



Self-Compassion and Compassion for Others: A Multiple Mediation Study of Personal Values

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Accepted: 31 July 2023 / Published online: 23 August 2023
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Abstract

Objectives Self-compassion has been associated with numerous benefits at a personal level. However, despite suggestions that self-compassion might also lead to benefits for others, findings are inconsistent, and evidence regarding putative mechanisms is lacking. This pre-registered study examined whether personal values (self-transcendence, self-enhancement, conservation) mediated the link between self-compassion and compassion for others (within one's social network) in a general population sample.

Method A community sample ($n = 707$) anonymously completed measures indexing demographics, self- and other-focused compassion, and personal values in an online survey.

Results As predicted, self-compassion was associated with higher compassion for others. A parallel multiple mediation model showed that differences in self-transcendence values (but not conservation or self-enhancement) were significant mediators ($a_3b_3 = 0.94$, 95% CI [0.40, 1.55]).

Conclusions Self-compassion may be a way to enhance compassion for others, and differences in personal values (i.e., self-transcendence) may help explain this important link. Findings suggest the importance of evaluating motivation-related mediators in self-compassion research. Moreover, the research emphasizes the importance of identifying specific pathways through which self-compassion can potentially yield benefits. Further work in this area can enhance our understanding of the construct as well as inform future self-compassion interventions.

Pre-registration This study was pre-registered in AsPredicted.org (#86706).

Keywords Self-compassion · Personal values · Compassion for others · Mediation · Self-transcendence · Self-regulation

Self-compassion continues to be linked to a wide range of adaptive outcomes (Kirby et al., 2017; MacBeth & Gumley, 2012; Zessin et al., 2015). Among the most promising benefits are its potential links to interpersonal benefits (Lathren et al., 2021). While some studies have failed to find links between self- and other-focused compassion (López et al., 2018), others suggest a positive association between these two constructs (e.g., Neff

& Pommier, 2013). Although inconsistent findings are likely influenced by several issues (e.g., different conceptualizations, measures, or the presence of un-identified moderators), a part of the difficulty in linking this dual aspect of compassion reflects an ongoing lack of pre-registered studies empirically testing questions regarding *how* and *why* self-compassion might predict other-focused compassion. Buddhist views routinely suggest that being compassionate embodies both self- and other-oriented compassion at times of suffering (Dalai Lama & Thupten, 1995). However, empirical studies testing the potential mediational pathways between the two constructs are lacking.

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Compassion for Others

In the context of the growing complexities of modern society, the fundamental significance of fostering compassion for others becomes a crucial factor in advancing societal

well-being and cohesion. Unsurprisingly, compassion for others is emphasized across major sectors of society, such as education, healthcare, and justice systems, as well as in most religious traditions (Goetz et al., 2010; Strauss et al., 2016). Whether we adopt compassionate ways to address human suffering has critical implications for the types of individuals and communities we develop into and create (Gilbert, 2021). In recent times, however, social polarization and political fragmentation have increased following major social challenges (e.g., social media, refugee crises, the Russia-Ukraine war, and COVID-19, to list a few); individuals appear to be growing more hostile towards social, political, and ideological out-groups (Finkel et al., 2020; Iyengar et al., 2019). Given such ongoing challenges, identifying factors that might facilitate compassion is critically needed.

Self-Compassion and Compassion for Others

Traditionally, developing the capacity to hold suffering in compassionate awareness includes all sentient beings (Hofmann et al., 2011). *Self-compassion*, conceptualized in various ways (Ferrari et al., 2022; Khoury, 2019; Muris & Otgaar, 2020; Neff, 2022), is compassion directed *inwards* at times of suffering (for detailed descriptions refer to Neff, 2003). Numerous intrapersonal benefits observed so far include (but are not limited to) better mental health and psychosocial well-being (Zessin et al., 2015), reductions in common psychopathology (Kirby et al., 2017; MacBeth & Gumley, 2012), and better physical health and behaviors (Cha et al., 2022; Phillips & Hine, 2019; Sirois et al., 2015). Most interventions in this area have focused on measuring *self-oriented* outcomes, even for studies focusing on other-focused compassion training (Quaglia et al., 2021). Thus, while self-compassion provides numerous benefits for the individual, whether it can deliver benefits *beyond* the self remains less well understood.

A few recent studies have shown that self-compassion is associated with better outcomes at the *interpersonal level*. For example, trait self-compassion has been associated with greater other-focused concern (e.g., perspective taking, empathic concern, and altruism) in a community adult population and meditators (Neff & Pommier, 2013), and self-compassion predicted greater helping intentions towards a hypothetical person while reducing empathy for the person (Welp & Brown, 2014). Additionally, studies in adolescents have shown positive associations between self-compassion and peer-rated prosocial behavior (Marshall et al., 2020). A recent scoping review also concluded that self-compassion was positively associated with interpersonal benefits,

particularly with adaptive parenting behaviors, and healthy relationship functioning (e.g., family, romantic friendships; Lathren et al., 2021). Taken together, these emerging studies show that self-compassion has been preliminarily linked to better interpersonal outcomes.

Furthermore, experimental studies evaluating whether self-compassion training can enhance other-oriented compassion have also found promising results. A pilot study for the Mindful Self-Compassion (MSC) program found that those receiving MSC reported greater compassion for others (Germer & Neff, 2019), while a randomized controlled trial (RCT) using Compassion Cultivation Training (CCT) found that those who received 9-week CCT reported a greater increase in compassion for others (as well as reports of greater receiving compassion from others and self-compassion) than those randomized to a waitlist control (Jazaieri et al., 2013). Other compassion-based interventions that incorporate self-compassion also return favorable results in terms of prosocial processes (Matos et al., 2022). While the generalizability of findings from clinical samples to non-clinical samples is unknown, it is possible that self-compassion may also positively impact compassion for others in a general population sample, at least in the context of responding to the suffering of others within one's social network.

Although some studies suggest a positive link between these complementary facets of compassion, the findings are not consistent. One notable study, for example, assessing the links between self-compassion, compassion for others, and their relationships with psychological well-being in a general population ($n = 328$), found that self-compassion and compassion for others were *not* correlated (López et al., 2018). More broadly, the notion in which self-compassion should increase compassion for others is unclear and infrequently studied at an empirical level.

Upon reviewing the literature, there are consistent theoretical *assertions* from Buddhist views and other traditions that imply that developing the ability to be compassionate towards the self ultimately contributes to being compassionate towards others (Dalai Lama & Thupten, 1995). Buddhist traditions highlight the importance of compassion in breaking down barriers between self and others (Quaglia et al., 2021) and progressively building the capacity to hold suffering in compassionate awareness for *all* beings, commonly starting with the self and moving towards progressively more distant others (Hofmann et al., 2011). While there are ongoing discussions on whether self-compassion and compassion for others are in fact separable and whether such distinctions can accurately capture Buddhist notions of compassion, there may be practical benefits to separating the self and other for intervention purposes.

In terms of interventional content, compassion-based interventions such as MSC (Germer & Neff, 2019), CCT (Jazaieri et al., 2013), Compassion-Focused

Therapy (Gilbert, 2014), and Cognitively-Based Compassion Training (Negi, 2013) all seek to cultivate compassion for the self *and* others. Such interventions often involve multiple targets grouped in one practice (e.g., giving compassion for the self, someone you love, a friend, an acquaintance, a stranger, someone you dislike, then all sentient beings). Variations in the target of compassion complicate the interpretation of the interventional data because it makes it difficult to determine which elements (i.e., targets) of the intervention are actually responsible for any interpersonal benefits. In the context of self-compassion, this means that it remains unclear whether elements of self-compassion per se (rather than compassionate practices in general) can influence other-focused compassion.

Ultimately, despite clear and repeated *suggestions*, empirical and theoretical works remain somewhat scattered. Furthermore, there is a lack of clarity regarding *how* self-compassion might predict other-focused compassion. Investigating possible mediators is one solution to advancing both empirical and theoretical understandings of how self-compassion might impact how we respond to suffering in others.

Self-Compassion and Mechanisms: Self-Regulation Theory

In considering the possible mechanisms linking self-compassion to various outcomes, most research to date has been explicitly or implicitly based on the *Strength Model of Self-Regulation* (Baumeister & Heatherton, 1996). According to this model, people have a general resource pool which acts as a finite supply of willpower that is “used up” each time they engage in an act that requires self-control. While it is important to note that there are ongoing issues with the replication of this work (Carter et al., 2015), many mediational studies in self-compassion research, particularly in physical health, have drawn from the self-regulation theory (Baumeister & Heatherton, 1996). In this view, as self-compassion develops, the self-regulatory resources that are no longer being consumed in protecting the self from negative mood and self-criticism are “freed up” to promote better outcomes. Unsurprisingly, most mediational studies thus far have focused on intrapsychic variables (e.g., testing affective or regulatory mediators in the context of mental and physical health outcomes; for a more comprehensive review of mediational work, see Cha et al., 2022). While this seems plausible (at least for self-oriented outcomes), the same reasoning may apply to interpersonal outcomes insofar as *any* behavior or action that requires regulation (including compassion directed towards others) may be enhanced if greater systemic resources are available.

Additionally, while this general approach has value, it also seems likely that the development of self-compassion may change or be accompanied by additional changes in aspects of *motivational* functioning in ways that can facilitate interpersonal outcomes. Motivation is fundamental to life and goal pursuits; hence, it may play a fundamental role in facilitating self-regulatory success (Baumeister & Vohs, 2007). For example, it may be that increases in prosocial motivations act as a specific pathway for increasing other-oriented compassion. More fully, there may be more stable, *specific* motivation-related individual differences among more versus less self-compassionate people (e.g., change in one’s value systems) that acts outside of any general resource pool and help explain the typically positive association between self- and other-focused compassion.

Self-Compassion, Personal Values, and Compassion for Others

In contributing to the emerging body of research evaluating the *specific* pathways linking self-compassion to other-oriented compassion, we suggest that *personal values* represent one possible mechanism of action. Personal values are broad goals that motivate actions and serve as guiding principles for our lives (Rokeach, 1973; Schwartz, 1992). Different personal values affect preferences and actions over time and across situations and predict a wide range of outcomes, providing important insight into human behavior (Sagiv et al., 2017). While studies evaluating links between self-compassion and differences in personal values are rare, there is nonetheless reason to suspect values may act as a linking variable in this instance. Firstly, the *strength* of personal values has been linked to self-compassion. For example, one study found that students randomized to a values-affirmation condition (writing about their personal value of most importance) subsequently reported higher self-compassion than those in the control condition (writing about the value of least importance; Lindsay & Creswell, 2014). Similarly, a values-affirmation task led to a higher state of self-compassion in comparison to the control condition (Gregory et al., 2017).

Additionally, studies have linked self-transcendence values and prosocial outcomes. One study, for example, grouped 19 basic values into four higher-order values (openness to change, self-enhancement, conservation, and self-transcendence; Schwartz et al., 2012) and only *self-transcendence* values predicted greater prosociality (Heilman & Kusev, 2020). Other work has shown that self-transcendence values were linked to greater altruistic behaviors among populations including adults, students, and children across various countries (Bardi & Schwartz, 2003). Given conceptual

similarities between prosocial behavior and compassion for others, such a pattern may imply that differences in personal values (particularly, self-transcendence values) may be useful in explaining the link between self-compassion and compassion for others (within one's social network).

Hence, the main aims of the current paper were to assess whether trait self-compassion predicted greater compassion for others, and whether differences in personal values would mediate this association. Specifically, we focus on attempting to predict compassion for self-identified others within one's social network (i.e., where there is likely to be a certain degree of reciprocity) rather than more distal others or strangers. In the absence of prior research evaluating the links between self-compassion and differences in values, it is challenging to establish a formal hypothesis. As noted, however, it is reasonable to suspect that different values may have different associations with self- and other-oriented compassion. Therefore, our pre-registered analytic plan was designed to assess whether personal values in three broad dimensions (self-transcendence, conservation, self-enhancement) would mediate the associations between self-compassion and compassion for others in a multiple mediation model. We planned a multiple mediation model rather than a single mediator model as it is important to simultaneously evaluate values that might *both* promote and prevent prosocial behavior (Schwartz, 2010). Given prior links between self-transcendence values and altruistic behaviors (Bardi & Schwartz, 2003), we hypothesized that only *self-transcendence values* would mediate the association between self-compassion and compassion for others.

Method

Participants

This study employed an online survey using a cross-sectional design. Eligible participants completed the survey from February 2022 to March 2022. The current study represents part of a pre-registered study and analytic plan (AsPredicted.org #86706; https://aspredicted.org/GK8_K6D). The only deviation from the pre-registered measurement, sampling, power, and analytic plan was the increase in our sample size from $n = 400$ to $n = 700$. Hence, a final sample consisted of New Zealand, Aotearoa community sample of adults aged 18+ years ($n = 707$).

Measures

Self-Compassion

The debate regarding the conceptualization and measurement of self-compassion is ongoing (Ferrari et al., 2022;

Khoury, 2019; Muris & Otgaar, 2020; Neff, 2022). However, one of the most common approaches defines self-compassion as relating to oneself in times of suffering (Neff, 2003). Given suggestions that the total self-compassion score most comprehensively captures a self-compassionate approach to suffering under Neff's model (Neff, 2022), participants completed the 26-item Self-Compassion Scale (SCS; Neff, 2003). The SCS uses a 5-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*). Negatively worded items were reverse-coded, and the overall scale mean was calculated such that higher scores indicate greater trait self-compassion. Previous studies have found that SCS has high internal consistency across populations ($\alpha =$ ranging from 0.75 to 0.92) (McBride et al., 2022) as well as good convergent and discriminant validity (refer to Neff, 2016). Within the current study, SCS also demonstrated high internal consistency ($\alpha = 0.88$; $\omega = 0.87$).

Personal Values

Participants completed the 10-item Short Schwartz's Value Survey (Lindeman & Verkasalo, 2005). This widely used measure is based on Rokeach's Value Survey (1973). Each of the 10 items reflects distinct value types reflecting a continuum of related motivations: self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism (Schwartz, 1992). Responses to items were given on a 9-point Likert-type scale ranging from 0 = *opposed to my values*, 1 = *not important*, 4 = *important*, to 8 = *of supreme importance*.

Prior structural examinations of the 10-item short version have found that the items load onto two broad value dimensions—conservation and self-transcendence (Lindeman & Verkasalo, 2005). However, given the unique values characterizing the multi-cultural nature of contemporary New Zealand society, we conducted a principal component analysis (PCA) of the 10 items to verify the structure in our sample. A PCA with oblimin rotation on the 10 items revealed a 3-factor structure, with eigenvalues exceeding 1.00 (2.89, 1.94, and 1.64, respectively). Together, these 3 factors accounted for 64.77% of the total item variance. Three items loaded onto a first factor—conformity, tradition, and security (with loadings of 0.88, 0.82, and 0.72, respectively); four onto a second (hedonism, power, achievement, and stimulation, with loadings of 0.79, 0.77, 0.76, and 0.64); and three onto the third factor (universalism, self-direction, benevolence, with loadings of 0.85, 0.75, and 0.71). These loadings, coupled with face and construct validity considerations, led us to label and operationalize three value constructs as *conservation* (conformity, tradition, and security), *self-enhancement* (hedonism, power, achievement, and stimulation), and *self-transcendence* (universalism, self-direction, benevolence). Each scores were computed by averaging the items loading on each component,

and reliability coefficients were acceptable: conservation ($\alpha = 0.76$; $\omega = 0.79$), self-enhancement ($\alpha = 0.74$; $\omega = 0.74$), and self-transcendence ($\alpha = 0.71$; $\omega = 0.74$). Higher scores reflect a higher value placed on the importance of conservatism, self-enhancement, and self-transcendent values.

Compassion for Others

As a measure of the tendency to have compassion for others, participants completed the Compassionate Engagement and Action Scales (CEAS; Gilbert et al., 2017). The original CEAS includes three scales that assess the three orientations or “flows” of compassion: self-compassion (CEAS self-compassion), compassion for others (CEAS for others), compassion received from others (CEAS from others). Each scale contains 13 items measuring two different elements of compassion: engagement (6 items and 2 filler items) and action (4 items and 1 filler item). Responses are provided on a 10-point Likert-type scale ranging from 1 (*never*) to 10 (*always*), based on how frequently the event/s occur. The engagement and action elements can be scored separately for each of the three scales or as a single factor (Gilbert et al., 2017). In this study, we used the CEAS for other subscales as a total score. Higher scores indicate higher levels of compassion for others. As per the instructions accompanying the measure, participants were asked to think about the *people in their life* when they become distressed to be compassionate towards. Previous study has found good psychometric properties including internal consistency ($\alpha =$ ranging from 0.79 to 0.95), test-retest reliability, and construct validity (Gilbert et al., 2017; Murfield et al., 2021). CEAS for others showed excellent internal consistency in the current sample ($\alpha = 0.90$; $\omega = 0.90$).

Demographics

Demographic characteristics assessed included age, gender, ethnicity, education level, employment status, household income, religion, and COVID-related factors. Gender and age were used as covariates given established differences in self-compassion between men and women (Yarnell et al., 2015) and a general increase in self-compassion with age (Homan, 2016). Gender and age have also been commonly used as covariates in other mediational studies in the self-compassion literature (Homan & Sirois, 2017; Hu et al., 2018; Sirois et al., 2019).

Procedure

Participants were recruited for a study on “Self-Compassion and Health” via university mailing lists and social media platforms. Recruitment materials included a Qualtrics link leading directly to an online eligibility check. Given the

systematic differences in self-criticism and fears of compassion between clinical and non-clinical samples (Gilbert et al., 2014), inclusion criteria required that participants were aged 18+ years and not currently diagnosed with severe mental health and/or chronic illness diagnoses (e.g., severe depression and anxiety disorders).

Participants completed eligibility checks and, for those meeting the inclusion criteria, proceeded to read a detailed study description; given anonymity, the questionnaire was submitted as consent. Having confirmed eligibility, participants completed a 30 to 45-min survey on self-compassion, values, and other-focused compassion (among other measures). A full listing of study measures can be found here (https://aspredicted.org/GK8_K6D). At the end of the survey, a separate survey allowed participants to enter contact information to enter a draw to win an iPad.

Data Analyses

Initial calculations based on prior research and power estimations suggested that approximately 400 participants would provide adequate statistical power (i.e., using the simulation method by Fritz & MacKinnon (2007) for a sample size needed for 0.80 power for percentile bootstrap test) as per our pre-registered analytic plan (AsPredicted.org #86706; https://aspredicted.org/GK8_K6D). However, early checks ($n = 445$) showed a very large percentage of female participants (82%). Given some of the gender-stratified analyses denoted in the pre-registration, we increased the sample size to 700 with a subsequent focus on increasing male representation. As noted (e.g., Nelson et al., 2018; Simmons et al., 2021), deviating from the pre-registration plan is acceptable as long as a compelling justification for the deviation is offered and there is transparency in the deviation.

Data screening and cleaning were completed according to the pre-registered approach and following established recommendations (Tabachnick et al., 2007). Consequently, descriptive data (e.g., means, standard deviations) and correlations between key variables were examined. Prior to conducting the mediation analyses, we checked that all regression assumptions were met (e.g., linearity, normality, homoscedasticity, uncorrelatedness, and multicollinearity) using IBM SPSS (version 28). As per our pre-registration, the absence of significant outliers was ascertained by calculating Mahalanobis distance, Cook’s values, Leverage values, and looking at standardized residual plots (for more details, please see https://aspredicted.org/GK8_K6D). Additionally, there were no missing values for the established measures due to the survey format (i.e., forced-response options) employed in Qualtrics in accordance with our Ethics statement.

To initially test the hypothesis that self-compassion would positively relate to compassion for others, a bivariate correlation was conducted. To test the hypothesis that

reporting particular values (e.g., self-transcendence values) would mediate the associations between self-compassion and compassion for others, a multiple-parallel mediation model was conducted. We chose the parallel multiple mediation model as it allows for the estimation of the three indirect effects in parallel while controlling for the unique variance explained by each mediator. PROCESS version 3.5 for SPSS using 10,000 bootstrap samples and a 95% confidence interval was used. PROCESS uses ordinary least squares regression-based path analytic frameworks for estimating direct and indirect effects in single and multiple mediator models. In particular, we employed Model 4 (PROCESS model template for simple and parallel mediators, which allows for up to ten mediators operating in parallel) (Hayes, 2017).

Furthermore, we used the bootstrapping method as this approach is recommended over Sobel’s test or the causal steps approach due to having higher power while maintaining sufficient control over the Type-1 error (MacKinnon et al., 2004). More specifically, we used percentile bootstrap confidence intervals for our multiple mediation analyses. As previously suggested, the forced symmetry of ordinary confidence intervals can result in issues with Type-1 errors and power when used in hypothesis testing. However, percentile bootstrap confidence intervals can be asymmetrical as they are built on an empirical estimation of the sampling distribution of the indirect effect, rather than on an assumption of normal distribution sampling (Preacher & Hayes, 2008). Hence, percentile bootstrap confidence intervals can be improved by adjusting the percentile values derived from the sorted distribution of bootstrap estimates, which determines the bounds of the interval (Efron & Tibshirani, 1994).

To determine the significance of mediation, the bootstrap interval of the indirect effect should not include zero (Hayes, 2017). Compared to prior mediation procedures (e.g., Baron & Kenny, 1986) For the current mediation

model, self-compassion was entered as the independent variable, compassion for others as the outcome, and the three value dimensions (conservation, self-enhancement, self-transcendence) were entered as mediators. Lastly, gender and age were entered as covariates based on previous self-compassion mediation literature (e.g., Homan & Sirois, 2017; Sirois et al., 2019).

Results

Data from 13 participants were excluded due to a low response rate for some demographic variables, leaving a final sample of 694 participants. Demographically, age ranged from 18 to 86 years ($M = 37.65, SD = 14.61$), 66% were female, 79% were employed either full or part-time, 63% had a bachelor’s degree or higher, and 32% were currently enrolled as students; 59.5% of our sample identified as NZ European, 16% as Asian, 8% as Māori, 4% as Pacific Peoples, 2% as Middle Eastern/Latin American/African, and 10% as Other.

The mean values, standard deviations, and Pearson correlations for the main variables and covariates are presented in Table 1 for the final sample of 694 participants. Results indicated that self-compassion was significantly correlated with compassion for others ($r = 0.12, p = 0.001$). Thus, individuals reporting higher self-compassion also reported greater compassion for others (as indicated by a higher score on CEAS - Compassion to Others subscale).

Mediation Results—Parallel Multiple Mediation Model

The conceptual diagram of the parallel multiple mediation model is presented in Fig. 1. Using PROCESS macro, a

Table 1 Bivariate correlations among self-compassion, compassion for others, value dimensions of conservation, self-enhancement, self-transcendence, and covariates of age and sex ($n = 694$)

Variables	1	2	3	4	5	6	7
1. Self-compassion	-						
2. Compassion for others	0.12***	-					
3. Value dimension: conservation	0.10**	0.13***	-				
4. Value dimension: self-enhancement	-0.09*	-0.01	0.17***	-			
5. Value dimension: self-transcendence	0.11**	0.35***	0.24***	0.15***	-		
6. Age	0.29***	0.08*	0.15***	-0.28***	0.01	-	
7. Sex (male = 1; female = 2)	0.12***	0.22***	0.11**	-0.07*	0.21***	0.06	-
<i>M</i>	3.06	73.33	4.86	4.54	6.45	37.65	1.66
<i>SD</i>	0.69	13.72	1.75	1.50	1.26	14.61	0.47
α	0.88	0.90	0.76	0.74	0.71	n/a	n/a
ω	0.87	0.90	0.79	0.74	0.74	n/a	n/a

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

parallel multiple mediation model was used to determine the effect of self-compassion on compassion for others through the three value dimensions (i.e., conservation, self-enhancement, self-transcendence).

In contemporary mediation testing, the *total effect* (c path) refers to the relationship between the independent and dependent variables, the *direct effect* (c') refers to the relationship between the independent and dependent variable while controlling for the mediator, and the indirect effect (e.g., mediating effect) is the product of a (the relationship between the independent variable and the mediator) and b (the relationship between the mediator and dependent variable, when controlling for the independent variable). Hence, the total effect can be calculated by $c = c' + a \times b$ (Meule, 2019).

In this study, the total effect of self-compassion on compassion for others was significant $c = 2.89, p < 0.001, 95\% \text{ CI } [1.37, 4.42]$, such that individuals reporting higher self-compassion also reported higher compassion for others. After entering the three prospective value mediators, the direct effect of self-compassion on compassion for others remained significant $c' = 1.90, p = 0.01, 95\% \text{ CI } [0.43, 3.37]$, indicating the link between self-compassion and compassion for others remained significant when controlling for the value mediators.

As can be seen in Fig. 1, only the self-transcendence value dimension was a significant mediator between self-compassion and compassion for others. Self-compassion was positively associated with self-transcendence values $a_3 = 0.28, p < 0.001, 95\% \text{ CI } [0.14, 0.42]$, with those scoring higher on self-compassion also reporting greater self-transcendence values. Self-transcendence was also associated with compassion for others $b_3 = 3.34, p < 0.001,$

95% CI [2.53, 4.14], such that those reporting greater self-transcendence values also reported greater compassion for others. In terms of mediation, the significant indirect effect $a_3b_3 = 0.94, 95\% \text{ CI } [0.40, 1.55]$ showed that individuals with greater self-compassion also reported greater compassion for others through greater levels of self-transcendence values (when controlling for the mediating effects of conservation and self-enhancement values). Dividing the indirect effect by the total effect, self-transcendence explained about 32% of the mediating effect between self- and other-focused compassion.

Conversely, and providing early evidence for the specific importance of self-transcendence values in the link between self- and other-focused compassion, while self-compassion was associated with conservation values $a_1 = 0.20, p = 0.05, 95\% \text{ CI } [0.00, 0.40]$, it was not associated with compassion for others $b_1 = 0.22, p = 0.45, 95\% \text{ CI } [-0.35, 0.80]$. The indirect effect of self-compassion on compassion for others via the conservation value dimension was also not significant $a_1b_1 = 1.00, 95\% \text{ CI } [-0.09, 0.21]$. Similarly, self-compassion was not associated with self-enhancement values $a_2 = -0.04, p = 0.60, 95\% \text{ CI } [-0.21, 0.12]$, nor was it associated with compassion for others $b_2 = -0.29, p = 0.41, 95\% \text{ CI } [-0.97, 0.39]$. Hence, the indirect effect of self-compassion on compassion for others via self-enhancement value dimension was also not significant $a_2b_2 = 0.01, 95\% \text{ CI } [-0.07, 0.15]$. In summary, there were no significant indirect effects of self-compassion on compassion for others via self-enhancement or conservation values.

In comparing the indirect effects using pair-wise contrasts, the specific indirect effect of self-compassion through conservation was not statistically different than the specific

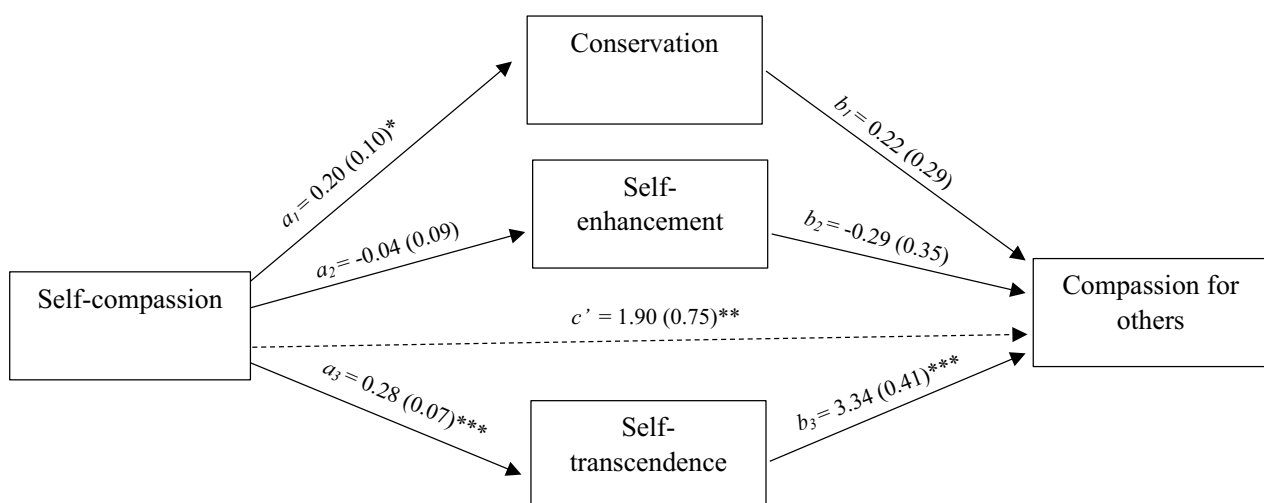


Fig. 1 Proposed parallel multiple mediation model with self-compassion as predictor, value dimensions of conservation, self-enhancement, and self-transcendence as mediators, and compassion for others

as outcome with age and gender as covariates. Note. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

indirect effect through self-enhancement (difference = -0.32 ; 95% CI = -0.15 to 0.22). However, the specific indirect effect of self-compassion through conservation was statistically different than the specific indirect effect through self-transcendence (difference = -0.89 ; 95% CI = -1.52 to -0.36). Likewise, the specific indirect effect of self-compassion through self-enhancement was also statistically different than the specific indirect effect through self-transcendence (difference = -0.93 , 95% CI = -1.55 to -0.36).

Discussion

The question of whether greater self-compassion is associated with greater compassion for others remains an area of active debate with both supportive (Neff & Pommier, 2013) and null (López et al., 2018) findings in evidence. This pre-registered study tested the relationship between self-compassion and compassion for others, investigating whether the effects of self-compassion extend beyond the self to include others in one's social network. We also tested whether individual differences in *particular* value dimensions (e.g., conservation, self-enhancement, and self-transcendence) mediated this relationship. Consistent with expectation, greater self-compassion predicted greater compassion for others, and only differences in self-transcendence values (universalism, self-direction, benevolence) emerged as a significant mediator. Multiple mediation analyses showed that values of conservation (conformity, tradition, and security) and self-enhancement (hedonism, power, achievement, and stimulation) were not significant mediators. Hence, while self-compassion may be one way to enhance compassion for others, it appears to do so partly via differences in *particular* values (e.g., self-transcendent values). In summary, the current findings both contribute to work linking self-compassion to other-focused outcomes, as well as testing whether differences in values might contribute to the effects in this area. Below, these findings are revisited in light of prior studies and potential explanations are presented before study limitations, and future directions are discussed.

One initial contribution of this work is in further investigating the question of whether self-compassion predicts compassion for others in certain contexts. While prior work in this area has been mixed (López et al., 2018; Mills et al., 2018), our findings are more consistent with prior studies finding that higher self-compassion predicts higher compassion for others (Neff & Pommier, 2013), higher prosocial behavior in adolescents (Marshall et al., 2020; Yang et al., 2021), and greater willingness to help an individual in need (Welp & Brown, 2014). In addition to further documenting a possible link between self- and other-oriented compassion in a large community sample using a different compassion for others measure, this study extends the potential

mediators typically considered in self-compassion research. A recent systematic review (Cha et al., 2022) noted that most mediational studies assess stress and/or emotion regulation as potential mediators between self-compassion and intrapersonal outcomes. However, the differences between more and less self-compassionate people may extend well beyond such variables, particularly where outcomes are distinct from those commonly studied in mental health (Cha et al., 2022). Our pre-registered hypotheses and the analytic plan proposed that differences in core personal values may be one plausible way in which self- and other-focused compassion might be linked.

Consistent with expectation, we found that individuals with higher self-compassion also reported greater self-transcendence values as well as greater conservation values and lower self-enhancement values. In terms of human behavior, values theory proposes that individuals *trade off* between competing values (Schwartz, 2010). Consistent with this notion, a previous study has found a positive link between altruistic values and ethical decision-making and an inverse association for self-enhancement values (Fritzsche & Oz, 2007). Similarly, another study found that internalized prosocial motivations mediated the links between acting with awareness mindfulness and social mindfulness (Kil et al., 2021), possibly because acting with awareness helps individuals inhibit automatic negative responses and enhances prosocial motivations. Comparably, in the current study, it is possible that greater self-compassion may allow people to see their own and other's suffering as part of the wider human experience. Suffering then acts as a means of connection (rather than fear or judgment) which could foster self-transcendence (i.e., prosocial) values, leading to greater compassion for others in one's social network.

Importantly, in terms of other explanatory possibilities (e.g., that holding more important values *per se* is important), our multiple mediational tests showed no evidence that self-enhancement (hedonism, power, achievement, and stimulation) and conservation values (conformity, tradition, and security) mediate this link. In this regard, it seems reasonable to suspect that not all socially focused values are created equal. Schwartz (2010) circular structure of value dimensions positions self-enhancement (personal focus) values *in opposition* to self-transcendence values (social focus) and it seems likely that there is something specific about self-transcendence values (encompassing universalism, self-direction, benevolence) in the link between self- and other-focused compassion. While conservation and self-transcendence values are both *socially focused* value dimensions, self-transcendence is more concerned with promoting other's welfare, while other values that are "beyond the self" (i.e., conformity and tradition) are more concerned with meeting social expectations (Schwartz, 2010). Our findings highlight that beyond the personal focus, *not* all socially

focused values are equally effective in enhancing compassion for others.

In contributing to work linking self-compassion to other-focused compassion and providing a pre-registered demonstration of the relevance of values to the self- and other-compassion link, these findings also begin to question the hegemony of self-regulatory or resource-based views of self-compassion. Prior studies of self-compassion based on self-regulation theory (Biber & Ellis, 2019; Sirois, 2015) and limited strength models have broadly suggested that (a) people have a limited capacity for acts of self-control and other operations of the system and (b) that in reducing the need to manage distress, depression, anxiety, and self-criticism, more of this general resource is available to facilitate adaptive outcomes.

To date, it is not clear how personal values might reflect or impact regulatory capacity. It is challenging to fit differences in the relative importance of values into this common perspective. While it is entirely possible that the development of self-compassion may change the regulatory capacity available to the individual for pursuing goals, our data also suggest that the values (more broadly, motivations) that characterize persons with varying levels of self-compassion are themselves different. Thus, our initial suggestion here is that systematically considering how the development of self-compassion may promote (or is accompanied or characterized by) changes in *values* or *motivation* may be another way in which we can start to think about how self-compassion works to influence outcomes, in this case, other-focused compassion.

Empirically, previous works have shown that incentives can eliminate the effect of ego depletion (Baumeister & Vohs, 2007), and that resource depletion can lead to *increases* in prosocial behavior when environments (i.e., charitable requests) activate motivations that facilitate other-oriented actions or potentially, suppress those that interfere with them (Fennis et al., 2009). While motivational considerations might interact with resource capacity to predict prosocial behavior, it is also possible that the *content* of the motivations that accompany self-compassion exerts an influence on outcomes, independently of their implications for resources. The notion that compassion for the self or others is a motivational process is not new (see, e.g., Gilbert's 2009 model). It is, however, consistent with the possibility that the explanatory pathways linking self- and other-focused compassion go beyond the amount/capacity of regulatory resources to include elements of *what* a person is regulating towards.

More broadly, our suggestion here is that this demonstration of a *motivational* mediator of personal values linking self- and other-focused compassion should be taken as indicating that the potential mediators linking self-compassion to outcome are not yet well understood. As previously

mentioned, we have suggested that one's value system is likely an important mediator for some outcomes, but numerous other candidate mediators might be identified. For example, Zhang et al. (2020) found in the context of romantic relationships, acceptance of one's own flaws mediated the effect of self-compassion on acceptance of a partner's flaws (Zhang et al., 2020). Another study with adolescents found that *relatedness* (along with trust) mediated the effect of self-compassion on prosocial behavior (Yang et al., 2019). While the populations, study outcomes, and context are distinct, such findings are consonant with the possibility that (a) not all mechanisms reflect general resource considerations, and (b) *distinct* mechanisms may mediate the associations between self-compassion and distinct outcomes.

Limitations and Future Directions

Several limitations of the present study warrant attention. Firstly, as with all cross-sectional data (and despite the pre-registration of the study and analyses), certainty regarding causality is not possible. At this early stage, the temporal sequencing of the key variables could be interchangeable. However, since our core interest lies in expanding our thinking regarding the potential *mechanisms* linking self-compassion to outcomes, we positioned personal values as the mediators. Nonetheless, it is possible that differences in values could precede self-compassion and/or that differences in values are also an important outcome variable. Hence, future work would benefit from employing experimental and prospective designs. Such designs will clarify causal and temporal links between self-compassion and compassion for others, and enable testing of whether the mediational effects of personal values are stable or fluctuate in time.

Second, given the ongoing debate regarding the nature and measurement of self-compassion (Ferrari et al., 2022; Khoury, 2019; Muris & Otgaar, 2020; Neff, 2022), it is worth noting that these findings reflect *particular* measurement decisions. Furthermore, in addition to the general biases and method covariation issues associated with self-report measures (Podsakoff et al., 2012), and the fact that we employed a short version of the Schwartz Value Survey (Lindeman & Verkasalo, 2005), responses to other's suffering may vary depending on context. For example, while Gilbert's Compassionate Engagement and Action Scales (CEAS; Gilbert et al., 2017) indexes responses to suffering in particular others (i.e., people in their life), other compassion-based measures such as the Santa Clara (Hwang et al., 2008), place more weight on responses to strangers.

Prior evidence suggests that the predictors of prosocial processes vary between kin and non-kin relationships (Ashton et al., 1998) and it seems likely that such variations also exist between kin and non-kin relationships or between closer and more distal contacts with respect to

compassion. Given that the current study focused on others with some degree of regular social contact, findings may not be generalizable to other contexts (e.g., non-kin relationships where there is a lower likelihood of reciprocity, such as being compassionate to a stranger). More generally, it is likely that different findings might emerge with other indices of other-focused compassion, depending on *whom* the recipient of compassion might be and in what context. Clearly, future works should evaluate other relevant contexts as well as identify additional factors that might moderate the extent to which self-compassion might facilitate compassion for others (e.g., the degree of complementarity of self and others (Sahdra et al., 2023)). Additionally, implementing behavioral or physiological measures in addition to self-report (see, e.g., Lim & DeSteno, 2016) in future studies will be beneficial for reducing potential method-related covariation in self- and other-focused compassion measures.

Finally, although the sample is reasonably sized and encompasses a range of demographic characteristics, they are self-selected, non-clinical, and reflective of a single geopolitical context. While our mediational findings may have relevance for self-compassion interventions for the general population, further mediational tests in specific clinical population types are necessary before making further conclusions in future clinical works. Additionally, cultures may vary in the experience and expression of both compassion (Koopmann-Holm & Tsai, 2017) and self-compassion (Montero-Marin et al., 2018), as well as in terms of modal cultural values (Hofstede et al., 2005). Further work assessing whether the same values mediate in different groups is a promising next step.

Despite the noted limitations, this study contributes to the growing body of work investigating a possible relationship between self-compassion and compassion for others, notably by demonstrating that differences in self-transcendent values mediated this link. While prior studies have considered relatedness and trust as possible mediators for similar links (Yang et al., 2019), this study represents one of the few tests of potential motivational pathways (rather than general resource pathways) linking self-compassion to outcomes. Through pre-registered studies, future studies should continue to empirically and theoretically test distinct pathways, strengthening the evidence base for notions regarding the potential interpersonal and social benefits of self-compassion.

Author Contributions Jane Cha: conceptualization; methodology; data collection; statistical analyses; writing—original full manuscript; editing; finalizing. Anna Serlachius: supervision; writing—reviewing. Alana Cavadino: statistical analyses—reviewing. James Kirby: writing—reviewing. Nathan Consedine: main supervision; conceptualization; writing—reviewing; editing; finalizing. All authors collaborated

in editing and reviewing the final version of the manuscript and approved it for submission.

Use of Artificial Intelligence AI was not used in preparing, editing, or reviewing this manuscript.

Funding Open Access funding enabled and organized by CAUL and its Member Institutions

Data Availability Participants in this study did not consent to the open sharing of their anonymous data. As such, the data from this study is not available to other researchers, except via ethical approval by the University of Auckland Human Participants Ethics Committee.

Declarations

Ethics Approval This study was undertaken in accordance with the ethical standards of the University of Auckland Human Participants Ethics Committee (REF: UAHPEC 23406).

Informed Consent Informed consent was obtained from all participants in the study.

Conflict of Interest The authors declare no competing interests.

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