

# Effectiveness of a Mindfulness-Based Retreat on Distress and Well-Being in Bereaved Parents

Research on Social Work Practice  
1-13  
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DOI: 10.1177/1049731520921242  
journals.sagepub.com/home/rsw  


Kara Thieleman<sup>1</sup>  and Joanne Cacciatore<sup>1</sup>

## Abstract

**Purpose:** This study evaluated the effectiveness of a grief-focused mindfulness-based retreat on psychological distress (trauma, anxiety, and depression) and well-being (mindfulness and self-compassion) in bereaved parents. **Method:** A quasi-experimental design with two nonequivalent groups (intervention, comparison) and three observations was used. **Results:** Mixed-model repeated-measures analysis of variance showed significant reductions in distress at posttest in the intervention group, with significant group differences on four of the seven scales. While reductions were maintained at follow-up, group differences were only significant for one trauma subscale. The intervention group showed significant increases in two of the four mindfulness facets (describe and act with awareness) and self-compassion at posttest, although group differences were not significant and gains were not maintained at follow-up. A third mindfulness facet, nonjudge, increased significantly at follow-up, with significant group differences. **Discussion:** This approach shows promise for reducing some areas of distress and improving the nonjudging mindfulness facet in bereaved parents.

## Keywords

grief, mindfulness, trauma, field of practice, depression, anxiety

Bereaved parents represent a vulnerable subgroup of grievers. The death of a child is widely considered a form of traumatic bereavement. Bereaved parents tend to show higher levels of grief-related distress compared to other bereaved populations (Kersting et al., 2011). This distress may endure for many years and take multiple forms, including trauma symptoms. For instance, compared to matched controls, bereaved parents had more trauma symptoms for an average of 14–15 months post-loss (Dyregrov et al., 2003). In a convenience sample, 42% of parents showed significant trauma responses for an average of 4.3 years postloss (Cacciatore et al., 2014). A similar study with a Romanian sample of bereaved parents found that 83.5% showed significant trauma responses for an average of 3.78 postloss (Thieleman & Cacciatore, 2018).

Anxious and depressive symptoms are also frequently experienced by bereaved parents. In a nationally representative sample, both were more common in bereaved parents than in nonbereaved matched controls 4–6 years after a child's death (Kreichbergs et al., 2004). In a convenience sample of parents, an average of 4.5 years after a child's death, 22% reported significant depressive symptoms, while 41% reported intense experiences related to longing and yearning for the child (McCarthy et al., 2010). In another convenience sample, almost 58% of parents showed significant depressive symptoms, and 37% showed significant anxious symptoms for an average of 4.3 years after a child's death (Cacciatore et al., 2014). In a

Romanian convenience sample, 89.4% and 83.5% reported significant depressive and anxious symptoms, respectively, an average of 3.78 years after a child's death (Thieleman & Cacciatore, 2018).

## Mindfulness-Based Interventions

Mindfulness-based interventions have emerged as a holistic approach for alleviating many forms of psychological distress. Mindfulness comprises two elements: “the self-regulation of attention so that it is maintained on immediate experience, thereby allowing for increased recognition of mental events in the present moment” and “adopting a particular orientation toward one's experiences in the present moment . . . characterized by curiosity, openness, and acceptance” (Bishop et al., 2004, p. 232). Meta-analyses of mindfulness-based interventions have found efficacy in reducing trauma (Hopwood & Schutte, 2017), depression, and anxiety (Hofmann et al., 2010), all common areas of distress in bereaved parents.

<sup>1</sup> School of Social Work, Arizona State University, Phoenix, AZ, USA

## Corresponding Author:

Kara Thieleman, School of Social Work, Arizona State University, 411 N. Central Ave., Phoenix, AZ 85004, USA.  
Email: kthielem@asu.edu

Mindfulness involves noticing internal experiences, including thoughts, emotions, and sensations, without identifying with them; this enhances the ability to respond deliberately to them rather than reacting automatically (Baer & Krietemeyer, 2006). Mindfulness is thought to bring about decreased distress through a process of reperiencing, which consists of a shift away from identifying with experience toward greater objectivity, clarity, perspective, and equanimity in the face of internal experience (Shapiro et al., 2006). Reperiencing represents a changed relationship to internal experience and is theorized to improve self-awareness, emotional regulation, and cognitive, emotional, and behavioral flexibility as well as increase tolerance for painful emotional states and decrease avoidance of them (Shapiro et al., 2006).

Mindfulness may be especially beneficial for bereaved parents who often experience significant trauma when a child dies. Trauma can lead to difficulties remaining present with painful emotions and attempts to avoid painful states (Follette et al., 2006). Bereaved parents may attempt to avoid their grief, and avoidance tactics can be reinforced over time, restricting the range of internal experience. Mindfulness can increase the ability to remain present with experiences, decrease avoidance and attempts to suppress trauma-related emotions and thoughts, and facilitate healing after trauma (Follette et al., 2006).

### *Mindfulness-Based Approaches for Grief*

Despite a vast body of research documenting the benefits of mindfulness-based interventions, to our knowledge, there are only three published studies of mindfulness-based approaches for grief. One study evaluated the effectiveness of grief counseling using a mindfulness-based framework for clinicians emphasizing attunement, trust, therapeutic touch, egalitarianism, nuance, and death education; it found significant reductions in depressive, anxious, and trauma symptoms in the sample, which consisted mostly of bereaved parents (Thielemann et al., 2014). A second study of a 2-day workshop called the Mustard Seed Project used a secularized Buddhist perspective on impermanence along with narrative and constructivist approaches to meaning-making for people experiencing unwelcome change; it reported significant reductions in two of the six aspects of grief-related distress and increases in meaning-making and personal growth after the workshop (Neimeyer & Young-Eisendrath, 2015). Most participants were bereaved, with 32% of this group having lost a child. A third study was of a 5-week version of Mindfulness-Based Stress Reduction for women living in poverty in rural India who had experienced perinatal loss (Roberts & Montgomery, 2016a). This study found significant reductions in perinatal grief and anxiety/depression and an increase in one of the five mindfulness facets 6 weeks later. At follow-up 12 months postintervention, there were additional decreases in anxiety/depression and perinatal grief as well as increases in four of the five mindfulness facets (Roberts & Montgomery, 2016b).

While these results are encouraging, these studies all lacked comparison groups; more rigorous designs are needed to better

gauge the effectiveness of mindfulness-based approaches for grief-related difficulties. The current study sought to evaluate the effect of a 4-day, mindfulness-based retreat on psychological distress and well-being in bereaved parents using a quasi-experimental design. The research question guiding this study was whether the retreat intervention would be effective in reducing trauma, depressive, and anxious responses and in increasing mindfulness and self-compassion in a sample of bereaved parents. The hypothesis was that the intervention group would show decreases in these areas of psychological distress and increases in these areas of psychological well-being over time and relative to the comparison group. Trauma, depressive, and anxious responses are common forms of distress experienced by this population. Increasing mindfulness and self-compassion may act as a mechanism to improve well-being overall and decrease perceived distress in this group.

### *Intervention*

The retreat, *Selah: Fully Inhabited Grief: A Contemplative Retreat for Traumatic Bereavement*, was offered by international nonprofit serving families after the death of a child. It took place in the spring at a secluded retreat center near Sedona, AZ, set amid the region's natural beauty. It drew attendees locally, nationally, and, in a few cases, internationally. The retreat was based on the Selah Model (Cacciatore, 2012) that consists of three parts. "Being with grief" involves turning toward painful emotions nonjudgmentally, pausing from other concerns to allow for greater attunement with grief while developing greater self-awareness and self-compassion. "Surrendering to grief" involves learning to trust oneself more fully through attending to each emotional state that arises and paying greater attention to emotions around the loss narrative. "Doing with grief" involves establishing a stronger psychological equilibrium, grappling with meaning postloss, and allowing emotions around the loss to shift (Cacciatore, 2012). One day of the retreat was devoted to each component, in the order outlined. The retreat was not designed to eliminate grief. Instead, it sought to transform participants' relationship to grief by increasing attunement with grief and decreasing avoidance and judgment of grief-related distress. It avoided categorizing grief as abnormal or normal, recognizing the wide range of grief responses, coping strategies, and psychosocial challenges that bereaved parents' experience.

The same two practitioners with experience in grief, trauma, and mindfulness practice led the retreat both years. They were joined each year by different additional facilitators. Most of the facilitators were bereaved parents and all engaged in some form of mindfulness practice. The retreat utilized formal and informal mindfulness practices in individual, dyadic, and small group activities over 4 days, including guided meditations, mindful movement, art, nature walks, discussions about grief, grief-related rituals, and opportunities for silent reflection. The retreat followed the same basic format both years, with minor variations based on each cohort's needs and preferences.

The retreat began in the evening with introductory information and an invitation to place photos or other mementos of attendees' deceased children on a memorial table. A bonfire followed, where attendees introduced themselves and their deceased child. Each day thereafter began with an optional guided meditation, then breakfast and gathering in the meeting hall for information on the day's focus and activities. Each day generally included group check-ins, discussions, psychoeducation, guided mindful movement or yoga, the reading of poetry, and dyad and/or small-group activities. The retreat ended on the morning of the fourth day after the group convened for the last time, with a discussion on transitioning out of the retreat.

The holistic nature of the retreat represents an excellent fit with social work values and perspectives. This approach was developed based on the experiences and preferences of bereaved parents. It recognizes the normative nature of continuing grief and distress in bereaved parents, while refraining from labeling these experiences as individual psychopathology. Instead, it is based on empirical evidence and practice experience in its recognition of the wide range of grief responses, coping strategies, and psychosocial challenges that bereaved parents face (Cacciatore, 2012). The retreat focuses on helping parents had better understand their experiences, situating them in the wider social context that is often invalidating and/or stigmatizing and leads to a lack of social support and further distress. Thus, healing is viewed as involving interpersonal and communal components rather than solely intrapersonal processes.

## Method

Because randomization was not possible, this study used a quasi-experimental design with two nonequivalent groups, an intervention group and a comparison group, and three waves: pretest, posttest, and follow-up. Researchers were not blind to study condition; however, the outcome measures were self-report scales, minimizing potential researcher bias.

## Sample

Participants were recruited from individuals already enrolled in the retreat in either 2014 or 2015; research participation was voluntary and not required to attend the retreat. With the approval of the agency providing the retreat, attendees were contacted by email to invite their participation and were also given the chance to participate upon arrival at the retreat center. Retreat attendees were eligible to participate in the study if they were at least 18 years old and had experienced the death of a child after 14 weeks of gestation. While miscarriage is often a painful loss, there may be significant differences in the intensity of grief, the loss experience, and outcomes relative to the population under study here (Brier, 2008). Of the total 49 eligible retreat attendees, 38 agreed to participate, (77.55%), 21 of the 27 (77.78%) in 2014 and 17 of the 22 (77.27%) in 2015. Of these, 37 completed the pretest survey.

The comparison group was recruited from an online support forum for bereaved parents offered by the agency providing the retreat. A separate comparison group was recruited each year; only individuals who had joined the forums since 2014 data collection ended were invited to participate in 2015 to avoid overlap. Inclusion requirements were the same as for the intervention group, minus retreat attendance. The study invitation was posted on the forum's website by the site administrator, and it is not known how many individuals viewed it. In total, 107 eligible participants gave informed consent, provided their email addresses so they could be contacted at subsequent waves, and completed the pretest, 75 individuals in 2014 and 32 in 2015.

## Data Collection

Data were collected in 2 separate years, roughly from April to July, and primarily online using Qualtrics; an exception was the contact information and pretest for the intervention group, where pen and paper versions were offered upon arrival at the retreat center, before the retreat began. Data were linked across three waves by a four-figure personal identifier created by each participant. The study was approved by the university institutional review board. All participants were provided with an informed consent page containing information on the study and its risks and benefits before proceeding to the pretest survey.

Pretest data were collected in the 2 weeks leading up to the retreat for the intervention group and within 4 weeks of the retreat for the comparison group. Posttest data were collected between 5 days and 4 weeks after the retreat. Follow-up data were collected between 5 and 9.5 weeks after the retreat. The pretest contained questions about demographics, the deceased child, mindfulness experience, help-seeking after the loss, the use of psychotropic medications, and four standardized scales. The posttest and follow-up surveys contained the four standardized scales as well as some open-ended questions about the retreat experience for the intervention group. Semistructured interviews were later conducted with a subset of retreat participants who were offered gift cards worth 20 US dollars. These results will be reported in a separate publication. After data collection ended each year, a participant's name was randomly drawn from a pool of all participants in both conditions who had completed all three surveys. This participant received a \$200 gift certificate (US dollars) to the agency's online store selling a variety of merchandise. No other incentives for participation were provided.

## Measures

**Trauma responses.** Trauma responses were measured by the *Impact of Event Scale-Revised* (IES-R), a 22-item self-report measure asking about trauma responses in reaction to a specified event (in this case the death of a child) over the past 7 days (Weiss & Marmar, 1997). Each item is rated on a 5-point Likert-type scale, where 0 = *not at all* and 4 = *extremely*. An overall mean score is computed, along with mean subscale

scores for intrusion, avoidance, and hyperarousal. Sample items include, “I found myself acting or feeling as though I was back at that time” (intrusion), “I was aware that I still had a lot of feelings about it, but I didn’t deal with them” (avoidance), and “I was jumpy and easily startled” (hyperarousal). While the IES-R does not have a clinical cutoff indicated by the developers, a mean score of 1.5 or higher is widely considered to indicate the presence of significant trauma symptoms (Creamer et al., 2003). The developers report good internal consistency for all scales across three studies ( $\alpha = .79-.92$ ) and high test–retest reliability ( $\alpha = .89-.94$ ; Weiss, 2004). In samples of bereaved parents, internal consistency for the overall scales and subscales ranged from .80 to .95 (Cacciatore et al., 2014; Thieleman et al., 2014).

**Depressive and anxious responses.** Depressive and anxious responses were measured with the *Hopkins Symptom Checklist-25* (HSCL-25), a 25-item self-report measure. The HSCL-25 has been widely used and is considered adequate for screening for psychiatric disorders (Veijola et al., 2003). In a sample of bereaved parents, the HSCL-25 yielded high internal consistency ( $\alpha = .96$ ; Cacciatore et al., 2014). Items refer to experiences over the past 7 days and include, “Feeling low in energy, slowed down” (depression) and “Nervousness or shakiness inside” (anxiety). Each item is scored on a 4-point Likert-type scale, where 1 = *not at all* and 4 = *extremely*. Mean overall and subscale scores are computed. Varying cutoff points have been used, ranging from 1.5 to 1.75 (Veijola et al., 2003). The higher value of 1.75 was used in this study, reflecting the high potential for anxious and depressive responses in parents following the death of a child.

**Mindfulness.** Mindfulness was measured with the *Five Facet Mindfulness Questionnaire* (FFMQ), a 39-item self-report measure with five scales: Observing (observe), Describing (describe), Acting with Awareness (act with awareness), Nonjudging of Inner Experience (nonjudge), and Nonreactivity to Inner Experience (nonreact; Baer et al., 2006). However, because the observe scale has been shown to perform differently based on a sample’s meditation experience (Baer et al., 2006), results involving this scale are not reported to avoid biasing results, leaving four scales. Each FFMQ item is rated on a 5-point Likert-type scale, where 1 = *never or rarely true* and 5 = *very often or always true*. Some items are reverse-scored. Sample items include, “I can easily put my beliefs, opinions, and expectations into words” (describe), “I am easily distracted” (act with awareness, reverse scored), “I tell myself I shouldn’t be feeling the way I’m feeling” (nonjudge, reverse-scored), and “I watch my feelings without getting lost in them” (nonreact). Each scale was summed separately.

The FFMQ showed adequate to good internal consistency in student samples ( $\alpha = .75-.91$ ), and the developers report good construct validity, with most facets (except observe) related as predicted with well-being, psychological symptoms, and meditation experience (Baer et al., 2006, 2008). Studies with both meditating and nonmeditating samples also showed adequate

to good internal consistency ( $\alpha = .72$  to  $.92$ ), excepting an  $\alpha$  of  $.67$  for nonreactivity in a nonmeditating student sample (Baer et al., 2008).

**Self-compassion.** Self-compassion contains three aspects: offering kindness and understanding to oneself, viewing personal experience in the larger context of being human, and holding painful emotions and thoughts in balanced awareness. Self-compassion facilitates emotional regulation, connectedness, and the willingness to make changes to improve one’s well-being (Neff, 2003).

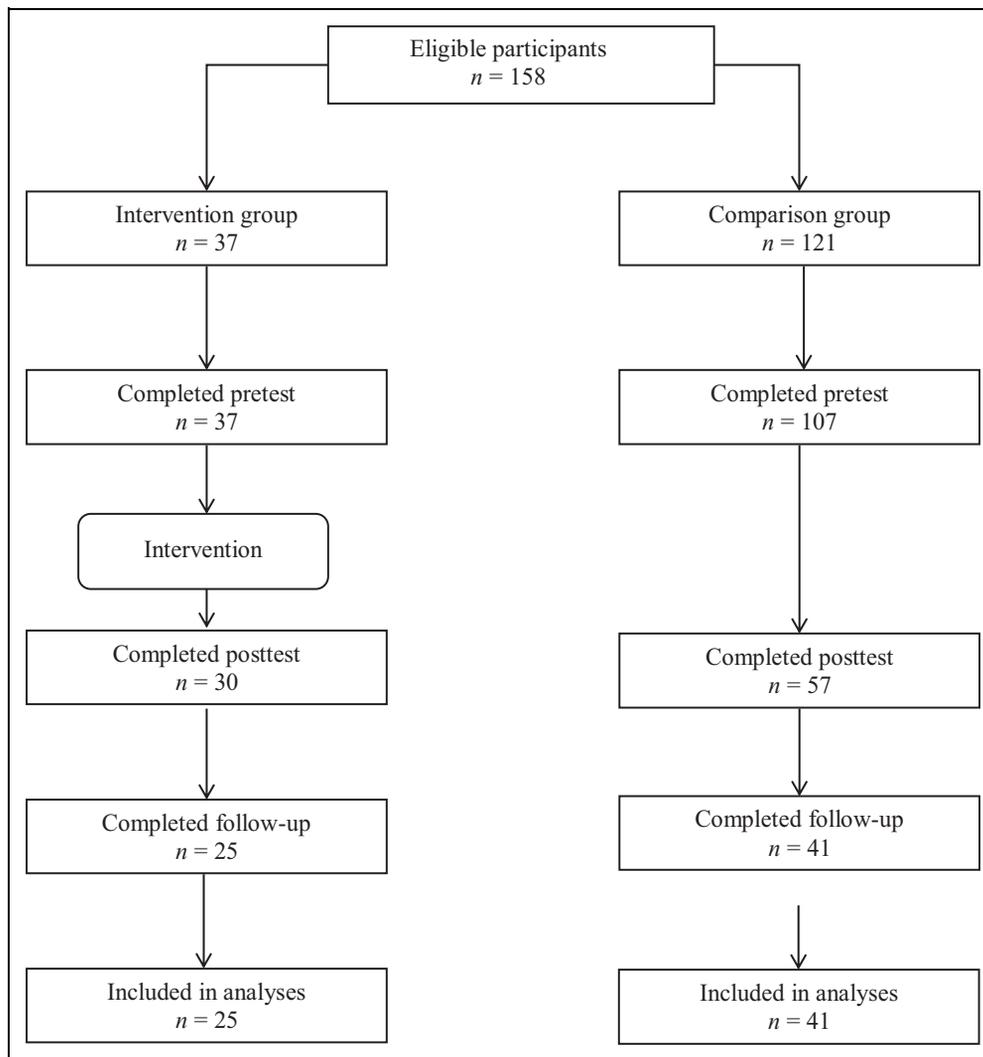
This study used the *Self-Compassion Scale–Short Form* (SCS-SF), a 12-item self-report measure (Raes et al., 2011) derived from the Self-Compassion Scale (SCS; Neff, 2003). Items are scored on a 5-point Likert-type scale, where 1 = *almost never* and 5 = *almost always*, with some items reverse scored. The original scale has six subscales, comprising pairs capturing opposing constructs: Self-Kindness and Self-Judgment, Common Humanity and Isolation, and Mindfulness and Overidentification (Raes et al., 2011). However, on the short form, the use of the subscales is not recommended due to low reliability (Raes et al., 2011); instead, an overall sum or mean score is used with higher scores indicating greater self-compassion. This study used a mean score to better facilitate comparisons with other studies. A sample item is, “I try to be understanding and patient towards those aspects of my personality I don’t like.” The SCS-SF has shown high internal consistency ( $\alpha = .86$ ; Raes et al., 2011). The original scale showed good test–retest reliability ( $\alpha = .93$ ), inversely correlated with a measure of self-criticism, and positively correlated with measures of social connectedness, providing evidence of construct validity; it also inversely correlated with depression and anxiety (Neff, 2003).

## Data Analysis

Statistical Package for the Social Sciences Versions 23, 24, and 25 were used for data analysis. All inferential tests used a significance level of  $.05$ . In cases when a participant had experienced the death of more than one child, the most recent death was considered the primary loss. Data analyses were limited to those who met study criteria and provided data on at least one of the four standardized measures at all three observations.

In the intervention group, data were provided on at least one measure at all three observations by 25 of the 37 participants who completed the pretest (67.57%). This calculation excludes individuals who attended both retreats and provided data both years. In these cases, only 2014 data were used. In the comparison group, 41 of the 107 individuals provided data on at least one measure at all three observations (38.32%). Figure 1 contains a chart showing the flow of participants in this study.

An error in the 2014 posttest and follow-up surveys involved the IES-R. This measure was not initially displayed on the intervention group posttest and the comparison group follow-up surveys. The errors were noticed while data collection was ongoing at each respective time; participants were notified of



**Figure 1.** Participant flowchart

the error and sent a link to complete the IES-R. At posttest, all intervention group participants who were contacted responded by completing the measure ( $n = 4$ ). However, not all participants responded by completing the measure for the comparison group at posttest and both groups at follow-up, leading to a loss of data at these times.

Participants in this study who completed at least one measure at all three waves were compared with those who did not to determine whether there were any significant differences between groups. This was done by condition and for the sample overall. Categorical variables could not be assessed in the intervention group due to small sample size, but all continuous variables were assessed. Independent samples  $t$  tests showed no significant difference for time since the loss, age, or any of the standardized instruments. However, the small number of noncompleters ( $n = 11$ – $12$ ) in the intervention group increased the risk of a Type II error. In the comparison group, no significant differences were noted on categorical variables; gender could not be tested due to low expected cell counts and the homogeneity of the sample on this variable. Independent

samples  $t$  tests showed no significant differences on any continuous variable in the comparison group, including the outcome measures. In the combined sample, there were no significant differences between completers and noncompleters on any continuous variable. Among categorical variables, the only significant difference was for education (college degree or not),  $\chi^2(1) = 4.33, p = .04$ ; the odds of having a college degree were 2.0 times higher in the completer group (95% confidence interval [CI] = [1.04, 3.78]). Gender could not be tested. Thus, there was only one significant pretest difference between those who provided full data and those who did not.

### Missing Data

The extent of missing items on the standardized scales was assessed in the combined sample. The IES-R scales were missing 1.5% of data at pretest (T1), between 12.1% and 13.6% at posttest (T2), and 7.6% at follow-up (T3); the HSCL-25 scales were missing 7.6% of data at T2; the FFMQ scales were missing 6.1%–7.6% of data at T2; and the SCS-SF was missing

1.5% of data at T1 and 3% at T2. Missing data on all items across waves were limited to less than 3% of total scale items. Little's Missing Completely at Random Test suggested that data were missing completely at random for all scales at all waves. The extent of item-level missing data was under 10% for all cases, so missing items were replaced with the mean item score for the case, as long as the participant had completed over 50% of items for the scale. This robust approach is appropriate for self-report items when all items relate to a single construct and can be assumed to be positively related; it has the advantage of not decreasing the sample size or statistical power (Fox-Wasylyshyn & El-Masri, 2005).

### Normality and Internal Consistency

The normality of distributions was assessed using histograms, skewness and kurtosis values, and the Kolmogorov–Smirnov test, where a  $p$  value of less than .05 may indicate a nonnormal distribution (Field, 2009). A log transformation was used for the time since the loss variable, as it was highly skewed and kurtotic. In other nonnormal distributions, outliers were identified with histograms and box plots. All outliers were within the range of possible values for their respective variables and did not appear to be the result of error. Transforming the data failed to normalize the distributions and eliminate outliers, so outliers were adjusted using the nearest value plus one method to retain the maximum amount of data possible (Field, 2009).

There were 17 outliers that were adjusted across all waves on all measures in both conditions. Outliers in otherwise normal distributions were not adjusted to preserve the original data. After adjusting, most distributions approached normality. However, significant Kolmogorov–Smirnov test values were obtained for the HSCL-25 Anxiety subscale ( $p = .04$ ) in the comparison group and the FFMQ Nonreact Scale ( $p = .02$ ) at T3 in the comparison group. These distributions had normal skewness and kurtosis values and no outliers. All analyses were run twice, once with outliers included but not adjusted and once with outliers adjusted, to ensure that adjusting outliers did not lead to greater support for the research hypothesis. Adjusting outliers did not change whether results were significant for any of the analyses.

Internal consistency was assessed by Cronbach's  $\alpha$  for each scale for each group separately as well as for the combined sample, at each wave. Scales generally showed strong internal consistency across waves ( $\alpha = .75$ – $.98$ ). However, the FFMQ Nonreact Scale at T1 in the comparison group had an  $\alpha$  of .69, similar to the value of .67 reported in another study (Baer et al., 2008). Complete internal consistency results are presented in Table 1.

## Quantitative Results

### Descriptive Statistics

The intervention group's mean age was 45.16 years ( $SD = 10.53$ ), with a mean time since the loss of 4.74 years ( $SD = 5.07$ ). The comparison group's mean age was 40.10 years

**Table 1.** Internal Consistency—Cronbach's  $\alpha$ .

Measure	Intervention, $\alpha$			Comparison, $\alpha$			Combined Sample, $\alpha$		
	T1	T2	T3	T1	T2	T3	T1	T2	T3
IES-R	.94	.94	.95	.94	.93	.95	.94	.94	.95
Intrusion	.89	.85	.86	.91	.89	.89	.90	.87	.88
Avoidance	.81	.85	.86	.79	.79	.82	.80	.79	.85
Hyperarousal	.90	.85	.93	.91	.93	.93	.90	.91	.93
HSCL-25	.95	.95	.93	.97	.96	.96	.96	.95	.96
Depression	.93	.93	.90	.95	.94	.94	.95	.94	.93
Anxiety	.93	.89	.85	.94	.91	.94	.93	.90	.92
FFMQ									
Describe	.96	.93	.89	.88	.93	.93	.92	.92	.91
Act aware	.89	.88	.86	.91	.86	.93	.90	.88	.91
Nonjudge	.96	.98	.94	.95	.96	.95	.96	.96	.95
Nonreact	.82	.83	.79	.69	.79	.88	.75	.80	.84
SCS-SF	.85	.89	.88	.92	.91	.92	.90	.90	.91

Note. IES-R = Impact of Event Scale–Revised; HSCL-25 = Hopkins Symptom Checklist-25; FFMQ = Five Facet Mindfulness Questionnaire; SCS-SF = Self-Compassion Scale–Short Form.

( $SD = 7.86$ ), with a mean time since the loss of 3.94 years ( $SD = 5.33$ ). Independent samples  $t$  tests showed the difference in age between groups was significant,  $t(40.31) = 2.08$ ,  $p = .04$ , 95% CI [0.14, 9.99], with a medium effect size (Cohen's  $d = .54$ ). The difference in time since the loss was not significant,  $t(64) = .60$ ,  $p = .55$ , 95% CI [−1.85, 3.45].

Both the intervention and comparison groups were predominantly female, White, partnered or married, middle-class, college-educated, and employed at least part-time, reflecting the overall body of retreat attendees. The most commonly reported age category for the deceased child was infant. The most commonly chosen category for cause of death in the intervention group was accident/suicide/homicide, while in the comparison group, it was illness/anomaly. Most participants in both conditions reported some mindfulness practice and had utilized counseling and support groups, while a smaller percentage had sought help from psychiatrists and spiritual guides. Less than half of participants in both conditions reported current use of counseling or support groups at pretest. Finally, most participants in both conditions had used psychotropic medications since the loss, while less than a third were using them at pretest.

$\chi^2$  analyses were used to compare the intervention and comparison groups on categorical variables at pretest; data were recoded into fewer categories to allow this. There was a significant difference for religion (Christian or non-Christian),  $\chi^2(1) = 6.07$ ,  $p = .01$ ; the odds of identifying as Christian were .28 times higher in the comparison group (95% CI [0.10, 0.78]). There was a significant difference for marital status (married/partnered or single),  $\chi^2(1) = 4.04$ ,  $p < .05$ ; the odds of being married or partnered were .30 times higher in the comparison group (95% CI [0.09, 1.00]). There was a significant difference for education (college degree or no degree),  $\chi^2(1) = 6.64$ ,  $p = .01$ ; the odds of having a college degree were 6.63 times higher

**Table 2.** Descriptive Statistics and  $\chi^2$  Analyses.

Variable	Intervention		Control		$\chi^2$	OR	95% CI
	%	n	%	n			
Female	88	22	97.6	40	—	—	—
White ethnicity	88	22	92.7	38	—	—	—
Religion Christian	40	10	70.7	29	6.07*	.28	[0.10, 0.78]
Partnered/married	64	16	85.4	35	4.04*	.30	[0.09, 1.00]
College educated	92	23	63.4	26	6.64*	6.63	[1.37, 32.16]
Employed full-/part-time	72	18	70.7	29	.01	1.06	[0.35, 3.20]
Middle income	72	18	70.7	29	.01	1.06	[0.35, 3.20]
Child age at death					2.21	—	—
Infant	50	12	56.1	23			
Toddler, child, teen	20.8	5	24.4	10			
Adult child	29.2	7	19.5	8			
Child cause of death					5.42	—	—
Unknown	28	7	22	9			
Illness/anomaly	28	7	56.1	23			
Accident/suicide/homicide	44	11	22	9			
Mindfulness experience					1.68	—	—
None	12	3	25	10			
Some	68	17	60	24			
A lot/a great deal	20	5	15	6			
Help seeking							
Counseling	100	25	55	22	15.56*	—	—
Physician	68	17	27.5	11	10.29*	5.60	[1.88, 16.66]
Psychiatrist	28	7	22.5	9	.25	.011	[0.04, 0.36]
Spiritual	36	9	25	10	.90	1.69	[0.57, 5.0]
Support group	88	22	65	26	4.21*	2.60	[0.69, 9.79]
Current counseling	37.5	9	42.5	17	.16	—	—
Current support group	40	10	22.5	9	2.28	2.30	[0.77, 6.84]
Psychotropic medication							
Lifetime	64	16	72.5	29	.52	.67	[0.23, 1.97]
Since loss	60	15	62.5	25	.04	.90	[0.32, 2.51]
At pretest	28	7	30	12	.03	.91	[0.30, 2.74]

Note. Data that could not be obtained are indicated by —.

\* $p < .05$ .

in the intervention group (95% CI [1.37, 32.16]). There was a significant difference for past use of counseling,  $\chi^2(1) = 15.56$ ,  $p < .001$ ; the odds ratio could not be computed due to 100% of the intervention group having sought counseling, compared to 55% in the comparison group. There was a significant difference for having sought help from a physician,  $\chi^2(1) = 10.29$ ,  $p = .001$ ; the odds of seeking help from a physician were 5.60 times higher in the intervention group (95% CI [1.88, 16.66]). Finally, there was a significant difference for past use of support group,  $\chi^2(1) = 4.21$ ,  $p = .04$ ; the odds of having used a support group were 2.60 times higher in the intervention group (95% CI [0.69, 9.79]).

There were no significant differences for employment (employed or not), income (middle or low/high), age of child at death (infant, toddler to teen, and adult), cause of death (unknown, illness/anomalies, or accident/suicide/homicide), extent of mindfulness practice (none, some, or a lot/a great deal), current use of counseling, current use of support group, having sought help from a psychiatrist, having sought spiritual guidance, lifetime psychotropic medication use, use of

medications since the loss, and use of medications at pretest. Gender (male or female) and ethnicity (White or nonWhite) could not be tested due to expected frequencies falling below five due to the homogeneity of the sample on these variables. Descriptive statistics and results of  $\chi^2$  analyses are provided in Table 2.

### Psychological Distress and Well-Being Outcomes

Both the intervention and comparison groups showed high levels of trauma, depressive, and anxious responses at T1, with mean scores for both groups falling above the clinical cutoff for all scales except IES-R avoidance. These scores are consistent with previous studies of bereaved parents using these measures (Cacciatore et al., 2014; Thieleman & Cacciatore, 2018). Scale means, standard deviations, and change over Time  $\times$  Condition are provided in Table 3.

Mixed-model repeated-measures analyses of variance (ANOVAs) were used to assess the effects of condition (intervention or comparison) and time (T1, T2, and T3) on outcome

**Table 3.** Scale Means, Standard Deviations, and Change Over Time.

Measure	Group	T1		T2		T3		T1–T2 Change	T1–T3 Change	T2–T3 Change	n
		M	SD	M	SD	M	SD				
IES-R	IG	1.66	0.86	1.17	0.62	1.16	0.63	–0.49*	–0.50*	0.01	24
	CG	1.63	0.87	1.67	0.81	1.54	0.88	0.04	–0.09	–0.13	32
Intrusion	IG	2.07	0.99	1.57	0.73	1.57	0.69	–0.50*	–0.05*	0	24
	CG	2.09	1.08	2.18	1.03	1.86	1.06	0.09	–0.23	–0.32*	32
Avoidance	IG	1.29	0.80	0.75	0.48	0.79	0.61	–0.54*	–0.50*	0.04	24
	CG	1.22	0.74	1.12	0.64	1.28	0.80	–0.10	0.06	0.16	31
Hyperarousal	IG	1.57	1.15	1.13	0.82	1.13	0.93	–0.44*	–0.44*	0	24
	CG	1.57	1.16	1.67	1.18	1.49	1.15	0.10	–0.08	–0.18	32
HSCL-25	IG	2.27	0.69	1.94	0.56	1.96	0.46	–0.33*	–0.31*	0.02	25
	CG	2.18	0.76	2.20	0.63	2.18	0.71	0.02	0	–0.02	36
Depression	IG	2.45	0.73	2.05	0.63	2.18	0.58	–0.40*	–0.27*	0.13	25
	CG	2.37	0.80	2.41	0.67	2.37	0.75	0.04	0	–0.04	36
Anxiety	IG	2.01	0.77	1.77	0.53	1.69	0.48	–0.24*	–0.32*	–0.08	25
	CG	1.91	0.77	1.89	0.65	1.87	0.68	–0.02	–.04	–0.02	36
<b>FFMQ</b>											
Describe	IG	25.21	7.17	27.71	5.74	25.45	5.95	2.50*	0.24	–2.26*	24
	CG	26.81	5.98	26.58	6.75	26.03	7.01	–0.23	–0.78	–0.55	27
Act aware	IG	22.42	6.78	25.08	6.10	23.38	5.92	2.66*	0.96	–1.70	24
	CG	22.15	7.29	21.43	6.19	20.81	6.84	–0.72	–1.34	–0.62	38
Nonjudge	IG	26.04	9.08	27.21	8.82	29.98	7.71	1.16	3.94*	2.77*	24
	CG	26.43	7.77	25.67	7.62	25.68	7.86	–0.76	–0.75	0.01	37
Nonreact	IG	19.02	3.94	20.00	3.97	19.58	2.90	0.98	0.56	–0.42	24
	CG	19.74	3.29	19.18	3.87	18.90	4.20	–0.56	–0.84	–0.28	38
SCS-SF	IG	2.65	0.65	2.83	0.73	2.77	0.70	0.18*	0.12	–0.06	24
	CG	2.72	0.87	2.77	0.81	2.64	0.79	0.05	–0.08	–0.13	39

Note. Negative number indicates score decreased, positive number indicates score increased. IES-R = Impact of Event Scale–Revised; IG = intervention group; CG = comparison group; HSCL-25 = Hopkins Symptom Checklist-25; FFMQ = Five Facet Mindfulness Questionnaire; SCS-SF = Self-Compassion Scale–Short Form. \* $p < .05$ .

measures (trauma, depression, anxiety, mindfulness, and self-compassion). Effect size was measured by  $\eta_p^2$ , where .01 is considered small, .06 is considered medium, and .15 is considered large (Cohen, 1988). The assumption of equality of variances between groups was assessed using nonparametric Levene tests, which are recommended when data are nonnormally distributed or sample sizes are unequal (Nordstokke et al., 2011). Although the distributions approached normal, sample sizes were unequal. Results indicated no violations of the assumption of equality of variance. The ANOVA results showed no significant differences between the intervention and comparison groups on any of the standardized measures at pretest.

**Trauma responses.** On IES-R, there was a significant effect for time,  $F(1.80, 97.12) = 8.55, p = .001, \eta_p^2 = .14, 90\% \text{ CI } [0.04, 0.24]$ , and the interaction of Time  $\times$  Condition,  $F(1.80, 97.12) = 7.34, p = .002, \eta_p^2 = .12, 90\% \text{ CI } [0.03, 0.22]$ , using the Greenhouse–Geisser correction for a violation of sphericity ( $p = .04$ ). There were significant decreases in trauma responses from T1 to T2 ( $p < .001$ ) and T1 to T3 ( $p < .001$ ) for the intervention group. The intervention group had a significantly lower mean score than the comparison group at T2,  $F(1, 54) = 6.45, p < .05, \eta_p^2 = .11, 90\% \text{ CI } [0.01, 0.24]$ .

On the IES-R Intrusion subscale, there was a significant effect for time,  $F(1.71, 92.38) = 7.81, p = .01, \eta_p^2 = .13, 90\% \text{ CI } [0.03, 0.23]$ , and the interaction of Time  $\times$  Condition,  $F(1.72, 92.38) = 5.17, p = .01, \eta_p^2 = .09, 90\% \text{ CI } [0.12, 0.18]$ , using the Greenhouse–Geisser correction for a violation of sphericity ( $p < .01$ ). There were significant decreases in intrusion from T1 to T2 ( $p < .01$ ) and T1 to T3 ( $p = .001$ ) for the intervention group and a significant decrease for the comparison group from T2 to T3 ( $p = .001$ ). The intervention group had a significantly lower mean score at T2,  $F(1, 54) = 6.09, p = .02, \eta_p^2 = .10, 90\% \text{ CI } [0.01, 0.24]$ .

On the IES-R Avoidance subscale, there was a significant effect for time,  $F(2, 106) = 7.99, p = .001, \eta_p^2 = .13, 90\% \text{ CI } [0.04, 0.22]$ , and the interaction of Time  $\times$  Condition,  $F(2, 106) = 6.60, p < .01, \eta_p^2 = .11, 90\% \text{ CI } [0.03, 0.20]$ . There were significant decreases in avoidance from T1 to T2 ( $p < .001$ ) and from T1 to T3 ( $p < .001$ ) for the intervention group. The intervention group had a significantly lower mean score at T2,  $F(1, 53) = 5.61, p = .02, \eta_p^2 = .10, 90\% \text{ CI } [0.01, 0.23]$ , and T3,  $F(1, 53) = 6.36, p = .02, \eta_p^2 = .11, 90\% \text{ CI } [0.01, 0.24]$ .

On the IES-R Hyperarousal subscale, there was a significant effect for time,  $F(2, 108) = 3.84, p = .02, \eta_p^2 = .07, 90\% \text{ CI } [0.01, 0.14]$ , and the interaction of Time  $\times$  Condition,  $F(2, 108) = 4.23, p = .02, \eta_p^2 = .07, 90\% \text{ CI } [0.01, 0.15]$ . There were

significant decreases in hyperarousal from T1 to T2 ( $p < .01$ ) and from T1 to T3 ( $p = .01$ ) for the intervention group. Although the difference only approached significance ( $p = .06$ ), the intervention group's mean score was .54 points lower at T2; the intervention group mean score was also nonsignificantly lower at T3.

**Depressive and anxious responses.** On the HSCL-25, there was a significant effect for time,  $F(1.65, 97.29) = 5.34, p < .01, \eta_p^2 = .08, 90\% \text{ CI } [0.01, 0.17]$ , and the interaction of Time  $\times$  Condition,  $F(1.65, 97.29) = 6.06, p < .01, \eta_p^2 = .09, 90\% \text{ CI } [0.02, 0.19]$ , using the Greenhouse–Geisser correction for a violation of sphericity ( $p = .001$ ). There were significant decreases from T1 to T2 ( $p < .001$ ) and from T1 to T3 ( $p < .01$ ) for the intervention group. There were no significant differences at any time between groups, although the intervention group mean score was slightly lower at T2 and T3.

On the HSCL-25 Depression subscale, there was a significant effect for time,  $F(1.74, 102.43) = 4.57, p = .02, \eta_p^2 = .07, 90\% \text{ CI } [0.01, 0.16]$ , and the interaction of Time  $\times$  Condition,  $F(1.73, 102.43) = 6.54, p < .01, \eta_p^2 = .10, 90\% \text{ CI } [0.02, 0.19]$ , using the Greenhouse–Geisser correction for a violation of sphericity ( $p < .01$ ). There were significant decreases from T1 to T2 ( $p < .001$ ) and from T1 to T3 ( $p = .02$ ) for the intervention group. The intervention group had a significantly lower mean score at T2,  $F(1, 59) = 4.42, p = .04, \eta_p^2 = .07, 90\% \text{ CI } [0.00, 0.19]$ . The intervention group mean score was nonsignificantly lower at T3.

On the HSCL-25 Anxiety subscale, there was a significant effect for time,  $F(1.68, 99.04) = 4.38, p = .02, \eta_p^2 = .07, 90\% \text{ CI } [0.01, 0.15]$ , using the Greenhouse–Geisser correction for a violation of sphericity ( $p < .01$ ). There was no significant effect for the interaction of Time  $\times$  Condition,  $F(1.68, 99.04) = 2.89, p = .07, \eta_p^2 = .05, 90\% \text{ CI } [0.00, 0.12]$ . There were significant decreases from T1 to T2 ( $p < .01$ ) and from T1 to T3 ( $p < .01$ ) in the intervention group. There were no significant differences at any time between groups, although the intervention group mean score was slightly lower at T2 and T3.

**Mindfulness.** On the FFMQ Describe Scale, there was a significant effect for time,  $F(2, 118) = 3.70, p = .03, \eta_p^2 = .06, 90\% \text{ CI } [0.00, 0.13]$ , and the interaction of Time  $\times$  Condition,  $F(2, 118) = 3.14, p < .05, \eta_p^2 = .05, 90\% \text{ CI } [0.00, 0.12]$ . There were significant increases in the describe facet from T1 to T2 ( $p < .01$ ) and then a significant decrease from T2 to T3 ( $p < .01$ ) for the intervention group. There were no significant differences between groups at any observation, although the intervention group mean score was higher at T2 and slightly lower at T3.

On the FFMQ Act with Awareness Scale, there was a significant effect for the interaction of Time  $\times$  Condition,  $F(2, 120) = 3.73, p = .03, \eta_p^2 = .06, 90\% \text{ CI } [0.00, 0.13]$ , with no significant effect for time,  $F(2, 120) = 1.93, p = .15, \eta_p^2 = .03, 90\% \text{ CI } [0.00, 0.09]$ . There was a significant increase in the act with awareness facet from T1 and T2 ( $p < .01$ ) for the intervention group. The intervention group had a significantly higher mean score at T2,  $F(1, 60) = 5.20, p = .03, \eta_p^2 = .08,$

90% CI [0.01, 0.20]. The intervention group mean score was nonsignificantly higher at T3.

On the FFMQ Nonjudge Scale, there was a significant effect for the interaction of Time  $\times$  Condition,  $F(2, 118) = 4.86, p < .01, \eta_p^2 = .08, 90\% \text{ CI } [0.01, 0.15]$ , with no significant effect for time,  $F(2, 118) = 2.62, p = .08, \eta_p^2 = .04, 90\% \text{ CI } [0.00, 0.11]$ . There were significant increases in the nonjudge facet from T1 to T3 ( $p < .01$ ) and T2 to T3 ( $p = .02$ ) for the intervention group. The intervention group had a significantly higher mean score at T3,  $F(1, 59) = 4.42, p = .04, \eta_p^2 = .07, 90\% \text{ CI } [0.00, 0.19]$ . The intervention group mean score was nonsignificantly higher at T2.

On the FFMQ Nonreact Scale, there was no significant effect for the interaction of Time  $\times$  Condition,  $F(2, 120) = 1.68, p = .19, \eta_p^2 = .03, 90\% \text{ CI } [0.00, 0.08]$ , or time,  $F(2, 120) = 0.30, p = .75, \eta_p^2 < .01, 90\% \text{ CI } [0.00, 0.03]$ . There were no significant changes in this facet in either group or significant differences between groups at any time, although the intervention group mean score was higher at T2 and T3.

**Self-compassion.** On the SCS-SF, there was no significant effect for the interaction of Time  $\times$  Condition,  $F(1.63, 99.64) = 1.60, p = .21, \eta_p^2 = .03, 90\% \text{ CI } [0.00, 0.09]$ , or time,  $F(1.63, 99.64) = 2.03, p = .15, \eta_p^2 = .03, 90\% \text{ CI } [0.00, 0.10]$ , using the Greenhouse–Geisser correction for a violation of sphericity ( $p < .001$ ). There was a significant increase in self-compassion from T1 to T2 ( $p = .03$ ) for the intervention group, and in the comparison group, the decrease from T2 to T3 approached significance ( $p = .052$ ). There were no significant differences between groups at any time although the intervention group mean score was slightly higher at T2 and T3.

## Discussion and Applications to Practice

This study evaluated the effectiveness of a 4-day, mindfulness-based retreat on psychological distress and well-being in bereaved parents. At pretest, both the intervention and comparison groups' mean scores were above the clinical cutoff on three of the four IES-R trauma scales and on all of the HSCL-25 scales measuring depression and anxiety. This is consistent with previous reports of enduring distress in bereaved parents using these same measures (Cacciatore et al., 2014; Thieleman et al., 2014) and supports the need for interventions tailored to this unique group of grievers.

Results from mixed-model repeated-measures ANOVAs showed significant Time  $\times$  Condition interactions with medium effect sizes favoring the intervention group on the IES-R and its Intrusion, Avoidance, and Hyperarousal subscales and on the HSCL-25 and its Depression subscale. These findings suggest the retreat had a considerable effect in reducing psychological distress. Significant Time  $\times$  Condition interactions with small effect sizes benefiting the intervention group were found on the FFMQ describe, Act with Awareness, and Nonjudge scales, suggesting a small effect on these aspects of well-being. Group means between conditions were significantly different for three of the four IES-R trauma scales, the

HSCL-25 and its Depression subscale, and the FFMQ Describe and Act with Awareness Scales at posttest, which was 5 days to 4 weeks after the retreat, showing its immediate effect. However, at follow-up 5–9.5 weeks after the retreat, the only significant differences between groups were on the IES-R Avoidance subscale and the FFMQ Nonjudge Scale. On the Mindfulness and Self-Compassion Scales, the small effect sizes and lack of sustained improvement on all but one of these scales suggest the retreat did not have a lasting effect on most aspects of well-being.

Within groups, the intervention group showed significant decreases in trauma, depressive, and anxious responses that were maintained at follow-up as well as a significant increase in the nonjudge mindfulness facet at follow-up. Additionally, even when not statistically significant, the intervention group's mean scores at posttest and follow-up were lower than those of the comparison group on all measures of psychological distress and higher on self-compassion and all but one mindfulness scale. Thus, the retreat appeared to benefit participants, with no significant increase in distress observed for trauma, depressive, or anxious responses.

Both the intervention and comparison group showed high levels of trauma responses at pretest, with scores on most scales above the clinical cutoff of 1.5. The retreat appeared to have a substantial effect on trauma responses; the intervention group's mean scores dropped to below the clinical cutoff on the full-scale IES-R and its Hyperarousal subscale at posttest and remained below the cutoff at follow-up. While this group's pretest mean score on the Avoidance subscale was not above the clinical cutoff, a further significant reduction was noted. The highest mean pretest IES-R score was for intrusion; while this subscale significantly declined in the intervention group, it remained above the clinical cutoff. In the comparison group, the mean intrusion score initially increased at posttest, then dropped significantly at follow-up, but remained above the clinical cutoff. The reason for this change cannot be discerned from these data. In general, the comparison group showed few positive changes and scores remained above the cutoff for most measures at posttest and follow-up.

Both groups also appeared highly distressed on the HSCL-25, measuring depressive and anxious responses, with pretest scores above the clinical cutoff. The retreat seemed to have a less pronounced effect in this area. Group means only differed significantly on the Depression subscale at posttest. While the intervention group showed significant reductions on the HSCL-25 and its two subscales, mean scores remained above the clinical cutoff for the full scale and the Depression subscale at follow-up, suggesting continuing distress despite these improvements. The symptoms of grief and depression are often indistinguishable, with both frequently including sadness, weight and sleep changes, loss of energy, and impaired concentration or indecisiveness; however, the consideration of the context in which these symptoms occurs is crucial, as these experiences are a normative response to the death of a loved one (Thielemann & Cacciato, 2013). In this case, the high scores on the depression scale may reflect intense, yet

normative, grief after the death of a child. Likewise, continued anxiety, or fear, may be a normative aspect of grief in bereaved parents. Prior research has demonstrated the persistence of depressive and anxious responses in bereaved parents for years (Cacciato et al., 2014; McCarthy et al., 2010; Thielemann & Cacciato, 2018). For example, Kreicbergs et al. (2004) found elevated rates of depression and anxiety 4–6 years after a child's death in bereaved parents compared to matched controls; they found no differences 7–9 years later. With a mean time since the loss of 4.74 years, this study's intervention group was within the window when such symptoms might be expected. It is possible that depressive and anxious symptoms may not be as amenable to intervention as trauma symptoms within this time frame in this population.

Pretest mean scores on the FFMQ scales in both groups were similar to those reported in other samples (Baer et al., 2008). The retreat appeared to effect only specific aspects of mindfulness. Significant group differences favoring the intervention group were found for act with awareness at posttest and nonjudge at follow-up. The intervention group initially showed significant improvement on the Describe and Act with Awareness Scales, but these gains were not maintained at follow-up. No significant changes were noted for the nonreact facet. Prior research has concluded that some facets likely increase only after regular mindfulness practice is developed (Baer et al., 2012). The time frame of the retreat did not provide this kind of sustained support for practice, which might explain the few changes observed on the FFMQ.

However, the delayed increase on the Nonjudge Scale is notable. The initial intervention group increase on this scale was not significant; however, there was a significant increase at follow-up. The retreat may have facilitated changes that decreased participants' self-judgment over time, but this change requires further study. Roberts and Montgomery (2016a, 2016b) also reported delayed increases in mindfulness, with significant increases on four of the five facets occurring between 6-week and 12-month follow-up. Facets of mindfulness may have continued to increase in the current sample, although this likely depends on the extent to which participants continued to practice mindfulness and cannot be determined from these data. The psychometric properties of the FFMQ Observe Scale led to its exclusion in this study. Because the observe facet, along with nonjudge, measures mindfulness most directly, the effect of the intervention on mindfulness cannot be fully assessed.

Both groups had pretest self-compassion scores similar to those reported in a sample participating in a mindfulness-based intervention (Neff & Germer, 2013). The intervention group's mean score increased significantly at posttest but was not significantly different from the comparison group; additionally, the improvement was not maintained at follow-up. The retreat provided little explicit instruction regarding self-compassion practice; as with mindfulness, more sustained self-compassion practice is likely needed to bring about enduring increases in this area. It is also possible that characteristics of bereaved parents, such as feelings of guilt over a child's death,

make the cultivation of self-compassion difficult, though this requires further study. Additionally, this study used the short form of the SCS and thus had to rely on a total score rather than subscale scores that might have better captured changes in the three components of self-compassion over time.

This study replicated previous findings from an uncontrolled study of decreases in trauma, depressive, and anxious responses among traumatically bereaved individuals receiving mindfulness-based counseling (Thieleman et al., 2014). In this previous study, the IES-R, the HSCL-25, and their subscales all showed significant decreases after an average of 14.64 hr of counseling. The current study found similar decreases on these measures from pretest to posttest for the intervention group, suggesting that mindfulness-based approaches may be useful for bereaved populations. The current study also included a follow-up observation that demonstrated many improvements in the intervention group were maintained 5–9.5 weeks after the intervention. Ideally, a 6-month or 1-year follow-up observation would have been obtained. Nevertheless, this short follow-up period provides information about the trajectory of change over time on the variables of interest. In addition, the current study attempted to measure mindfulness itself, along with self-compassion, another aspect of well-being. The current study also has the advantage of utilizing a comparison group to better assess the intervention's effect. This revealed that, despite improvements in the intervention group, this group's mean scores were not always significantly different from the comparison group. Nevertheless, the improvements likely have clinical significance for the individuals who experience them.

These findings provide additional evidence of the efficacy of mindfulness-based approaches for trauma. Traumatized individuals often engage in avoidance of distressing emotions, leading to a restricted range of internal experiences. Efforts to suppress distressing feelings, thoughts, and expressions may have the opposite effect of increasing their frequency, creating a cycle of intrusive thoughts and efforts to avoid them (Follette et al., 2006), which may increase the risk of clinical depression and anxiety and elongate trauma symptoms (Moore et al., 2008). Mindfulness practice entails noticing one's experiences with nonjudgmental acceptance. It can increase psychological flexibility and the ability to remain present with suffering, thus decreasing avoidance and the distress related to intrusive thoughts (Follette et al., 2006). One of the enduring group differences at follow-up in this study was for avoidance, with the intervention group having a significantly lower score. The retreat may have been particularly effective in facilitating a greater willingness to turn toward painful experiences related to the death of a child among participants. Mindfulness-based interventions may be helpful in assisting grieving clients to turn toward their grief openly, without judging it, decreasing avoidance and self-critical thoughts. While not eliminating grief, such approaches can help make the inescapable pain of profound loss more bearable, ideally in the context of good social support. Social workers may want to consider integrating such

approaches when working with highly distressed bereaved clients.

While there is reason to believe that mindfulness can decrease trauma responses, it is possible that some other factor caused the decreases in trauma. For instance, one could argue that social support alone may have brought about beneficial changes. However, a study of a peer support weekend for bereaved parents found no significant reductions in trauma using the IES-R (Aho et al., 2017). The intervention group's increase on the FFMQ nonjudge facet in the current study indicates that the retreat was effective in increasing this particular mindfulness facet.

The lack of significant change in other FFMQ facets could also be influenced by this measure's limitations. Mindfulness is not always found to increase significantly, even in the best studied mindfulness interventions that report other significant benefits (Goldberg et al., 2016). This may be because the FFMQ, and many other mindfulness scales, measures the effects of mindfulness rather than mindfulness itself (Coffey et al., 2010). Among FFMQ facets, observe and nonjudge most closely correspond to the two key components of mindfulness: attention and acceptance (Coffey et al., 2010). It is regrettable that the properties of the FFMQ Observe Scale rendered it unfit for use in the current study, as the Observe and Nonjudge scales together might provide the best assessment of the retreat's effect on mindfulness.

This study has a number of strengths. It is the first study of a mindfulness-based intervention for grief to utilize a comparison group. This study adds to the findings of three previous studies reporting decreases in grief-related distress and increases in psychological well-being after mindfulness-based interventions (Neimeyer & Young-Eisendrath, 2015; Roberts & Montgomery, 2016a, 2016b; Thieleman et al., 2014). It also included a follow-up observation to assess the effect of the intervention beyond the posttest. However, the follow-up was relatively close to the end of the intervention, just 5–9.5 weeks later, and a longer term follow-up would be ideal to assess whether the improvements noted in the intervention group lasted beyond this study's limited follow-up observation.

This study employed a quasi-experimental design and the use of a comparison group improved the internal validity of the findings. However, this study was not randomized and, while the intervention and comparison groups were similar on most variables at pretest, pretreatment equivalency cannot be assumed. This study also did not use a representative sample, and participants were predominantly White, female, and middle class. While this sample is typical of those generally obtained in grief research, the results cannot be generalized beyond this sample. There are likely differences between those who enroll in a mindfulness-based intervention and those who do not, and some significant differences were noted between the two conditions. For instance, the comparison group participants were more likely to identify as Christian and the intervention group participants were more likely to have a college degree. The acceptability of mindfulness-based approaches

may differ based on education level, between- and within-religious groups, as well as according to other factors.

Despite few between-group differences at follow-up, the intervention group showed significant reductions in trauma, depressive, and anxious responses after the retreat, with improvements maintained at follow-up. These changes likely have clinical significance in the lives of bereaved parents in terms of the intensity of grief-related distress. Findings were more mixed regarding mindfulness and self-compassion. The intervention group showed transient increases in the describe and act with awareness mindfulness facets, as well as self-compassion, and a delayed but significant increase in the non-judge facet, which may improve acceptance of grief-related emotions.

Overall, this study reported encouraging findings on the use of the retreat, a holistic intervention designed to improve well-being and reduce distress among parents after the death of a child. Key findings are that the retreat decreased trauma, depressive, and anxious responses and increased nonjudging, a key facet of mindfulness. The retreat may be an effective intervention for alleviating high levels of grief-related distress and facilitating adaptive grieving in bereaved parents. This, and other mindfulness-based approaches, may be helpful to grieving clients encountered in social work practice and warrant further study.

### Authors' Note

Data can be shared upon request from the corresponding author.

### Declaration of Conflicting Interests

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

### Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

### ORCID iD

Kara Thieleman  <https://orcid.org/0000-0003-2893-9792>

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