

**Coping Style as a Mediator in the Associations between Dispositional Mindfulness, Self-Compassion, and Loneliness**

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### Abstract

Mindfulness and self-compassion have the potential to alleviate loneliness, a significant public health concern. Investigating the underlying mechanisms that drive their impact on loneliness is crucial to optimizing their effectiveness. The current cross-sectional study aimed to explore the mediating role of coping style in the relationships between mindfulness, self-compassion, and loneliness. Participants ( $n = 453$ ) were recruited from the general population through social network platforms in China. Participants completed an online survey including measures of demographic information, dispositional mindfulness, self-compassion, coping style, and loneliness. Correlation analyses revealed that mindfulness and self-compassion both had significantly negative associations with loneliness; negative coping was positively correlated with loneliness, while positive coping was not significantly associated with loneliness; mindfulness and self-compassion were positively related to positive coping and negatively associated with negative coping. Mediation analyses showed that negative coping significantly mediated the effects of mindfulness and self-compassion on loneliness while controlling for demographic variables. These findings suggest that negative coping may serve as a potential mechanism linking mindfulness and self-compassion to loneliness. If future longitudinal and experimental research confirms the mediating effect of negative coping, mindfulness and self-compassion interventions can address negative coping to optimize their effects on loneliness.

*Keywords:* Mindfulness, self-kindness, coping style, engagement coping, disengagement coping, social connectedness

## Introduction

Loneliness is a pervasive and distressing emotional experience defined by the subjective perception of the discrepancy between desired and actual social connections (Peplau & Perlman, 1982). Evidence has demonstrated the detrimental impact of loneliness on various aspects of individuals' health. Previous research found associations between loneliness with cognitive decline (Lara et al., 2019) and heightened levels of psychological distress (Domènech-Abella et al., 2019). Additionally, loneliness was associated with higher all-cause mortality, even while controlling for depression (Rico-Urbe et al., 2018). Loneliness has taken on even greater significance during the COVID-19 pandemic, which has disrupted social interactions and presented unprecedented challenges in nurturing meaningful connections. As loneliness continues to manifest as a significant societal concern, the demand for effective interventions to alleviate it becomes increasingly evident.

Mindfulness and self-compassion could potentially reduce loneliness. Mindfulness and self-compassion both involve awareness and acceptance of experiences without engaging in self-criticism (Neff & Dahm, 2015). Mindfulness is commonly defined as non-reactive awareness of present-moment experiences with curiosity (Kabat-Zinn, 1990). Dispositional mindfulness, the tendency of individuals to maintain mindful awareness in their daily lives, was found to predict lower levels of loneliness (Xie et al., 2022). Additionally, randomized controlled trials have consistently demonstrated that mindfulness-based interventions (MBIs) could effectively decrease loneliness and increase social interactions (Creswell et al., 2012; Lindsay et al., 2019).

Self-compassion involves treating oneself with kindness when experiencing hardships in life, approaching negative experiences with a balanced and mindful perspective, and recognizing that negative experiences are part of the experiences of human beings (Neff, 2003a). A meta-

analysis suggested that self-compassion had a moderate-to-large and negative correlation with loneliness (Wang & Lou, 2022). Moreover, intervention studies found that self-compassion training could improve loneliness (e.g., Farzanfar et al., 2020).

As the effects of mindfulness and self-compassion on loneliness become increasingly evident, it is crucial to further clarify the mechanisms through which mindfulness and self-compassion alleviate loneliness. Understanding the underlying mechanisms is essential for enhancing the impact of MBIs and self-compassion interventions on loneliness and facilitating their implementation in real-world settings (Kazdin, 2007).

Coping style may be a potential mechanism underlying the impact of mindfulness and self-compassion on loneliness. Coping style refers to an individual's characteristic pattern of responding to challenging situations. It encompasses a range of cognitive, emotional, and behavioral strategies employed to manage and adapt to stressors (Bolger, 1990; Lazarus & Folkman, 1984). Coping style can be classified into two contrasting approaches: positive and negative coping (Xie, 1998). Positive coping, characterized by engagement strategies, involves responses directed toward the stressor or one's reactions to it, such as seeking social support, engaging in problem-solving, and positive reappraisal (Connor-Smith & Flachsbart, 2007; Xie, 1998). In contrast, negative coping, characterized by disengagement strategies, encompasses responses that turn away from the stressor or one's reactions to it. Examples of negative coping include avoidance, wishful thinking, substance abuse, and denial (Connor-Smith & Flachsbart, 2007; Xie, 1998).

Coping style can significantly impact levels of loneliness. Theoretically, positive coping may enable individuals to establish meaningful connections, receive emotional support, and shift their perspective on experiences of loneliness. These may ultimately reduce feelings of

loneliness. In contrast, negative coping may hinder effective problem-solving and restrict opportunities for social connection by disengaging individuals from stressors related to loneliness, thereby increasing the risk of loneliness. Indeed, a systematic review conducted by Deckx et al. (2018) found that positive coping strategies, such as seeking social support and positive reappraisal, were related to lower levels of loneliness; In contrast, negative coping strategies, such as wishful thinking, blaming oneself, and avoidance, had positive associations with loneliness.

Mindfulness may improve coping style. Mindful individuals tend to observe thoughts, emotions, and bodily sensations without immediate reactivity. In theory, this heightened non-reactive awareness creates mental space for individuals, enabling them to generate intentional and flexible responses to stressors (Shapiro et al., 2006). By providing the opportunity to choose actions rather than being driven by automatic reactions, mindfulness may promote positive coping while reducing negative coping. Indeed, intervention studies found that MBIs could increase positive coping (e.g., positive reappraisal, use of emotional support, problem-oriented coping) and reduce negative coping (e.g., social withdrawal and problem avoidance) (e.g., Cousin & Crane, 2016; Gok Metin et al., 2019; Quan et al., 2018; Zandi et al., 2021).

Similarly, self-compassion is promising in increasing positive coping and reducing negative coping. Self-compassion helps individuals approach stressors with self-kindness, mindful perspective, and an understanding of common humanity. This supportive and compassionate mindset may facilitate the use of positive coping, such as seeking social support and applying positive reappraisal, while diminishing reliance on maladaptive coping like self-criticism or avoidance (Neff, 2003a). Empirically, a meta-analysis conducted by Ewert et al.

(2021) found that self-compassion was linked with more positive coping ( $r = .31$ ) and less negative coping ( $r = -.50$ ).

Given the impact of coping style on loneliness and the influence of mindfulness and self-compassion on coping style, it is plausible that mindfulness and self-compassion may alleviate loneliness by improving coping style. Indeed, Zimmer-Gembeck et al. (2021) revealed that the association between dispositional mindfulness and loneliness was mediated by positive and negative coping strategies in response to peer relationship stress. However, the restricted context (i.e., peer relationship stress) and sample (i.e., adolescents) limited the generalizability of their findings to broader contexts and more diverse populations. Moreover, few studies thus far have examined whether self-compassion predicted lower levels of loneliness through improving coping style. Empirically, it was unclear whether coping style was a potential mechanism underlying the effect of self-compassion on loneliness.

### **Current Study**

To address the aforementioned limitations of previous studies, the current cross-sectional study investigated the mediating effect of coping style in the relationships between dispositional mindfulness, self-compassion, and loneliness in a general population. The following hypotheses were tested: H1) dispositional mindfulness and self-compassion would both be negatively associated with loneliness; H2) positive and negative coping would demonstrate negative and positive correlations with loneliness, respectively; H3) dispositional mindfulness and self-compassion would be positively related to positive coping, and they would be negatively linked to negative coping; H4) positive and negative coping would mediate the effects of dispositional mindfulness and self-compassion on loneliness, respectively.

### **Method**

## **Participants and Procedure**

Four hundred and fifty-three Chinese participants were recruited from the general population through social network platforms in China. After providing informed consent, participants completed an online survey. No identifying information was requested from participants. The mean age of participants was 23.39 ( $SD = 4.38$ ). 47.02% ( $n = 213$ ) of the participants were males and 52.98% ( $n = 240$ ) were females. 73.51% ( $n = 333$ ) of participants had a college or post-graduate degree. See Table 1 for the full participant demographic information obtained in the current study.

[Inset Table 1 here]

## **Measures**

### ***Demographic Information***

Demographic information collected in the current study included gender, age, the highest degree obtained, annual household income, relationship status, and employment status.

### ***Dispositional Mindfulness***

Dispositional mindfulness was assessed by the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003; Chen et al., 2012). MAAS is a 15-item, single-dimension scale. Each item of MAAS measures mindlessness/inattentiveness to ongoing events and experiences. Participants rate their tendency of mindlessness/inattentiveness in daily life on a 6-point Likert scale (1 = *Almost always*, 6 = *Almost never*). The overall score of MAAS is obtained by calculating the mean score of all items, with a higher overall score corresponding to higher dispositional mindfulness. In the present study, Cronbach's alpha of MAAS was .92.

### ***Self-Compassion***



Self-compassion was measured by the 26-item Self-Compassion Scale (SCS; Chen et al., 2011; Neff, 2003b). SCS comprises three positive and three negative subscales. Positive subscales—Self-Kindness, Mindfulness, and Common Humanity—reflect compassionate experiences. Negative subscales—Self-Judgment, Over-Identification, and Isolation—reflect uncompassionate experiences. Participants rate the frequency of their experiences in their daily lives on a five-point Likert scale (1 = *Almost never*, 5 = *Almost always*). The overall score of SCS represents the level of self-compassion. To calculate the overall score, first reverse-score the items of the negative subscales, calculate the mean score for each subscale, then average the mean scores of the six subscales. Higher overall scores indicate higher levels of self-compassion. In the current study, the overall score of SCS was computed to represent the levels of self-compassion. Cronbach's alpha of the full SCS and subscales ranged from .69 to .85 in the present study.

### ***Coping Style***

Coping style was measured through the 20-item Simplified Coping Style Questionnaire (SCSQ; Xie, 1998). SCSQ consists of two subscales: Positive Coping and Negative Coping. Participants rate their frequency of using each coping strategy from 0 (*Never use*) to 3 (*Often use*). The overall scores of Positive Coping and Negative Coping were computed by summing up the scores of corresponding items. Higher overall Positive and Negative Coping scores indicate more frequent use of positive and negative coping strategies, respectively. In the current study, Cronbach's alpha of Positive Coping and Negative Coping were .83 and .73, respectively.

### ***Loneliness***

Loneliness was assessed through the UCLA Loneliness Scale Version 3 (UCLA-3; Russell, 1996; Wang et al., 1999). UCLA-3 is a single-dimension scale with 20 items, among

which nine are reverse scored. Each item asks about participants' frequency of feeling isolated or connected with others on a scale from 1 (*Never*) to 4 (*Often*). The overall score of UCLA-3 is calculated by reverse-scoring the items measuring perception of social connectedness followed by summing up the scores of the 20 items. The higher the overall score, the more severe loneliness is. In the current study, Cronbach's alpha of UCLA-3 was .93.

### **Data Analyses**

All statistical analyses were conducted in RStudio (Version 2022.12.0+353) through R programming. Pearson correlation analyses were run to examine the correlations among dispositional mindfulness, self-compassion, coping style, and loneliness. Then, independent mediation analyses were conducted to test the mediating effect of coping style in the associations between mindfulness and self-compassion with loneliness. Model 4 in PROCESS Macro for R was used for mediation analyses (Hayes, 2022, 2023). The bootstrapping procedure with 5000 resamples was conducted. 95% confidence intervals (CIs) without including zero suggest significant indirect effects. Demographic variables were included in the mediation models as covariates to control for their potentially confounding effects on the relationships among the study variables.

## **Results**

### **Correlation Analyses**

Pearson correlation analyses demonstrated significant and negative associations between dispositional mindfulness ( $r = -.30, p < .001$ ) and self-compassion ( $r = -.41, p < .001$ ) with loneliness. Negative coping was significantly and positively linked with loneliness ( $r = .38, p < .001$ ), while positive coping was not significantly related to loneliness ( $r = -.06, p = .231$ ). Both dispositional mindfulness ( $r = -.37, p < .001$ ) and self-compassion ( $r = -.39, p < .001$ ) were

significantly and negatively associated with negative coping. Both dispositional mindfulness ( $r = .41, p < .001$ ) and self-compassion ( $r = .52, p < .001$ ) had significantly positive correlations with positive coping. See Table 2 for the descriptive statistics and correlations among study variables.

[Insert Table 2 here]

### **Mediation Analyses**

Given that positive coping was not significantly associated with loneliness, mediation analyses for positive coping were not conducted. Mediation analyses with negative coping as the mediator were conducted. Unstandardized path coefficients and indirect effects for the mediation models were reported while controlling for demographic variables.

The results revealed a significant and negative total effect of dispositional mindfulness on loneliness ( $c = -1.72, p < .001$ ). The path coefficient from dispositional mindfulness to negative coping was negative and significant ( $a = -1.86, p < .001$ ). The path coefficient from negative coping to loneliness was positive and significant ( $b = 0.45, p < .001$ ). Furthermore, the indirect effect of dispositional mindfulness on loneliness through negative coping was found to be significant ( $ab = -0.83, 95\% \text{ CI } [-1.12, -0.55]$ ). The direct effect of dispositional mindfulness on loneliness, controlling for negative coping, remained significant ( $c' = -0.89, p = .004$ ).

The total effect of self-compassion on loneliness was negative and significant ( $c = -3.27, p < .001$ ). The path coefficient from self-compassion to negative coping was negative and significant ( $a = -2.68, p < .001$ ). The path coefficient from negative coping to loneliness was positive and significant ( $b = 0.38, p < .001$ ). Furthermore, the indirect effect of self-compassion on loneliness through negative coping was found to be significant ( $ab = -1.02, 95\% \text{ CI } [-1.45, -$

0.63]). The direct effect of self-compassion on loneliness, controlling for negative coping, remained significant ( $c' = -2.25, p < .001$ ).

See Tables 3 and 4 for the full results of the mediation models. See Figures 1 and 2 for the diagrams illustrating the mediation models.

[Insert Table 3 here]

[Insert Table 4 here]

[Insert Figure 1 here]

[Insert Figure 2 here]

### **Discussion**

The present cross-sectional study examined the mediating role of coping style in the relationships between mindfulness, self-compassion, and loneliness in the general population. By exploring whether coping style acted as a potential mechanism linking mindfulness and self-compassion to loneliness, the study aimed to offer insights into how MBIs and self-compassion interventions could be optimized to alleviate loneliness.

Supporting hypothesis H1, the results revealed negative associations between dispositional mindfulness and self-compassion with loneliness. This finding is in line with previous studies indicating that dispositional mindfulness and self-compassion had negative correlations with loneliness (e.g., Xie et al., 2022). It also supports the potential of MBIs and self-compassion interventions to alleviate loneliness (Creswell et al., 2012; Farzanfar et al., 2020; Lindsay et al., 2019).

Hypothesis H2 is partially supported. The current study revealed a significant and positive association between negative coping and loneliness. This result supports that individuals who employ negative coping strategies, such as avoidance, wishful thinking, substance abuse,

and denial, may experience higher levels of loneliness (Deckx et al., 2018). As previously noted, these maladaptive coping mechanisms may inadvertently isolate individuals and hinder the development of meaningful social connections, thus exacerbating feelings of loneliness.

Surprisingly, no significant relationship emerged between positive coping and loneliness. Positive coping strategies are typically regarded as adaptive and beneficial for improving overall well-being and loneliness (Deckx et al., 2018; Li et al., 2021). The absence of a significant association between positive coping and loneliness may be explained by the influence of other factors, such as the quality or availability of social support (Zhang & Dong, 2022). Specifically, if individuals encounter barriers to accessing meaningful and adequate social support, their positive coping efforts (e.g., actively seeking support) may not directly translate into decreased feelings of loneliness. This consideration becomes particularly salient in the context of the COVID-19 pandemic. The pandemic has disrupted social interactions and in-person gatherings, which are important for maintaining meaningful connections and alleviating loneliness (Silva et al., 2023). These findings highlight the importance of considering the differential impact of positive and negative coping on loneliness. Future research may delve deeper into the potential factors (e.g., the quality and availability of social support) that could influence the relationship between coping style and loneliness. Such research may help to gain a more comprehensive understanding of the association between coping style and loneliness and inform more effective interventions for loneliness.

Supporting hypothesis H3, the study demonstrated positive associations between dispositional mindfulness and self-compassion with positive coping, and negative associations with negative coping. As previously noted, mindful awareness with non-reactivity may create mental space for intentional and flexible responses to loneliness-related stressors, thus enhancing

positive coping strategies while reducing engagement in negative coping (Shapiro et al., 2006). Similarly, self-compassion encourages individuals to approach loneliness-related stressors with self-kindness, mindfulness, and a recognition of common humanity, which may, in turn, promote the use of positive coping and diminish reliance on maladaptive coping such as self-criticism and avoidance. The current findings validate the theoretical effects of mindfulness and self-compassion on coping style. They also resonate with previous studies showing that mindfulness and self-compassion could promote positive coping and reduce negative coping (Donald & Atkins, 2016; Ewert et al., 2021; Gok Metin et al., 2019; Zandi et al., 2021).

As hypothesized (H4), the current study demonstrated that negative coping mediated the effects of dispositional mindfulness and self-compassion on loneliness. These findings suggest that individuals with higher mindfulness and self-compassion are less inclined to adopt negative coping strategies, which may, in turn, reduce experiences of loneliness. As previously noted, Zimmer-Gembeck et al. (2021) found negative coping to mediate the relationship between mindfulness and loneliness among adolescents in the context of peer relationship stress. The current study not only supports Zimmer-Gembeck et al.'s findings but also enhances the generalizability of the mediating effect of negative coping by extending its examination to more diverse populations and a wider array of contexts. Moreover, few previous studies have examined whether coping style is a potential mechanism linking self-compassion to loneliness. The present research fills this crucial gap by revealing the mediating effect of coping style in the relationship between self-compassion and loneliness.

### **Practical Implications**

If the mediating effect of negative coping style is further confirmed in future longitudinal and experimental studies, MBIs and self-compassion interventions may target negative coping to

optimize their effects on loneliness. For example, interventions may incorporate psychoeducation on various negative coping strategies (e.g., wishful thinking, avoidance, denial, and substance use) and their detrimental influence on loneliness. Additionally, interventions may encourage individuals to increase mindful awareness of negative coping tendencies, cultivate self-kindness, and recognize that engaging in negative coping is a common human response to loneliness-related experiences in daily life. By integrating these components, MBIs and self-compassion interventions may optimize their potential to reduce negative coping and alleviate loneliness.

### **Limitations and Future Directions**

The current study presents several noteworthy limitations that warrant consideration. Firstly, due to its cross-sectional design, *causal* inferences regarding the mediating effect of negative coping cannot be drawn. Future research should incorporate longitudinal and experimental approaches to illuminate whether negative coping is a *causal* mechanism underlying the effects of mindfulness and self-compassion on loneliness (Kazdin, 2007).

Secondly, while the study did not impose specific restrictions on sociodemographic variables, it is crucial to acknowledge that the sample was predominantly composed of educated and young participants. This could be attributed to the fact that social media users predominantly consist of the younger, educated demographic. Consequently, the generalizability of the findings to older and less educated individuals may be limited. To address this limitation, future studies should explore whether the mediating effect of negative coping applies to individuals from diverse age and education groups.

Another limitation pertains to the reliance on a self-report measure for assessing loneliness. Self-report measures can be susceptible to response biases (Paulhus & Vazire, 2007), potentially influencing the accuracy of reported loneliness levels. To address this concern, future

research could integrate objective measures of social relationships, such as tracking the number of social interactions (Lindsay et al., 2019), to provide a more objective understanding of participants' social engagement. Such objective measures would serve as a valuable complement to self-report loneliness and bolster the robustness of the findings.

### **Conclusion**

In conclusion, this cross-sectional study reveals that negative coping plays a mediating role in the effects of dispositional mindfulness and self-compassion on loneliness. Despite certain limitations, the study provides valuable insights into the potential mechanisms underlying the impact of mindfulness and self-compassion on loneliness. These findings pave the way for future longitudinal and experimental research to investigate whether negative coping acts as a *causal* mechanism linking mindfulness and self-compassion to loneliness. Ultimately, this research may inform the optimization of MBIs and self-compassion interventions in addressing loneliness, a significant public health concern.



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**Table 1***Sociodemographic Characteristics of Participants (N = 453)*

Variable	<i>n</i>	Percent (%)	Mean	<i>SD</i>
<b>Gender</b>				
Male	213	47.02		
Female	240	52.98		
<b>Age</b>				
			23.39	4.38
<b>Relationship status</b>				
Single	250	55.19		
Dating	132	29.14		
Married	70	15.45		
Divorced	1	0.22		
Widowed	0	0.00		
<b>Highest degree</b>				
Elementary school	0	0.00		
Middle school	2	0.44		
High school	33	7.28		
Technical college	85	18.76		
College	302	66.67		
Post-graduate	31	6.84		
<b>Employment status</b>				
Student	238	52.54		
Working full-time	169	37.31		
Working part-time	39	8.61		
Unemployed	7	1.55		
Retired	0	0.00		
<b>Annual household income (Chinese Yuan)</b>				
Less than 30,000	33	7.28		
30,000-80,000	74	16.34		
80,000-150,000	153	33.77		
150,000-250,000	125	27.59		
250,000-500,000	61	13.47		
More than 500,000	7	1.55		

**Table 2***Descriptive Statistics and Correlations among Study Variables*

Measures	1.	2.	3.	4.	5.
1. Mindfulness	-				
2. Self-compassion	.60***	-			
3. Positive coping	.41***	.52***	-		
4. Negative coping	-.37***	-.39***	.01 <sup>a</sup>	-	
5. Loneliness	-.30***	-.41***	-.06 <sup>a</sup>	.38***	-
Mean	4.07	3.34	24.82	11.75	52.03
SD	0.89	0.65	5.63	4.29	5.88

Note. \*\*\* $p < .001$ , <sup>a</sup> non-significant.



**Table 3***The Mediating Effect of Negative Coping in the Relationship between Dispositional Mindfulness and Loneliness*

Predictors	Outcome: Negative coping				Outcome: Loneliness			
	<i>B</i>	<i>t</i>	<i>p</i>	95% CI	<i>B</i>	<i>t</i>	<i>p</i>	95% CI
Mindfulness	-1.86	-8.40	<.001	[-2.30, -1.43]	-0.89	-2.94	.004	[-1.48, -0.29]
Negative coping					0.45	7.43	<.001	[0.33, 0.57]
Gender	-0.24	-0.63	.531	[-0.99, 0.51]	2.08	4.28	<.001	[1.13, 3.04]
Age	0.026	0.45	.652	[-0.089, 0.14]	0.031	0.41	.681	[-0.12, 0.18]
Highest degree	-0.15	-0.53	.596	[-0.69, 0.40]	0.50	1.42	.156	[-0.19, 1.19]
Annual household income	0.24	1.35	.178	[-0.11, 0.60]	-1.12	-4.90	<.001	[-1.57, -0.67]
Relationship status	0.28	0.64	.522	[-0.57, 1.12]	0.66	1.20	.231	[-0.42, 1.73]
Employment status	-0.41	-0.81	.416	[-1.40, 0.58]	-1.05	-1.64	.101	[-2.30, 0.21]
<i>R</i> <sup>2</sup>	.14				.27			
<i>F</i>	10.48				20.15			

*Note.* *B* = unstandardized path coefficient. Gender was coded as male (0) and female (1). The levels for highest degree and annual household income were coded using ordinal values, with degree levels ranging from elementary school (1) to post-graduate (6), and

income categories ranging from <30,000 (1) to >500,000 Chinese Yuan (6). Relationship status was coded as not in a relationship (0; combining single, divorced, and widowed categories) and currently in a relationship (1; combining dating and married categories). Employment status was coded as non-employed (0; combining student, unemployed, and retired categories) and employed (1; combining working part-time and working full-time categories).

**Table 4***The Mediating Effect of Negative Coping in the Relationship between Self-Compassion and Loneliness*

Predictors	Outcome: Negative coping				Outcome: Loneliness			
	<i>B</i>	<i>t</i>	<i>p</i>	95% CI	<i>B</i>	<i>t</i>	<i>p</i>	95% CI
Self-compassion	-2.68	-9.05	<.001	[-3.26, -2.09]	-2.25	-5.57	<.001	[-3.04, -1.45]
Negative coping					0.38	6.43	<.001	[0.27, 0.50]
Gender	-0.54	-1.41	.158	[-1.28, 0.21]	1.83	3.85	<.001	[0.90, 2.77]
Age	-0.014	-0.25	.802	[-0.13, 0.10]	0.020	0.27	.786	[-0.12, 0.16]
Highest degree	-0.17	-0.63	.531	[-0.71, 0.37]	0.50	1.44	.151	[-0.18, 1.17]
Annual household income	0.21	1.17	.243	[-0.14, 0.55]	-1.05	-4.73	<.001	[-1.49, -0.61]
Relationship status	0.38	0.89	.376	[-0.46, 1.21]	0.78	1.45	.147	[-0.27, 1.83]
Employment status	-0.22	-0.44	.659	[-1.19, 0.76]	-0.99	-1.59	.112	[-2.21, 0.23]
<i>R</i> <sup>2</sup>	.16				.30			
<i>F</i>	12.11				23.90			

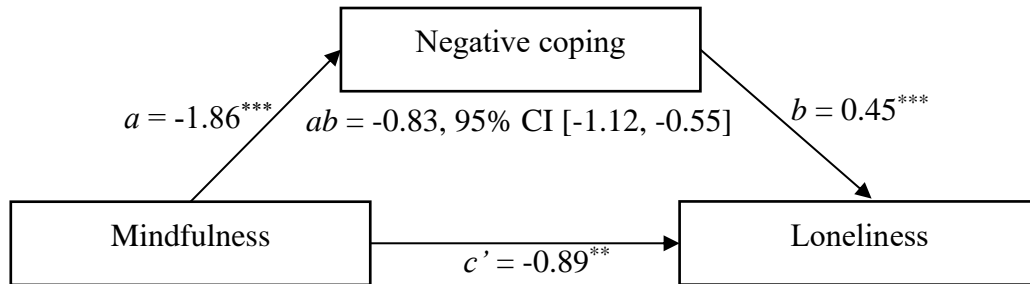
*Note.* *B* = unstandardized path coefficient. Gender was coded as male (0) and female (1). The levels for highest degree and annual household income were coded using ordinal values, with degree levels ranging from elementary school (1) to post-graduate (6), and

income categories ranging from <30,000 (1) to >500,000 Chinese Yuan (6). Relationship status was coded as not in a relationship (0; combining single, divorced, and widowed categories) and currently in a relationship (1; combining dating and married categories). Employment status was coded as non-employed (0; combining student, unemployed, and retired categories) and employed (1; combining working part-time and working full-time categories).

## COPING STYLE AS A MEDIATOR

**Figure 1**

*Diagram for the Mediating Effect of Negative Coping in the Relationship Between Dispositional Mindfulness and Loneliness*

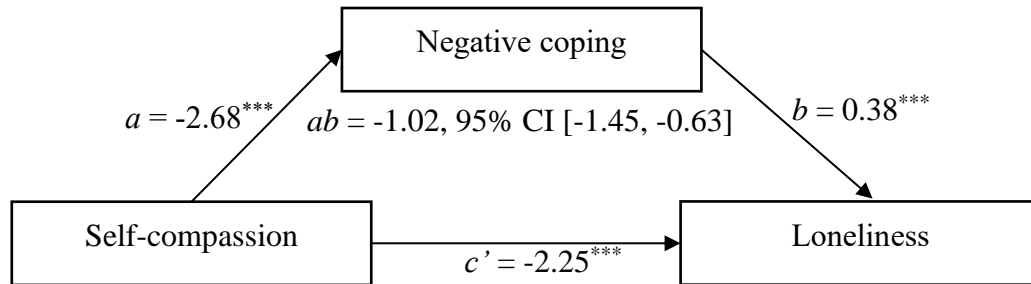


*Note.*  $a$  = unstandardized path coefficient for the effect of dispositional mindfulness on negative coping.  $b$  = unstandardized path coefficient for the effect of negative coping on loneliness while controlling for mindfulness.  $c'$  = unstandardized path coefficient for the effect of dispositional mindfulness on loneliness while controlling for negative coping. Participants' demographic variables were included as covariates in the mediation model but not illustrated in the diagram to make the diagram concise.  $**p < .01$ ,  $***p < .001$ .

## COPING STYLE AS A MEDIATOR

**Figure 2**

*Diagram for the Mediating effect of Negative Coping in the Relationship Between Self-Compassion and Loneliness*



*Note.*  $a$  = unstandardized path coefficient for the effect of self-compassion on negative coping.  $b$  = unstandardized path coefficient for the effect of negative coping on loneliness while controlling for self-compassion.  $c'$  = unstandardized path coefficient for the effect of self-compassion on loneliness while controlling for negative coping. Participants' demographic variables were included as covariates in the mediation model but not illustrated in the diagram to make the diagram concise.  $^{***}p < .001$ .