

# Self-Compassion, Social Constraints, and Psychosocial Outcomes in a Pet Bereavement Sample

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## Abstract

This study investigated self-compassion in the context of grief following the death of a companion animal in a recently bereaved sample ( $N = 431$ ). We addressed social contexts and individual differences focusing on how psychosocial outcomes vary as a function of social constraints, as well as individual differences in self-compassion and use of continuing bonds (CB). We observed that self-compassion related to the frequency of engagement in CB. Self-compassion also moderated relationships between grief severity and depression as well as social constraints and depression. We recommend future research on self-compassion training and psychosocial outcomes, especially for those experiencing social constraints or disenfranchised grief.

## Keywords

self-compassion, pet bereavement, psychosocial outcomes, social constraints, continuing bonds

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Research on pet bereavement has demonstrated that the death of a beloved companion animal can equal or surpass the psychological turmoil of the death of an important human attachment figure (Field, Orsini, Gavish, & Packman, 2009; Packman, Field, Carmack, & Ronen, 2011; Sable, 2013). Indeed, humans bond with nonhuman animals in ways that are comparable with human–human attachment (Noonan, 1998; Sable, 2013). As such, pets are often seen as part of the family (Raupp, 1999; Raupp, Barlow, & Oliver, 1997; Sable, 2013) or even as a surrogate child (Vevver, 2008). In fact, interactions with pets have been shown to increase levels of oxytocin in humans, paralleling oxytocin effects among mothers breastfeeding infants (Frankel, 2014). Taken together, research on pet bereavement strongly supports a model of strong human–animal emotional commitments and the potential for profound grief following the death of a pet (Packman, Carmack, & Ronen, 2012; Packman et al., 2014; Bussolari et al., 2017; Habarth et al., 2017; Bussolari et al., 2018). Further, the intensity of pet bereavement has been associated with symptoms of depression, anxiety, and somatization (Habarth et al., 2017; Hunt & Padilla, 2006). Similarly, bereaved pet owners have additionally reported disruption in both their activities of daily living and social activities (Quackenbush & Glickman, 1984). Thus, psychosocial functioning represents an important set of outcomes to study in research on pet bereavement.

### **Psychosocial Outcomes and the Social Contexts of Pet Bereavement: Social Constraints**

Research has identified links between social constraints and psychological adjustment in the context of human bereavement (e.g., Juth, Smyth, Carey, & Lepore, 2015). Social constraints can limit or discount experiences of grief and have been associated with a range of negative outcomes related to grief in human populations (Juth et al., 2015; Lepore & Revenson, 2007) such as symptoms of depression, poor physical health, and overall stress. Importantly, Juth et al. (2015) note that social constraints reflect a substantial perceived deficit in the ability of those in one's social network to provide support (Lepore, Silver, Wortman, & Waymant, 1996), which is a more nuanced assessment of social support than approaches that only consider the quantity of contacts in one's network. Similarly, social constraints have been identified in at least one early study as a strong predictor of physical and psychological health (Cohen & Syme, 1985).

Pet bereavement scholars have recently identified the frequency and importance of social constraints following the death of a pet (Habarth et al., 2017). Matching similar findings on human bereavement (Juth et al., 2015), these authors reported consistent associations between social constraints and negative psychosocial outcomes such as depression, anxiety, somatization, and functional

impairment. Such experiences are important to note, given the high frequency of pet death each year (Hewson, 2014).

## **Disenfranchised Grief**

Social constraints fit under a larger umbrella of experiences commonly referred to as disenfranchised grief, or grief that is not socially acknowledged or valued (Doka, 2008). Disenfranchised grief can complicate the process of bereavement (Kaufman & Kaufman, 2006) and deepen or prolong negative emotional reactions. Characteristics of disenfranchisement such as social constraints have been observed as key elements of the pet bereavement experience (Habarth et al., 2017). Neimeyer and Jordan (2002) conceptualize disenfranchised grief as a pattern of empathic failures, or “the failure of one part of a system to understand the meaning and experience of another” that “subtly or obviously invalidates the bereaved person, family, or community’s distinctive narrative of the loss” (p. 95).

Invalidation and a failure to understand the meaning of loss happens frequently for bereaved pet owners, as their support system does not often validate the profound depth, unconditional love, and longevity of their relationship. In fact, because an animal’s lifespan is normally shorter than that of a human, bereaved pet owners may undergo numerous disenfranchised losses throughout their lives (Westgarth et al., 2013). When their losses are socially discounted, pet owners may experience isolation and disconnection in the context of important social relationships (Toray, 2004), potentially affecting their psychosocial functioning. Subsequently, social constraints may undermine psychological adjustment following a pet’s death, as bereaved pet owners may feel less capable of coping when they feel unable to share their feelings with others (Manne & Glassman, 2000).

## **Continuing Bonds, Self-Compassion, and Individual Differences in Pet Bereavement**

### *Continuing Bonds*

Continuing bonds (CB) represent a coping effort to continue an emotional connection to the deceased despite the permanent, physical separation (Field, Nichols, Holen, & Horowitz, 1999). CB have been theorized as a means toward transforming the meaning of the loss in order to sustain the relationship (Field, 1999; Klass, Silverman, & Nickman, 1996). Examples of CB include dreams, looking at photographs or making videos, reminiscing, and engaging in rituals such as yearly birthday dinners or creating an altar. The authors’ (Packman et al., 2011) findings suggest that the degree to which people engage in CB relates negatively to CB grief and mental health symptoms.

Associations between CB and psychosocial outcomes have since been replicated in additional work on pet bereavement (Habarth et al., 2017).

### *Self-Compassion*

Self-compassion has been described as the attention and care we direct toward ourselves (Neff, 2003a, 2003b). Inspired by Buddhist and other Eastern philosophical traditions, Neff (2003a) proposed that self-compassion involves three facets, each comprising two polarities. The first is self-kindness (vs. self-judgment). Self-kindness is when we are considerate and empathetic toward ourselves without being judgmental. The next component is a sense of a common humanity (vs. a sense of isolation). This refers to the appreciation that we are human and it is natural for us to make mistakes and have difficulties. Last, the cultivation of mindfulness (vs. overidentification) refers to present-moment, nonjudgmental awareness and attention. An illustration of mindfulness would be noticing both positive and negative emotional experiences and considering them with curiosity.

Although the study of self-compassion is a fairly new construct in the psychological literature, initial studies suggest promising connections to psychological well-being and emotional resilience (Neff, 2009). Self-compassion has been positively associated with well-being and negatively with depression and anxiety (Fong & Loi, 2016; Neff, Kirkpatrick, & Rude, 2007). Further, Leary, Tate, Adams, Allen, and Hancock (2007) demonstrated that self-compassion moderated reactions to distressing situations involving negative events. In this study, self-compassion was also associated with less intense evocations of negative emotions as well as thought patterns that generally facilitate people's ability to cope with negative events. Findings from another study (Muris, Meesters, Pierik, & De Kock, 2016) demonstrated negative relationships between self-compassion and symptoms of anxiety and depression. Moreover, self-compassion practice has also been described as a way to activate the innate soothing and self-regulating functions associated with trauma and loss (Gilbert, 2013).

There is minimal work on self-compassion and grief, but initial findings relevant to bereavement suggest important associations. Neff (2009), for example, noted that engaging in self-compassion is helpful when we perceive our suffering as being too difficult to bear or impossible to control. In one of the few studies explicitly examining grief and self-compassion, Lenferink, Eisma, De Keijser, and Boelen (2017) found a negative association between self-compassion and emotional distress in a sample of relatives of long-standing missing persons. Taking previous research into account, it stands to reason that within the context of pet bereavement, self-compassion could play a supportive and protective role, especially when we perceive our suffering as a consequence of our own actions, for example, as in cases of euthanasia or the sudden death of a pet.

## *The Current Study: Rationale, Aims, and Hypotheses*

The current study investigates social contexts and individual differences in experiences of pet bereavement, with particular focus on how psychosocial outcomes vary as a function of exposure to social constraints, as well as individual differences in self-compassion and use of CB in a recently bereaved pet loss sample. Our work is based on previous findings on human loss and self-compassion (e.g., Fong & Loi, 2016; Muris et al., 2016; Neff, 2009; Neff, Kirkpatrick & Rude, 2007), as well as previous evidence of the utility of CB in the context of pet bereavement (Bussolari et al., 2017; Packman et al., 2011; Packman et al., 2014; Packman, Bussolari, Carmack, & Katz, 2016). To our knowledge, the current study is novel in its consideration of self-compassion as it relates to grief, psychosocial outcomes, and CB expressions among recently bereaved pet owners. To this end, we pursued three key aims, investigating (a) the relationship between self-compassion and the frequency of CB efforts, (b) the degree to which self-compassion moderates relationships between grief intensity and psychosocial outcomes, and (c) the degree to which self-compassion moderates relationships between socially constrained grief experiences and psychosocial outcomes. Specifically, we hypothesized the following.

**Hypothesis 1 (H1):** CB efforts would be more frequent as a function of self-compassion scores.

**Hypothesis 2 (H2):** Self-compassion would moderate relationships between grief intensity and four psychosocial outcomes: anxiety (H2a), depression (H2b), somatization (H2c), and functional impairment (H2d).

**Hypothesis 3 (H3):** Self-compassion would moderate the relationship between social constraints and four psychosocial outcomes: anxiety (H3a), depression (H3b), somatization (H3c), and functional impairment (H3d).

## **Method**

### *Participants*

Participants in this study were cat ( $n = 131$ ; 30.4%) and dog ( $n = 300$ , 69.6%) owners whose pets had died less than 6 months before survey completion. A total of 497 people opened the link to begin responding to the survey, and 431 participants who met demographic criteria for age (at least 18) and time since death (less than 6 months;  $M = 20.6$  days; standard deviation [ $SD$ ] = 36.4; Median = 5 days) responded to enough items to be included in the majority of analyses. Ages ranged from 18 to 76 years ( $M = 47.1$ ,  $SD = 12.8$ ) and the

majority of participants (86.3%) were women. The sample was highly educated (34.1% had attended graduate school and an additional 52.2% had completed an undergraduate college degree). Most participants were married or partnered (62.2%) and most did not have children (60.1%). The sample was relatively homogeneous in terms of racial and ethnic identities, with 88.9% of participants self-identifying as White and Non-Hispanic. Just over half (56.7%) of the respondents endorsed a spiritual or religious practice, with 30.1% identifying as Christian, 15.5% identifying as Catholic, 5.2% identifying as spiritual but not religious, 3.5% identifying as Jewish, and the remaining 7% identifying as Buddhist, New Age, Unitarian Universalist, or another religious/spiritual identity. The deceased pets' ages ranged from 0.25 to 22 years, with a mean age of 11.8 years ( $SD = 4.3$ ).

### Procedures

Participants in this study were part of a larger study of bereaved pet owners. Direct solicitation through in-person pet bereavement support groups and posts in online pet bereavement support groups were used to recruit participants. Potential participants were informed about the goals of the study and the affiliations of the researchers via a cover letter and received a link to the Survey Monkey website. Participants had to be at least 18 years old and experienced a pet death within 12 months to participate in the parent study from which the current sample was drawn. The study was approved by the Institutional Review Board at Palo Alto University, Palo Alto, CA). Participants had the option to complete the survey online or via hard copy, although all participants in the current study had responded online. The survey began with a statement of informed consent and individuals who agreed to participate selected *yes/agree* before beginning the survey. All participants who started the survey were provided with a list of Internet resources related to pet bereavement support. Participants completed a demographic questionnaire followed by a set of five measures that assessed experiences of grief, CB, social constraints, self-compassion, and psychosocial functioning. No compensation was offered to participants.

### Measures

After reverse-coding as appropriate, mean scale scores were calculated for all measures unless otherwise indicated. Values of  $\alpha$  reported later are based on the current study's sample and basic descriptive data for continuous measures are reported in Table 1.

*Inventory of Complicated Grief.* The Inventory of Complicated Grief (ICG; Prigerson & Jacobs, 2001; current study  $\alpha = .86$ ) is a 19-item self-report

**Table 1.** Pearson Correlations and Continuous Scale Descriptives ( $n = 392-431$ ).

| Demographic covariates                   | Continuous scales |       |        |        |        |        |        |        |
|--|-------------------|-------|--------|--------|--------|--------|--------|--------|
|  | 1                 | 2     | 3      | 4      | 5      | 6      | 7      | 8      |
| Income                                   | -.17**            | -.11* | -.17** | .13*   | -.10   | -.20** | -.09   | -.10*  |
| Education                                | -.19**            | -.07  | -.05   | .07    | -.08   | -.11*  | -.10*  | -.07   |
| Age                                      | -.16**            | -.03  | -.04   | .27**  | -.18** | -.21** | -.24** | -.04   |
| Gender (1 = men, 2 = women)              | .11*              | .06   | .08    | -.05   | .14**  | .10*   | .17**  | .10*   |
| Partnered/Married (0 = no, 1 = yes)      | -.08              | .02   | -.15** | .16**  | -.10*  | -.15** | -.02   | -.06   |
| <b>Continuous scales (min-max)</b>       | <b>Mean (SD)</b>  |       |        |        |        |        |        |        |
| 1. Grief severity (1.22-5.0)             | 3.6 (.82)         | .37** | .34**  | -.45** | .52**  | .57**  | .48**  | .51**  |
| 2. Continuing bonds-Frequency (0.36-3.0) | 1.5 (.48)         | -     | .12*   | -.11*  | .31**  | .24**  | .27**  | .15**  |
| 3. Social constraints (1.0-4.0)          | 2.1 (.73)         | -     | -      | -.26** | .29**  | .36**  | .32**  | .22**  |
| 4. Self-compassion-Full scale (1.12-5.0) | 2.8 (.73)         | -     | -      | -      | -.54** | -.60** | -.37** | -.43** |
| 5. Anxiety (1.0-4.0)                     | 2.6 (.70)         | -     | -      | -      | -      | .61**  | .65**  | .56**  |
| 6. Depression (1.0-4.0)                  | 1.9 (.87)         | -     | -      | -      | -      | -      | .53**  | .55**  |
| 7. Somatization (1.14-4.0)               | 2.4 (.64)         | -     | -      | -      | -      | -      | -      | .56**  |
| 8. Functional impairment (1.29-4.0)      | 2.7 (.55)         | -     | -      | -      | -      | -      | -      | -      |

Note. Because ordinal demographic variables did not violate assumptions of linear relationships with continuous study variables, Pearson product-moment correlations are reported for all bivariate relationships.  
\* $p < .05$ . \*\* $p < .01$ .

questionnaire in which respondents indicate the severity of grief symptoms over the past month. Using a 5-point scale (from *almost never* to *always*), respondents rate feelings about their deceased pet over the previous month. Statements include “I feel disbelief over the death,” “I feel lonely ever since the death,” and “I feel that a part of myself died along with my deceased pet.” The current study employed mean scale scores of a 9-item version of this instrument that had been previously used by Filanosky (2003) in a study on grief and CB in an adult sample. This measure was selected to allow meaningful comparison with previous findings in bereavement studies that had included variables such as CB. In addition, the ICG has a high upper limit of severity for grief symptoms, which we deemed appropriate for our participants who were recruited through pet bereavement support groups and websites intended to provide support and resources to people experiencing significant distress. Following the approach of Habarth et al. (2017), ICG scores in the current study were conceptualized as representing grief severity rather than complicated grief because of the relatively recent modal time since death in the current sample.

**Continuing Bonds Inventory.** The Continuing Bonds Inventory (CBI; Field, Packman, & Carmack, 2007; current study  $\alpha = .74$ ) can be used to assess participants’ frequency of behaviors promoting ongoing connection with their deceased pet as well as the amount of comfort or distress derived from these CB. In the current study, we were most interested in how self-compassion related to participants’ efforts to maintain connection, so we analyzed data from items assessing frequency of behaviors such as engaging in memorials and rituals and holding onto possessions. Participants indicated how often they endorsed each behavior during the previous month using a 4-point (from 0 = *not at all* to 3 = *often*). A mean score was calculated across the 14 scale items.

**Social Constraints Measure.** The Social Constraints Measure (SCM; Lepore & Ituarte, 1999; current study  $\alpha = .94$ ) in the current study assessed the degree to which participants feel dismissed or invalidated when discussing their pet bereavement with others. The SCM was originally developed to evaluate how much women diagnosed with cancer were dismissed or avoided by others when trying to discuss their illness. Using a 4-point scale (1 = *never* and 4 = *often*), participants responded to items about social interactions following the death of a pet, including how often others “minimize your problems,” “avoid you,” and “do not seem to understand your situation.”

**Self-Compassion Scale.** The Self-Compassion Scale (SCS; Neff, 2003a; current study  $\alpha = .94$ ) is a 26-item self-report measure comprising six subscales: Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Overidentification. Items comprising the subscales of Self-Judgment, Isolation, and Overidentification were reverse-scored before calculation of the overall SCS

mean score. Respondents are asked to rate how often they behave in the stated manners on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). After reverse-scoring the relevant items, a total or mean score is calculated (possible range: 26–130, with higher scores indicating greater self-compassion). Sample items for the SCS include “I am kind to myself when I experience suffering” (self-kindness) and “I try to see my failings as part of the human condition” (common humanity). The SCS has demonstrated high internal consistency in previous research (full scale  $\alpha = .92$ , subscale  $\alpha$ s  $.75$  to  $.81$ ; Neff, 2003a). The SCS has been used in numerous cultural contexts and has been observed to correlate with measures of life satisfaction, depression, anxiety, and perfectionism (Neff, 2003a). Overall, this scale has reflected strong content validity, construct validity, and convergent validity (e.g., Neff, 2003a; Neff, Pisitsungkagarn, & Hsieh, 2008; Neff & Vonk, 2009).

**General Health Questionnaire.** The General Health Questionnaire (GHQ-28; Goldberg, 1978; current study subscale  $\alpha = .85$ – $.94$ ) was originally developed as a tool to detect functional psychiatric disorders in community and primary care settings. Its subscales delineate somatic symptoms (e.g., “pains in the head”), anxiety (e.g., feeling “edgy” and “nervous”), depression (e.g., “felt hopeless” and “life not worth living”), and psychosocial functioning (e.g., “takes longer to do things” and “enjoyment of daily activity”). Participants endorsed symptoms, thoughts, and experiences across the subscales via a 4-point scale (1 = *not at all*; 4 = *much more/worse than usual*). Existing literature supports the test–retest reliability (Robinson & Price, 1982;  $r = .78$ – $.90$ ) and item consistency (Failde, Ramos, & Fernandez-Palacin, 2000;  $r = .90$ – $.95$ ) of the GHQ-28. In the current study, we calculated four separate mean scores to reflect the four GHQ-28 symptom subscales.

**Demographic, contextual, and other survey items.** Participants responded to questions about their marital status, income, and general home life. There were additional continuous and open-ended survey questions about participants’ experiences of pet bereavement that were not included in the current study’s analyses.

### Data Analyses

We used IBM SPSS Version 25 to conduct analyses for this study. We controlled for ICG scores when assessing the relationship between self-compassion and CB frequency (H1), given our intention to explore the relationship between these two variables independently of grief severity. To determine additional controls, we reviewed bivariate relationships among demographic (age, gender, income, relationship status) and other study variables. In cases where a demographic variable related to both an independent variable (IV) and a dependent variable (DV), we included that variable as a control in our analyses. Finally, we

employed multiple linear regression analyses (using the Enter method) to test relationships between continuous IV and DV, and we used the Hayes PROCESS add-on for SPSS to test hypotheses involving interactions. Given previous findings indicating the multidimensional nature of self-compassion, we conducted initial hypothesis testing using the overall mean SCS score and pursued follow-up tests probing for consistency of findings across SCS subscales.

## Results

### *Preliminary Analyses*

First, we examined univariate characteristics and noted that our continuous variables evidenced no concerning deviations from normality in terms of skew and kurtosis (all were  $< |1.0|$ , which is well within the limits recommended by West, Finch, and Curran (1995). We also observed that sample means for continuous variables were all within a 1-point range of each scale's midpoint for response options. Descriptive data for continuous scales are reported in Table 1.

Next, before computing bivariate correlation coefficients to determine potential controls for hypothesis testing, we conducted analyses of variance and ruled out any violations of linear relationships between continuous study variables and the ordinal variables of income and education. Seeing no such violations, we have reported product-moment correlational analyses (see Table 1), which revealed significant relationships between several demographic variables and planned IV and DV. However, there were no significant differences in study variables by racial or ethnic identity categories. All demographic variables that related to both an IV and a DV for a planned analysis were included as covariates/controls in our final models, the results of which are described later.

### *Hypothesis Testing*

Our first aim involved investigating the relationship between self-compassion and CB frequency, after controlling for participants' income level as well as their grief severity related to the deceased pet. A multiple regression analysis supported our first hypothesis, in that overall self-compassion,  $B = .07$ ,  $t(404) = 2.12$ ,  $p = .031$ , related significantly to CB frequency, adjusted  $R^2 = .15$ ,  $F(3, 404) = 25.50$ ,  $p < .001$ . Follow-up regression analyses with the same control variables suggested that the relationship between self-compassion and CB frequency was primarily driven by two specific subscales: Common Humanity,  $B = .07$ ,  $t(404) = 2.87$ ,  $p = .004$ ; adjusted  $R^2 = .16$ ,  $F(3, 404) = 26.90$ ,  $p < .001$ , and Self-Kindness,  $B = .06$ ,  $t(404) = 2.48$ ,  $p = .014$ ; adjusted  $R^2 = .16$ ,  $F(3, 404) = 26.07$ ,  $p < .001$ .

Our second aim, which was partially supported, was to test the moderating effects of self-compassion on the relationship between grief severity and

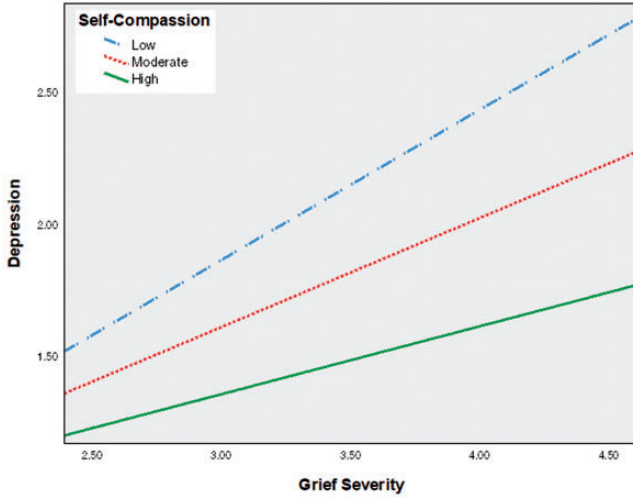
**Table 2.** Summary of Regression Coefficients for Variables Predicting GHQ Subscale Scores (H2;  $n = 392-414$ ).

|   | Anxiety |          | Depression |        | Somatization |        | Functional impairment |        |
|---|---------|----------|------------|--------|--------------|--------|-----------------------|--------|
|   | B       | SE (B)   | B          | SE (B) | B            | SE (B) | B                     | SE (B) |
| Control variables                           |         |          |            |        |              |        |                       |        |
| Income                                      |         |          | -0.09*     | .04    |              |        | -0.01                 | .04    |
| Education                                   |         |          | 0.00       | .05    | -0.03        | .04    |                       |        |
| Age   | 0.00    | .00      | 0.00       | .00    | -0.01**      | .00    |                       |        |
| Gender (1 = men, 2 = women)                 | 0.15    | .08      | 0.05       | .09    | 0.21**       | .08    | 0.09                  | .07    |
| Partnered/Married (0 = no, 1 = yes)         | -0.03   | .06      | -0.09      | .07    |              |        |                       |        |
| Predictor variables                         |         |          |            |        |              |        |                       |        |
| Grief severity                              | 0.34**  | .13      | 1.01***    | .15    | 0.23         | .13    | 0.40***               | .11    |
| Self-compassion                             | -0.30   | .16      | 0.29       | .18    | -0.21        | .16    | -0.04                 | .14    |
| Grief Severity $\times$ Self-Compassion     | -0.02   | .04      | -0.21***   | .05    | 0.02         | .04    | -0.04                 | .04    |
| Adjusted $R^2$ -Full model                  | .39***  | .51***   | .28***     | .32*** |              |        |                       |        |
| F for change in $R^2$ caused by interaction | 0.13    | 18.61*** | 0.27       | 1.30   |              |        |                       |        |

Note. SE = standard error.  
 \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

psychosocial outcomes among bereaved pet owners. As summarized in Table 2, we observed that while self-compassion moderated the relationship between grief severity and depression, self-compassion was not a significant moderator of relationships between grief severity and anxiety, somatization, or functional impairment. Specifically, the relationship between grief intensity and depression symptoms was less pronounced as a function of higher self-compassion (see Figure 1). Further, follow-up tests indicated that the interaction (or lack thereof) between self-compassion and grief intensity in predicting psychosocial outcomes was consistent across the different subscales of self-compassion.

Our third aim considered self-compassion as a moderator of the relationships between social constraints and psychosocial outcomes in our recently bereaved sample. Significant moderated regression analyses indicating partial support of our Aim 3 hypotheses are summarized in Table 3, showing that results for full-scale self-compassion varied according to the predicted psychosocial outcome. First, we noted that social constraints predicted poorer outcomes across all four symptom categories. Second, we observed that overall self-compassion moderated this relationship for only one outcome: depression. Specifically, the relationship between social constraints and depression symptoms was less pronounced as a function of higher self-compassion (see Figure 2). Third, follow-up



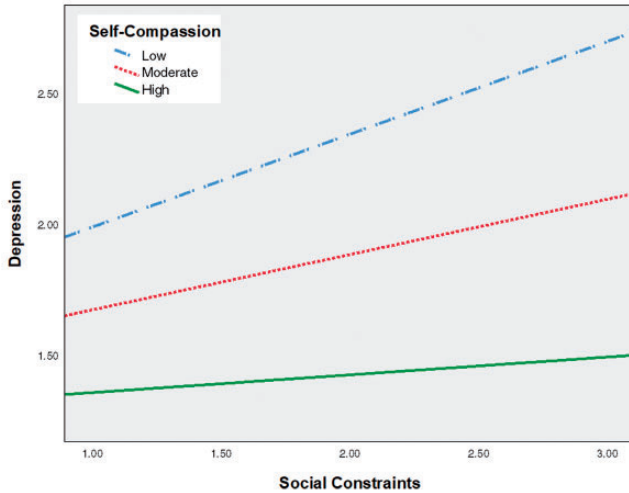
**Figure 1.** Self-compassion as a moderator of the relationship between grief severity and depression symptoms ( $n = 392$ ). See Table 2 for regression coefficients and model summary.

**Table 3.** Summary of Regression Coefficients for Variables Predicting GHQ Subscale Scores (H3;  $n = 392-414$ ).

|  | Anxiety |        | Depression |        | Somatization |        | Functional Impairment |        |
|--|---------|--------|------------|--------|--------------|--------|-----------------------|--------|
|  | B       | SE (B) | B          | SE (B) | B            | SE (B) | B                     | SE (B) |
| <b>Control variables</b>                       |         |        |            |        |              |        |                       |        |
| Income   |         |        | -0.12**    | .04    |              |        | -0.03                 | .03    |
| Partnered/Married<br>(0 = no, 1 = yes)         | -0.02   | .06    | -0.05      | .07    |              |        |                       |        |
| <b>Predictor variables</b>                     |         |        |            |        |              |        |                       |        |
| Social constraints                             | 0.38*   | .15    | 0.76***    | .17    | 0.49**       | .15    | 0.27*                 | .13    |
| Self-compassion                                | -0.31** | .11    | -0.24      | .13    | -0.07        | .11    | -0.16                 | .10    |
| Social Constraints $\times$<br>Self-Compassion | -0.08   | .06    | -0.20**    | .06    | -0.10        | .05    | -0.07                 | .05    |
| Adjusted $R^2$ —Full model                     | .31***  |        | .42***     |        | .19***       |        | .20***                |        |
| F for change in $R^2$<br>caused by interaction | 2.44    |        | 10.59**    |        | 3.59         |        | 2.55                  |        |

Note. GHQ = General Health Questionnaire; SE = standard error.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .



**Figure 2.** Self-compassion as a moderator of the relationship between social constraints and depression symptoms ( $n = 392$ ). See Table 3 for regression coefficients and model summary.

tests indicated that (a) all self-compassion subscales except for Common Humanity demonstrated interactions with social constraints in predicting depression; (b) Common Humanity was the only subscale that moderated the relationship between social constraints and functional impairment,  $B = -0.08$ ,  $t(387) = -2.01$ ,  $p = .045$ ; adjusted  $R^2 = .12$ ,  $F(4, 387) = 13.79$ ,  $p < .001$ ; the positive relationship between social constraints and functional impairment was less pronounced as a function of higher common humanity; and (c) neither overall self-compassion nor any of its subscales moderated the relationships between social constraints and anxiety or somatization.

## Discussion

To our knowledge, this study is the first to investigate self-compassion in the context of grief following pet bereavement. In order to investigate the relevance of self-compassion to pet bereavement, we assessed the use of CB coping strategies in relation to grief and self-compassion. We additionally explored the extent to which self-compassion moderated the relationships between both grief and social constraints with a range of psychosocial outcomes. Overall, our hypotheses were partially supported, given that we observed different results according to the specific psychosocial outcomes and facets of self-compassion included in each model.

There are several unique aspects of the current sample. Overall, respondents were recently bereaved and reported a high level of grief severity ( $M = 3.6$ ,  $SD = 0.82$ ), similar to our previous but larger ( $N = 4,336$ ) pet bereavement loss study (Habarth et al., 2017;  $M = 3.5$ ;  $SD = 0.85$ ). It is additionally important to note that the sample was primarily White, female, and college educated, and that the majority of participants did not have children. Last, for the purposes of this article, we only included those participants who had lost a dog or a cat and excluded the small number of participants who had reported other pet species. This was done solely for statistical purposes, as the authors acknowledge the potential meaning of bereavement across all human–animal relationships.

At the bivariate level, self-compassion scores were negatively related to grief, social constraints, somatization, anxiety, functional impairment, and depression. In essence, participants who were more oriented toward self-compassion also reported less intense grief, reported less frequency of dismissive or negative social interactions, and reported better psychosocial functioning. These findings were consistent with previous studies using self-compassion data (Korner et al., 2015; Lenferink et al., 2017; Muris et al., 2016; Neff et al., 2007; Özyesil & Akbag, 2013). Our hypotheses dealing with mental health outcomes were generally supported and also consistent with self-compassion literature. One possible explanation for our H1 finding that self-compassion predicted CB is that self-compassion tends to relate negatively to fear of failure and positively to health-supportive behaviors (Germer & Neff, 2013). Thus, it is possible that bereaved pet owners with higher self-compassion may engage in more CB because of an associated willingness to take risks and attend to their symptoms of distress through self-soothing efforts.

Our second hypothesis involved testing self-compassion as a moderator of the relationships between grief and mental health outcomes. Research has shown that the death of a significant other is profound and can lead to depression (Onrust & Cuijpers, 2006) and profound grief (Lundorff, Holmgren, Zachariae, Farver-Vestergaard, & O'Connor, 2017). In the current study, we observed less pronounced associations between grief and depression as a function of higher self-compassion. That is to say, bereaved pet owners who are more self-compassionate may experience less pronounced depressive symptoms in response to intense grief. Neff (2009) notes that self-compassionate people have an orientation toward their own health and well-being and are less likely to castigate themselves when they fail. As reported in a previous study (Bussolari et al., 2018), for example, even when bereaved pet owners report that their decision to euthanize was the appropriate one, they may greatly suffer and blame themselves. Hence, our findings in the current study underscore how a more self-compassionate orientation has the potential to support bereaved pet owners.

Results of analyses testing the third hypothesis suggest that the relationship between social constraints and depression may depend on the extent to which an

individual exhibits self-compassion. That is, when someone who is grieving feels unsupported by others, self-compassion may buffer the effects of lack of support on depression symptoms. We pose this interpretation in light of previous findings (Habarth et al., 2017) connecting social constraints to more negative psychosocial outcomes, including depression and functional impairment.

The findings of the current study represent cross-sectional associations that are consistent with previous literature on similar topics. If future experimental work supports our initial thoughts about potential cause–effect relationships, it may be that directing compassion toward oneself leads to internalized empathy and protection against feelings of disenfranchisement in the experience of grief. Packman et al. (2014) as well as Neimeyer and Jordan (2002) both discuss the role of empathic bridging as a means of support for the disenfranchised bereaved. For example, Packman et al. (2014) noted that the very process of responding to questions on an online survey helped bereaved pet owners express their feelings about the loss and share their unique experiences.

## **Conclusions, Limitations, and Future Directions**

Consistent with previous work that underscores the important role of self-compassion in relation to grief and mental health issues (e.g., Lenferink et al., 2017; Zessin, Dickhäuser, & Garbade, 2015), this study provides an understanding into how bereaved pet owners coping with the death of a beloved animal may experience this loss. The study additionally assesses how self-compassion may moderate relationships between grief, social constraints, and psychosocial outcomes, especially depression. Taken together, our findings support future experimental and longitudinal efforts to explore the specific roles that self-compassion and CB play in positive coping and bereavement.

A number of limitations need to be taken into account while interpreting our findings. First, this study is a cross-sectional design, which precludes drawing firm inferences about causality. Another limitation of the study is that we used a self-selected group of participants who visited pet bereavement support websites and completed this survey. Bereaved individuals who access support after a pet dies may be experiencing a greater sense of loss and grief (Stallones, 1994) and, thus, may not be representative of the bereaved pet owner population at large. That said, however, data from the current sample may be quite relevant to clinicians who would likely see a characteristically similar population in their practice (Habarth et al., 2017).

Given the current study's findings, we recommend further research to illuminate experiences of pet bereavement as well as other kinds of commonly disenfranchised losses. As suggested earlier, future experimental research could investigate the effect of self-compassion training on bereaved pet owners, paying particular attention to changes in CB, and psychosocial functioning over time as a function of changes in self-compassion. Importantly, skills to

increase self-compassion can be taught (e.g., loving kindness and mindfulness meditation trainings). Therefore, it may be worth engaging in future experimental studies to investigate self-compassion psychoeducation as a protective intervention and a means of empathic bridging among recently bereaved adults.

It is also important to interpret the current study's findings in light of the relatively homogeneous demographic nature of the sample. Most participants reported being highly educated, White women; thus, future research should engage in broader sampling efforts and the results of the current study should be applied with caution to members of groups not adequately represented in our study. Finally, in addition to experimental work on self-compassion training for those who have experienced pet loss and other kinds of disenfranchised grief, it may also be useful to assess posttraumatic growth and other forms of meaning making as dependent variables in future work that incorporates consideration of self-compassion in the context of loss.

In conclusion, our findings suggest that self-compassion might be associated with greater engagement in self-soothing coping efforts such as CB. And perhaps most importantly, self-compassion may buffer previously observed deleterious relationships between social constraints and psychosocial outcomes, most notably depression, in the context of pet bereavement.

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**Wendy Packman** has studied, presented and written extensively on sibling bereavement and continuing bonds, the impact of a child's death on parents, and the psychological sequellae of pet loss. She is the primary investigator of an international cross-cultural study examining the continuing impact of a pet's death.