerged as a full mediator underlying the positive relationship between self-compassion and life satisfaction. With their own limitations and hardship show a greater global evaluation of life.

4.2. Mediating role of hope between self-compassion and life satisfaction

As expected, hope fully mediated the positive relationship between self-compassion and life satisfaction, indicating that hope is a particularly effective mediator underlying the positive relationship between self-compassion and life satisfaction. That is, how satisfied individuals are about their overall lives is not directly influenced by their levels of self-compassion, but indirectly through their levels of hope. Consistent with a previous study, which found that self-compassion was positively associated with trait hope among parents of children with autism (Neff & Faso, 2015), we also observed the positive relationship between self-compassion and state hope in Chinese adults. This might be because self-compassion allows individuals to take a nonjudgmental attitude towards themselves, which helps them to identify desired goals in life and to increase their perceived confidence about developing plausible pathways to reach goals (Sears & Kraus, 2009). Additionally, individuals with higher levels of self-compassion tend to cope with failure more adaptively (Neff et al., 2005) rather than be ruminated in negative evaluation and emotion (Leary, Tate, Adams, Allen, & Hancock, 2007; Raes, 2010). Therefore, they are more likely to strive to desired goals, generate higher persistence and maintain higher motivation towards goals even in challenging situations (Neff et al., 2005). In turn, the higher hopeful thinking and goal-related motivation might generate a greater satisfaction with life, which is consistent with previous findings (Gilman, Dooley, & Florell, 2006; Marques et al., 2013).

Since previous studies (Hall, Row, Wuensch, & Godley, 2013; Neff, 2016) found that different components of self-compassion demonstrate different influences on individual’s well-being, we conducted two additional analyses of self-compassion at more detailed levels regarding the functions of three components and six elements (three components and their negative counterparts) respectively. First, our results showed that the three components behaved in the same way regarding the effects on hope and life satisfaction in the structural models. Second, the six-factor CFA model for Self-Compassion Scale was not supported by our data, and thus, we could not further examine the specific functions of the six elements. Future research is needed to test how different aspects

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4. Emerging adulthood (age from 18 to 25 years) describes a unique developmental transition from late adolescence into adulthood (Arnett, 2000).
of self-compassion contribute differently to individual’s well-being in other samples.

Regarding gender and age differences, multi-group analyses found that the structural model did not differ across genders or age groups, indicating that the relationship between self-compassion, hope and life satisfaction was not moderated by gender or age in our study. However, Bluth and Blanton (2015) found that age, but not gender, moderated the relationship between self-compassion and well-being in adolescents. The inconsistency may be because their study was based on an adolescent sample but our study was conducted in an adult sample. Compared to adolescents, who are experiencing dramatic physiological and psychological changes, adults might have developed a relatively stable psychological mechanism that is less sensitive to age.

4.3. Limitations and implications

Some limitations of the present study should be noted. First, the present study employed self-report measures, which might be susceptible to bias (e.g., social desirability). Efforts should be made to use multiple methods for evaluation to reduce the impact of such bias. Second, since the present study was cross-sectional in design, interpretations of the causal relationship between self-compassion, hope and life satisfaction should be considered carefully. Future studies are needed to examine the results by experimental design. Neff et al. (2007) employed a gestalt two-chair technique to raise self-compassion. Such technique could be utilized to prime participants’ self-compassion and then test the causal relationship. Third, although we controlled for a variety of demographics variables (e.g., income), we did not consider the effect of religious belief. As suggested by a previous study, participants of Thailand, influenced heavily by Buddhism, showed a higher level of self-compassion than participants of Taiwan and the United States (Neff et al., 2008). Future studies are needed to test whether the mediation model could be moderated by participants’ religious belief. Finally, the participants in our study were recruited only from China. Future research is needed to reexamine the findings in other cultures to extend the generalizability of the present findings.

Despite the above limitations, the present study provides empirical evidence for the hypothesis that hope mediates the positive relationship between self-compassion and life satisfaction. Our findings also provide valuable guidance for the potential interventions aimed at increasing individuals’ life satisfaction. For instance, developing a self-compassionate mindset (Neff et al., 2007) could be considered as a possible way to accomplish that goal. Additionally, helping individuals set goals, keep hopeful thinking and maintain active motivation towards their goals could be utilized to enhance individuals’ life satisfaction.

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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