



The paradoxical roles of self-compassion and other-compassion in women vs. men's psychological distress during the COVID-19 pandemic

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ABSTRACT

During the COVID-19 pandemic, women exhibited stronger increases in psychological distress than men. In the current research, we explored whether women's relatively low self-compassion and high compassion for others explain the disproportionate impact the COVID-19 pandemic had on their psychological distress. Three cross-sectional studies (Study 1: $N = 281$; Study 2: $N = 163$; Study 3: $N = 1,956$) were conducted during the COVID-19 pandemic in 2020. Participants completed self-reported measures of self-compassion, compassion for others, and psychological distress during the COVID-19 pandemic. Across three studies, women exhibited higher levels of psychological distress than men during the COVID-19 pandemic in 2020. Further, gender differences in psychological distress were mediated by women's lower self-compassion and higher compassion for others relative to men's. Our data suggest that self-compassion and compassion for others play paradoxical roles in explaining gender differences in psychological distress during a global pandemic. The current research contributes to the continual call for changes to patriarchal societies and to promoting individual-level self-compassion interventions in order to address gender disparities in mental health.





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The COVID-19 pandemic has undoubtedly inflicted hardships on individuals worldwide, leading to significant increases in psychological distress (Clemente-Suárez et al., 2021; Patel et al., 2022). However, women experienced disproportionately higher levels of psychological distress during the COVID-19 pandemic than men (Conversano et al., 2020; Horesh et al., 2020; Zhang et al., 2021). Moreover, the gender disparity in distress has widened compared to pre-pandemic levels in the United States (Breslau et al., 2021). Extant explanatory factors of the gender disparity in psychological distress during the pandemic include gendered work and domestic roles and behaviors, such as women's, relative to men's, increased unpaid childcare and housework hours, reduced working

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hours, and changes in employment schedules to meet the increased demand for childcare (Xue et al., 2021). However, the potential roles of gendered psychological factors in explaining the gender distress gap during the pandemic have not received empirical attention. Addressing this critical gap, the current research explores the roles of two gendered personality traits – self-compassion and compassion for others. Across three cross-sectional studies, our main hypotheses are that since women tend to have higher self-compassion and higher compassion for others than men (McDonald & Kanske, 2023; Yarnell et al., 2015), these gender differences play a pivotal explanatory role in gender disparities in psychological distress during the COVID-19 pandemic. Altogether, the present data are the first to provide a nuanced understanding of how women were less likely to benefit from compassion at a time when perhaps they needed it the most, during a global crisis.

Gender differences in self-compassion and compassion for others

Compassion generally involves recognizing suffering in either the self or others and having a desire to alleviate that suffering (K. D. Neff, 2003; Pommier et al., 2020). Self-compassion and compassion for others entail three components: mindfulness (paying attention to sufferings), kindness (being warm and caring), and common humanity (viewing sufferings as normal human experiences; K. D. Neff, 2003; Pommier et al., 2020). Even though these two compassion constructs share similar components, their difference in their target of compassion, the self versus others, makes them two distinct psychological constructs that are either weakly or moderately correlated ($r = .13$ to $.31$; Pommier et al., 2020).

Moreover, they differ in their expression between women and men: women tend to express lower self-compassion, but higher compassion for others, relative to men (McDonald & Kanske, 2023; Yarnell et al., 2015). One potential explanation for these gender differences in self- and other-compassion is that they are rooted in gender societal beliefs – shared sociocultural beliefs about women's and men's characteristics (Eagly & Wood, 2012; Yarnell et al., 2019). The socialization and globalization of gender beliefs guide gender differences in a wide range of psychological constructs (Ballard-Reisch & Elton, 1992; Eagly & Wood, 2012). Women are often assigned and expected to fulfill gender roles with a communal orientation that emphasizes caring for others (Ballard-Reisch & Elton, 1992; Eagly & Wood, 2012). Therefore, since compassion for others is inherently other-oriented, it stands to reason that women tend to have higher compassion for others than men (McDonald & Kanske, 2023). On the other hand, men are often assigned and expected to fulfill gender roles with an agentic orientation that focuses on self-targeted pursuits (Ballard-Reisch & Elton, 1992; Eagly & Wood, 2012). Since self-compassion is self-directed, it is unsurprising that men tend to have higher self-compassion than women (Yarnell et al., 2015, 2019).

In addition, gender role orientation, the degree to which individuals integrate masculine or feminine gender roles into their self-concepts, predicts how compassionate they are toward themselves and others (Andrews et al., 2021; Yarnell et al., 2019). Individuals who are highly masculine tend to exhibit higher self-compassion, presumably because masculinity is stereotypically associated with agency and self-directed pursuits (Eagly & Wood, 2012; Yarnell et al., 2019). On the other hand, individuals who are highly feminine

tend to exhibit higher empathic concern, which is an other-compassion factor defined as “the tendency to experience feelings of warmth, compassion, and concern for other people” (Davis, 1983, p. 117). This relation apparently emerges because femininity is stereotypically associated with communion (Andrews et al., 2021; Eagly & Wood, 2012). Overall, self-compassion and compassion for others are byproducts of the social categorization of gender and gender roles (Andrews et al., 2021; Yarnell et al., 2019), relations that are rooted in society’s patriarchal structure.

Self-compassion, compassion for others, and psychological distress during the COVID-19 pandemic

The COVID-19 pandemic detrimentally impacted virtually all aspects of individuals’ lives, including their well-being, financial health, and, of course, physical health, making the roles of self-compassion and other-compassion particularly vital. Engaging in self-compassion during the COVID-19 pandemic may have required attending to personal heightened pandemic-related stress and struggles (mindfulness); being warm and caring to oneself in this difficult time (self-kindness); and viewing one’s increased sufferings in this pandemic as a shared human experience (common humanity). Engaging in compassion for others during the COVID-19 pandemic, by comparison, entailed being attuned to others’ increased negative thoughts and feelings (mindfulness), responding with warmth and care (kindness), and viewing others’ pandemic struggles as common human experiences (common humanity)

Self-compassion and compassion for others also had downstream implications for psychological distress experienced during the COVID-19 pandemic (Lau et al., 2020; Matos et al., 2022). According to the World Health Organization (2022), the COVID-19 pandemic triggered a 25% increase in psychological distress worldwide during its first year. Self-compassion entails positive and supportive attitudes toward oneself, so it is unsurprising that high levels of self-compassion were generally associated with low psychological distress among adult women and men during the COVID-19 pandemic (Lau et al., 2020; Matos et al., 2022). Data from before the COVID-19 pandemic also shows that self-compassion was consistently linked with low psychological distress (i.e., stress and anxiety) in samples of adults and adolescents, regardless of their gender identities (for meta-analyses, see MacBeth & Gumley, 2012; Marsh et al., 2018). Altogether, these data suggest that self-compassion buffers one’s mental health; thus, having low self-compassion during a distressing context such as the COVID-19 pandemic may be disadvantageous (Lau et al., 2020; Matos et al., 2022). As reviewed above, women tend to have lower self-compassion than men. Although this gender effect may be small (Yarnell et al., 201), we posit that it is meaningful in explaining gender differences in psychological distress during the COVID-19 pandemic. This first exploratory hypothesis is tested in Studies 1 and 2.

Relative to the research on self-compassion and psychological distress, the one on compassion for others and psychological distress is both limited and mixed (Cosley et al., 2010; Matos et al., 2022). Before the COVID-19 pandemic, Cosley et al. (2010) experimentally demonstrated that higher compassion for others was associated with lower physiological stress responses, but only in a condition in which participants received social support during a stressful task. In the control condition in which participants did not

receive any social support during the stressful task, compassion for others was not associated with physiological stress responses. These data suggest that receiving social support can turn compassion for others into a protective factor in managing stress during a difficult time (Cosley et al., 2010). However, the pandemic's lockdowns and social-distancing measures restricted opportunities for social interaction, thereby reducing (and at times eliminating) the availability of social support and the ability to receive it. As a result, compassion for others may not have had its protective effect against psychological distress during the COVID-19 pandemic. Indeed, one study found that compassion for others was not associated with psychological distress during the COVID-19 pandemic (Matos et al., 2022).

Given the limited research, it is important to further investigate whether high compassion for others is either a risk or a protective factor to one's psychological distress during the COVID-19 pandemic. During the extended period of the COVID-19 pandemic, mass sufferings were salient as individuals were constantly exposed to news regarding massive local and global hospitalizations and deaths. For individuals with high compassion for others, it is possible that their high desire to alleviate others' suffering during an extended period of mass sufferings becomes disadvantageous for their mental health. Since women have higher compassion for others than men (McDonald & Kanske, 2023), we examine if this gender difference in compassion for others explains the gender disparity in psychological distress during the COVID-19 pandemic. This second exploratory hypothesis is examined in Studies 2 and 3.

Overview of the current research

Taken together, three cross-sectional studies address the novel research questions about the explanatory roles of self-compassion (Studies 1 and 2) and compassion for others (Studies 2 and 3) in psychological distress of women versus men during the COVID-19 pandemic. Our findings will not only provide empirical findings that will contribute to the social psychology literature on gender and compassion, but they will also provide important insights into the global gender disparities in psychological distress.

Study 1

The main goal of Study 1 is to test the first exploratory hypothesis that self-compassion explains women's higher psychological distress during the COVID-19 pandemic relative to men.

Method

Participants and procedure

An ethnic-racial diverse sample of three hundred and four student participants from a Northeastern university received course credit for completing Study 1,¹ a cross-sectional study conducted during the COVID-19 pandemic in 2020. Participants who failed the attention check ($n=21$) and did not identify with a binary gender orientation (i.e., man or woman; $n=2$) were excluded from data analyses, yielding a final sample size of $N=281$. Participants ($M_{\text{age}}=21.19$, $SD=$

Table 1. Sample demographics.

Variable	Study 1	Study 2	Study 3
<i>N</i> = 281	<i>N</i> = 163	<i>N</i> = 1,900	
Age (mean years)	21.19 (4.79)	22.39 (6.13)	48.00 (13.00)
Gender			
Woman	75.80	76.70	90.50
Man	24.20	23.30	9.50
Ethnicity/Race			
American Indian/Alaska Native	4.00	7.00	
African-American/Black	21.70	20.20	8.00
Asian or Pacific Islander	13.90	17.20	1.10
Hispanic/Latino	36.30	30.10	5.00
White, not of Hispanic origin	18.10	11.00	91.30
Multi-racial or Other identity	17.10	21.50	1.10
Marital Status			
Single	95.90	93.80	28.20
Married	3.60	4.30	56.30
Divorced	1.40	1.80	12.20
Widowed	0.00	3.30	

Values following all variables represent percentages, except for age for which we report means and standard deviations in parentheses. Study 1's ethnicity/race categories add up to more than 100% because participants were allowed to select more than one category.

4.79) were mostly women (75.80%) and Hispanic/Latino (36.30%). [Table 1](#) reports demographics of the final sample. A sensitivity power analysis using G*Power (Faul et al., 2009) indicated that the sample size provided 80% power ($\alpha = .05$) to detect a $\eta_p^2 = .17$ effect size.

All participants were recruited via Sona Systems (<https://www.sona-systems.com>) between November 2020 and February 2021; and all measures were completed via Inquisit 5 [Computer Software] (2016). The measure of self-compassion appeared before the measure of psychological distress during the COVID-19 pandemic and the demographic questionnaire.

Self-compassion

The Self-Compassion Scale Short-Form (Raes et al., 2011) is a well-established measure of self-compassion that contains 12 items (e.g., "When I'm going through a very hard time, I give myself the caring and tenderness I need"). Participants responded on a 5-point scale ranging from *almost never* (1) to *almost always* (5; $\alpha = .86$).

Psychological distress during the COVID-19 pandemic

Participants responded to 2 items ("Since COVID-19 started spreading around the United States, to what extent have you felt stressed;" "Since COVID-19 started spreading around the United States, to what extent have you felt anxious;" adapted from Young et al., 2015) on a 5-point scale ranging from *not at all* (1) to *extremely* (5; $r = .78$, $p < .001$).

Attention check

An attention check item, "For this item, please select 'Almost always' to demonstrate your attention," was embedded in the self-compassion measure.

Table 2. Study 1: zero-order correlations among all measures in the analyses.

Variable	1	2	3	4	5
(1) Age	-.26*	-.11	-.07	-.16*	-.36**
(2) Work hours	.07	.05	.01	.27**	
(3) Family income	.02	.05	-.03		
(4) Gender (men = 0, women = 1)	.18*	.05			
(5) Self-compassion	-.09				
(6) Psychological distress during the COVID-19 pandemic					

* $p \leq .01$, ** $p \leq .001$.

Results

Table 2 lists the zero-order correlations among the covariates, gender, self-compassion, and psychological distress during the COVID-19 pandemic. In all analyses, we controlled for age, weekly work hours, and family income since past research indicates that younger individuals, reduced work hours, and lower household income were related to psychological distress during the COVID-19 pandemic (Breslau et al., 2021; Xue et al., 2021).

A multivariate analysis of covariance (MANCOVA) indicated a significant effect of gender on self-compassion and psychological distress during COVID-19, $F(2, 275) = 11.73$, $p < .001$, $\eta_p^2 = .08$. Women ($M = 3.93$; $SD = 1.03$) experienced higher psychological distress during COVID-19 than men ($M = 3.26$; $SD = 1.03$), $F(1, 276) = 21.58$, $p < .001$, $\eta_p^2 = .07$. Also, women ($M = 2.87$; $SD = .78$) reported lower levels of self-compassion than men ($M = 3.16$; $SD = .74$), $F(1, 276) = 4.65$, $p = .005$, $\eta_p^2 = .03$. These gender effects are squarely consistent with past research (Conversano et al., 2020; Horesh et al., 2020; Yarnell et al., 2019; Zhang et al., 2021).

Next, we used Hayes (2018) PROCESS macro (Model 4) for mediation with 10,000 bootstraps and submitted gender as the predictor variable, self-compassion as the mediator, psychological distress during the COVID-19 pandemic as the outcome variable, and age, work hours, and family income as covariates. As per Figure 1, self-compassion significantly mediated the relation between gender and psychological distress during the COVID-19 pandemic, $b = .13$, $SE = .05$, 95% CI [.04, .24], suggesting that women experienced higher

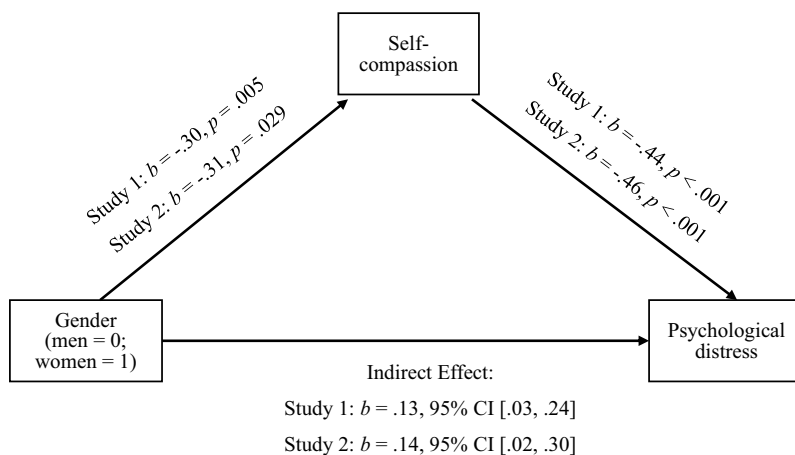


Figure 1. Studies 1 and 2: self-compassion mediates the relation between participants' gender and psychological distress during the COVID-19 pandemic.

psychological distress during the COVID-19 pandemic because of their lower self-compassion relative to men.

Study 2

Replication using different measures increases the reliability of findings and thus is an important step toward building scientific knowledge. Therefore, in Study 2, we tested for replication of Study 1's findings, but with a different well-established measure of self-compassion. Furthermore, we tested the second exploratory hypothesis that compassion for others is a second compassion factor that explains the effect of gender on psychological distress during the COVID-19 pandemic.

Method

Participants and procedure

An ethnic-racial diverse sample of two hundred and seven student participants from a Northeastern university received course credit for completing Study 2, a cross-sectional study conducted during the COVID-19 pandemic between April 2020 and August 2020. Participants who failed the attention check ($n = 44$) were excluded from data analyses, yielding a final sample size of $N = 163$. Participants ($M_{\text{age}} = 22.39$, $SD = 6.13$) were mostly women (76.70%) and Hispanic/Latino (30.10%). Table 1 reports demographics of the final sample. A sensitivity power analysis with G*Power (Faul et al., 2009) indicated that the sample size provided 80% power ($\alpha = .05$) to detect a Pillai $V = .06$ effect size. The procedure was identical to that of Study 1, except that the measure of compassion for others came between the measures of self-compassion and psychological distress.

Self-compassion

Study 2 used a different and well-established measure of self-compassion, K. D. Neff's (2003), pp. 26-item Self-Compassion Scale (e.g., "I try to be loving toward myself when I'm feeling emotional pain"). Participants responded on a 5-point scale ranging from *almost never* (1) to *almost always* (5; $\alpha = .93$).

Compassion for others

The Compassion Scale (Pommier et al., 2020) contains 16 items (e.g., "I like to be there for others in times of difficulty"). Participants responded to each item on a 5-point scale ranging from *almost never* (1) to *almost always* (5; $\alpha = .85$).

Psychological distress during the COVID-19 pandemic, attention checks, and demographics

We used Study 1's measure of psychological distress during the COVID-19 pandemic ($r = .66$, $p < .001$) and demographics questionnaire. Three attention checks similar to the one in Study 1 were embedded throughout Study 2.

Table 3. Study 2: zero-order correlations among all measures in the analyses.

Variable	1	2	3	4	5	6
(1) Age	-.29**	-.07	-.19*	-.07	-.21**	-.26***
(2) Work hours	-.04	-.06	.06	.33***	-.24**	
(3) Family income	.05	-.01	.03	.26***		
(4) Gender (men = 0, women = 1)	.19**	.02	-.23**			
(5) Self-compassion	-.03	.02				
(6) Compassion for others	.10					
(7) Psychological distress during the COVID-19 pandemic						

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Results

Table 3 lists the zero-order correlations among the covariates (same ones from Study 1), gender, self-compassion, compassion for others, and psychological distress during the COVID-19 pandemic.

A MANCOVA analysis indicated a significant multivariate effect of gender, $F(3, 156) = 9.36$, $p < .001$, $\eta_p^2 = .12$. Consistent with Study 1 and past research (Conversano et al., 2020; Horesh et al., 2020; Zhang et al., 2021), women ($M = 3.95$; $SD = .99$) exhibited higher psychological distress during COVID-19 than men ($M = 3.29$; $SD = 1.12$), $F(1, 158) = 8.74$, $p = .004$, $\eta_p^2 = .05$. Also consistent with past research (McDonald & Kanske, 2023), women ($M = 4.35$; $SD = .48$) reported higher levels of compassion for others than men ($M = 3.95$; $SD = .53$), $F(1, 158) = 21.17$, $p < .001$, $\eta_p^2 = .12$.

Although the average score of self-compassion was lower (and in the predicted direction) among women ($M = 3.06$; $SD = .75$) relative to men ($M = 3.19$; $SD = .70$), this difference was not statistically significant, $F(1, 157) = 1.05$, $p = .31$.

We used Hayes (2018) PROCESS macro (Model 4) for mediation with 10,000 bootstraps from Study 1 to test the self-compassion mediation model, but included compassion for others as an additional control variable. As per Figure 1, and replicating Study 1, self-compassion significantly mediated the relation between gender and mental health during the COVID-19 pandemic, $b = .14$, 95% CI [.02, .30].

Finally, to test the mediating role of compassion for others, we adopted the same Hayes' mediation model approach as above but submitted compassion for others as the mediator and included self-compassion as an additional control variable. As per Figure 2, compassion for others significantly mediated the relation between gender and psychological distress during the COVID-19 pandemic, $b = .28$, 95% CI [.12, .48], suggesting that women's higher compassion for others was also an explanatory factor in their relatively high psychological distress during the COVID-19 pandemic. Overall, in both mediation models, self-compassion and compassion for others emerged as significant mediators in the relation between gender and psychological distress, even when controlling for the influence of each other in the analyses.

Study 3

Study 3 tested the reliability of the role of compassion for others in explaining gender differences in psychological distress during the COVID-19 pandemic but with a different and well-established measure of compassion for others. In addition, as opposed to the two-item measure of psychological distress in the first two studies,

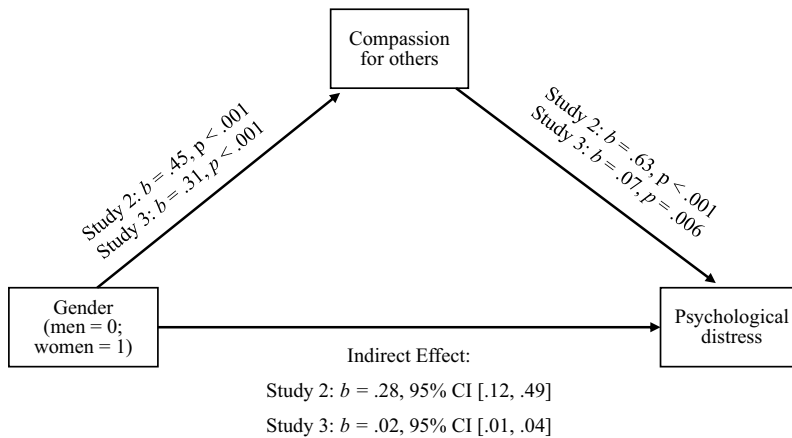


Figure 2. Studies 2 & 3: compassion for others mediates the relation between gender and psychological distress during the COVID-19 pandemic.

Study 3 included a well-established and comprehensive measure of psychological distress. Finally, and importantly, Study 3 tested if our hypothesis is supported in a substantially large and national sample, as opposed to Studies 1 and 2's college student samples.

Method

Participants and procedure

During the COVID-19 pandemic in April 2020, 2,739 participants volunteered in a cross-sectional study on a Facebook-sponsored ad campaign for social media users in the United States who were at least 18 years of age.² Participants who did not complete the measures of compassion for others and psychological distress ($n = 783$) and did not identify with a binary gender orientation (i.e., man or woman; $n = 56$) were excluded from data analyses, yielding a final sample size of $N = 1,900$. Participants ($M_{\text{age}} = 48.00$, $SD = 13.00$) were mostly women (90.50%) and non-Hispanic White (91.30%). Table 1 reports demographics of the final sample. A sensitivity power analysis with G*Power (Faul et al., 2009) indicated that the sample size provided 80% power ($\alpha = .05$) to detect a Pillai $V = .006$ effect size.

Compassion for others

Participants reported their compassion for others using the empathic concern subscale of the Interpersonal Reactivity Index (Davis, 1983). Empathic concern, a factor of compassion for others, is defined as "the tendency to experience feelings of warmth, compassion, and concern for other people" (Davis, 1983). The empathic concern subscale contains seven items (e.g., is, "I often have tender, concerned feelings for people less fortunate than me.") on a 5-point scale ranging from *does not describe me well* (1) to *describe me very well* (5; $\alpha = .84$).

Table 4. Study 3: zero-order correlations among all measures in the analyses.

Variable	1	2	3	4	5
(1) Age	—	-.18**	-.01	-.06**	-.01
(2) Employment status	.01	.07**	.14**	.10**	-.04
(3) Gender (men = 0, women = 1)	-.29**	-.05**	.07*		
(4) Parenthood (no = 0, yes = 1)	.10**	-.01			
(5) Compassion for others	-.35**				
(6) Psychological distress during the COVID-19 pandemic					

* $p \leq .01$, ** $p \leq .001$.

Psychological distress during the COVID-19 pandemic

Participants reported their psychological distress during the COVID-19 pandemic using the Perceived Stress Scale (Cohen et al., 1983), which contains 10 items (e.g., “In the past month, how often have you found that you could not cope with all the things you had to do?”) on a 4-point scale ranging from *never* (1) to *very often* (4; $\alpha = .89$).

Results

Table 4 lists the zero-order correlations among the covariates, gender, compassion for others, and psychological distress during the COVID-19 pandemic. Adopting the same analytic approach with Studies 1 and 2, we controlled for age and employment status in all analyses since past research indicates that these variables were related to psychological distress during the COVID-19 pandemic (Breslau et al., 2021). Study 3’s data included a measure of whether participants had children or not so we included them as a covariate (no children = 0; yes, had children = 1) in all analyses since parents with children had increased childcare responsibility during the COVID-19 pandemic and this was associated with heightened psychological distress for women (Carlson & Petts, 2022; Xue et al., 2021).

A MANCOVA indicated a significant multivariate effect of gender on compassion for others and psychological distress during COVID-19, $F(2, 1873) = 22.72$, $p < .001$, $\eta_p^2 = .02$, Pillai $V = .02$. Consistent with Study 2 and past research (McDonald & Kanske, 2023), women ($M = 4.20$; $SD = .63$) reported higher levels of compassion for others than men ($M = 3.90$; $SD = .62$), $F(1, 1874) = 36.45$, $p < .001$, $\eta_p^2 = .02$. Also consistent with Studies 1 and 2 and past research (Conversano et al., 2020; Horesh et al., 2020; Zhang et al., 2021), women ($M = 1.94$; $SD = .74$) experienced higher psychological distress than men ($M = 1.77$; $SD = .75$) during a one-month period in the heart of the COVID-19 pandemic, $F(1, 1884) = 11.55$, $p = .001$, $\eta_p^2 = .01$. These gender effects emerged even after controlling for age, employment status, and parenthood.

Finally, to test the mediating role of compassion for others, we used Hayes (2018) PROCESS macro (Model 4) for mediation with 10,000 bootstraps. As per Figure 2, and consistent with Study 3, compassion for others significantly mediated the relation between gender and psychological distress during the COVID-19 pandemic, $b = .02$, 95% CI [.01, .04], suggesting that women’s higher compassion for others was an explanatory factor in their relatively high psychological distress during the COVID-19 pandemic. This mediation effect emerged even after controlling for age, employment status, and parenthood.

General discussion

The current research provides novel insights into the roles of self-compassion and compassion for others in the psychological distress experienced by women relative to men during the COVID-19 pandemic. Across all three studies with college and national samples of adults from the United States, women reported higher psychological distress than men during the COVID-19 pandemic, which is consistent with existing research (Conversano et al., 2020; Horesh et al., 2020; Zhang et al., 2021). Women participants' lower self-compassion (Studies 1 and 2) and higher compassion for others (Studies 2 and 3) explained their higher psychological distress during the COVID-19 pandemic relative to men participants. Our findings not only suggest that compassion is a psychological mechanism underlying the gender disparities in psychological distress during the pandemic, but also highlight the paradoxical roles of self-compassion and compassion. That is, while both self-compassion and other-compassion can function to alleviate distress during times of hardship and suffering (Cosley et al., 2010; Ferrari et al., 2019), women were less likely to benefit from compassion at a time when perhaps they needed it the most, during a global crisis that was the COVID-19 pandemic.

The current research has implications for addressing gender disparities in psychological distress in general and especially during a global crisis. Our findings underscore how the current societal systems perpetuate gender disparities in mental health. Sociocultural beliefs about gender roles, particularly those concerning the integration of stereotypical masculine or feminine gender traits into one's self-concepts, predict compassion toward the self and others (Andrews et al., 2021; Yarnell et al., 2019). Gendered personality differences in self- and other-compassion are among the explaining factors for women's mental health during the global crisis of the COVID-19 pandemic. Existing gendered sociocultural structures punish women for pursuing agentic goals (Rudman & Glick, 2001), which might prevent them from reaping the well-being benefits of both self- and other-compassion.

Our findings also contribute to the existing body of research that highlights gender inequities during the COVID-19 pandemic (for a review, see Fisher & Ryan, 2021). For example, research shows that women carried an increased burden of unpaid domestic labor responsibilities (e.g., childcare) during the COVID-19 pandemic (Carlson & Petts, 2022). In addition, Dang and Nguyen (2021) found that women from six countries, including China, South Korea, Japan, Italy, the United Kingdom, and the United States, were more likely to permanently lose their jobs than men during the COVID-19 pandemic. These gender inequities in unpaid household labor, career impact, and economic outcomes also contributed to women's poor psychological distress during the COVID-19 pandemic (Xue et al., 2021). The past and present research on gender inequities during the COVID-19 pandemic collectively highlight the need to address the patriarchal gendered expectations placed on women during a global crisis.

Limitations and future research

A notable strength of the current research is the novelty of its findings. This research is the first to provide empirical support for the roles of self-compassion and compassion for others in explaining gender differences in psychological distress, and to do so consistently

across three studies using different reliable and valid measures of self-compassion, compassion for others, and psychological distress. This methodological rigor shows that our results are not artifacts of specific measurement tools and reflect the consistency of the underlying psychological processes. However, all three studies are cross-sectional, so our mediation findings should be interpreted with caution. Future research should test our hypothesis using longitudinal or experimental studies to establish causal relationships.

Another strength of the present research is the diversity and robustness of our samples. The first two studies included students from marginalized ethnic-racial groups in the U.S., thereby contributing to a more inclusive understanding of the psychological processes underlying mental health. The third study included a large national sample, thereby enhancing the generalizability and applicability of our findings. Yet, all three samples were adult participants from the United States, which limits the generalizability of our findings. While there has been consistent cross-cultural evidence for the gender gap in psychological distress, self-compassion, and compassion for others, future studies should aim to tackle this limitation and extend the test of our findings in other cultural and geographical contexts. Furthermore, the intersection of gender with other social identities, including ethnicity, race, and sexual orientation, may also impact how individuals experience the gender socialization of compassion for self and others. For example, Black women in the U.S. are often socialized to adopt the Black cultural racialized gendered role of the "Superwoman Schema," which emphasizes strength and caretaking while minimizing vulnerability and weakness (Thomas et al., 2022). This schema may bolster Black women's compassion for others but dampen their self-compassion. Consistent with this hypothesis, Black women who strongly endorse the Superwoman Schema are less likely to express self-compassion than those who weakly endorse it (Volpe et al., 2024). Future studies should investigate the role of intersectionality in the current findings.

Finally, the present studies focused on the COVID-19 pandemic, a global health crisis. However, it is possible that our findings may generalize to other global crises, such as natural disasters, economic recessions, or geopolitical conflicts. For example, among Syrians who were displaced after the Syria civil war began in 2011, displaced Syrian men experienced lower psychological distress than displaced Syrian women, and higher self-compassion was associated with lower psychological distress (Alsamman et al., 2024). It is possible that men's higher self-compassion lightened the psychological distress caused by heightened uncertainty and widespread disruption during a civil war. In contrast, women's higher compassion for others may exacerbate the distress experienced after repeated exposure to the mass suffering of others. Future empirical studies should test the present hypotheses in the contexts of other global crises to examine the generalizability of our findings.

Conclusion

The present research demonstrated that women's higher psychological distress during the COVID-19 pandemic is explained by their lower self-compassion and higher compassion for others, relative to men. These data highlight the paradoxical roles of self-compassion and compassion for others in psychological distress during a global

pandemic. Public health experts across the world predict that the next global pandemic is around the corner (e.g., influenza viruses, disease X; Salmanton-García et al., 2024), underscoring the need to build our resilience by investing in the medical sciences. Our psychological science research suggests that we need to also build and optimize self- and other-compassion in all individuals. One way to do so is at the individual level – interventions such as compassion-inducing writing exercises show that self-compassion is a malleable construct that increases in both the short- and long-term (Ferrari et al., 2019). Promoting and providing such interventions to women and all individuals may effectively boost well-being and decrease the gender distress disparity (K. Neff, 2021). In addition, our research underscore the need to challenge and change the patriarchal societies.

Notes

1. As part of a larger research project on self-compassion and intergroup relations, Studies 1 and 2 included a measure of psychological distress during the COVID-19 pandemic for exploratory analyses.
2. Data from Study 3 was a part of a larger research project on generalized anxiety disorder during the COVID-19 pandemic (Cordaro et al., 2021).

Disclosure statement

No potential conflict of interest was reported by the author(s).

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