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Traumatic Bereavement and Mindfulness: A Preliminary Study of Mental Health Outcomes Using the ATTEND Model

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Abstract This article presents a quasi-experimental study of a mindfulness-based intervention for traumatically bereaved individuals using a single group with pre-test and post-test design. The intervention consists of the ATTEND model, which is comprised of the following elements practiced by the clinician: attunement, trust, therapeutic touch, egalitarianism, nuance, and death education. The study is based on the charts of 42 clients seeking grief counseling at a mental health agency viewed retrospectively. Participants' intake scores on the Impact of Event Scale-Revised (IES-R), which measures trauma symptoms, and 25-item Hopkins Symptom Checklist (HSCL-25), which measures depressive and anxious symptoms, were compared to their scores after an average of 14.64 hours of counseling. Paired samples *t* tests showed a statistically significant decline in trauma symptoms on the IES-R, and in anxious and depressive symptoms on the HSCL-25. These results provide preliminary support for the use of this mindfulness-based approach for difficulties associated with traumatic bereavement, though more extensive research is needed to determine the effectiveness of this approach.

Keywords Mindfulness · Grief · Bereavement · Trauma · Intervention · Mental health

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Introduction

Bereavement is a normal, though painful, human experience that understandably causes distress. There is no well-established timeline for the resolution of grief and there is great variation in its expression (Currier et al. 2008). Many individuals cope with the emotional pain of bereavement without the aid of any formal intervention. However, individuals who have experienced traumatic bereavement, such as deaths that are violent, sudden, or due to human actions (Green 2000), may face unique challenges. In addition to circumstances of the death, the relationship to the deceased may also determine whether bereavement is experienced as traumatic (Green 2000), and some posit that the death of a baby or child is always traumatic in nature (Cacciatore 2007; Rando 1985). Thus, individual, circumstantial, and relational factors can all influence whether bereavement is experienced as traumatic. Those who do experience traumatic bereavement may be at increased risk for continuing difficulties such as depression and post-traumatic stress disorder (PTSD) (Kaltman and Bonanno 2003).

The death of an infant or child in the family is widely believed to constitute an especially traumatic form of bereavement that can result in enduring symptoms for parents. This may be due, in part, to the strong bond between parents and their children, the duty and desire parents feel to protect their children, and the perception that the deaths of children are outside the natural order of events (Rando 1985). Bereaved parents have been found to be at increased risk for a variety of problems, including depression, anxiety, PTSD (Badenhorst et al. 2006; Boyle et al. 1996), complicated grief, health problems (Dyregrov et al. 2003), and marital problems (Rogers et al. 2008).

Psychosocial Interventions for Bereavement-Related Difficulties

A number of psychosocial bereavement interventions have been used with varied results. Neimeyer and Currier (2009) conducted a meta-analysis of 61 controlled bereavement interventions that included psychotherapy and various forms of counseling, writing therapy, support groups, and crisis intervention. They found a small positive effect size immediately following the intervention, but results were not significant at follow-up (an average of 8 months post-intervention). Specifically, universal interventions (given to all grievers regardless of level of distress or help-seeking) were not more effective than no intervention at any point, while selective interventions (provided to grievers thought to be at risk, such as those bereaved by suicide, but without considering level of distress) had a slight benefit at post-treatment but not at follow-up. However, indicated interventions (provided to those who experience distress and actively seek help) conducted with individuals "struggling with intense symptomatology over a protracted period" were found to be effective (Neimeyer and Currier 2009, p. 354), and individuals experiencing such symptoms are more likely to benefit from treatment. Though a range of interventions may be effective for bereavement-related difficulties, it is important that such interventions be targeted to individuals who are most likely to benefit from them, that is, individuals who are highly distressed and actively seek help.

Regarding specific bereavement-related interventions, there is evidence from a randomized controlled trial to support the effectiveness of complicated grief treatment (Shear et al. 2005), which uses elements of cognitive behavioral therapy and interpersonal therapy to focus on grief and trauma-specific distress. This approach is based on Stroebe and Schut's (1999) dual process model, in which both loss-oriented (e.g., making space for grief) and restoration-oriented (e.g., focusing on current relationships) coping is addressed. There is also support for cognitive behavioral therapy emphasizing cognitive restructuring and exposure therapy (Boelen et al. 2007) as well as internet-based cognitive behavioral therapy focusing on grief (Wagner et al. 2006). Such treatments appear to be efficacious in managing intense and prolonged bereavement-related symptomatology. Though the majority of studies do not focus on bereaved parents, there is research suggesting that support groups may be beneficial for some populations, such as women who experience trauma symptoms after the death of a baby (Cacciatore 2007). Other studies have found no statistically significant benefit for group interventions for bereaved parents, such as a structured professionally-led group for parents who experienced the violent death of a teen or young adult child (Murphy et al. 1998). However, highly distressed women in this study showed a statistically significant improvement in PTSD scores compared to a control group, again suggesting that individuals experiencing greater levels of distress are more likely to benefit from treatment (Neimeyer and Currier 2009).

Overall, psychotherapy for bereavement does not produce as good of outcomes as psychotherapy for other problems. Clinician discomfort and lack of training in the field of traumatic death, especially the deaths of children (Cacciatore and Flint 2012), may also be a contributing factor to psychotherapy's limited efficacy. It should be noted that social workers in a variety of practice areas, not just those in bereavement, may encounter traumatically bereaved clients, highlighting the need for sensitive, competent care in this area.

Mindfulness-Based Approaches

Recently there has been greater interest in evaluating integrative approaches such as mindfulness-based models for grief (Cacciatore 2011; Cacciatore and Flint 2012). Mindfulness has been defined as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn 2003, p. 145). It is "an inherent human capacity" (Kabat-Zinn 2003, p. 146) that allows individuals to approach and accept some degree of suffering as part of the human condition and has been incorporated into a variety of treatment approaches including mindfulness-based cognitive therapy, mindfulness-based stress reduction, acceptance and commitment therapy, and dialectical behavioral therapy (Baer and Krietemeyer 2006). Mindfulness-based approaches have been shown to be effective with a range of problems, including depression (Kuyken et al. 2008; Ma and Teasdale 2004), anxiety (Piet et al. 2010), and trauma symptoms (Gordon et al. 2008), which are often of concern to bereaved parents. However, mindfulness-based approaches for these issues have not been tested in this specific population.

Methods

Design

This study utilizes a single group with pre-test and post-test quasi-experimental design and is based on retrospective data belonging to a community mental health agency. Data were collected by the agency and obtained anonymously following an institutional review board approval process that included the agency's board of directors and clinic

director. This agency serves those who have experienced traumatic bereavement, and the majority of clients are bereaved parents. Clients seen at the agency are primarily low-income, and the majority are seen for a reduced fee or pro-bono.

Intervention

Clinicians in this agency are taught and encouraged to practice meditation, various styles of yoga (including hatha, kundalini, and vinyasa flow), and mindful movement, speech, and actions. Some clinicians also chose to practice contemplative prayer. They are part of a small but close network of providers who, together participate in continuing education, retreats, and supervision all based around mindfulness, self-care/compassion, and interpersonal connection to one another. These strategies provide a foundation upon which the ATTEND model is built, and the focus of the model is on self (clinician), other (client), and the relationship.

Counseling was provided by masters or doctorate level clinicians who underwent 40 h of traumatic death education training as well as continuing education using the ATTEND model, a mindfulness-based intervention. This intervention is comprised of the following six elements: attunement, trust, therapeutic touch, egalitarianism, nuance, and death education (Cacciatore 2011). Each aspect includes core skills practiced by the therapist and used with the client. Rather than using a rigid protocol, this model encourages individualized care based on each client's experience and is consistent with social work's emphasis on meeting each client where he or she is, rather than applying a one-size-fits-all approach.

Attunement includes clinician mindfulness, both in and out of the therapeutic relationship. There is a focus on building trust through acceptance of the client's affective states, deep listening, compassionate interpersonal communication, and validation of the client's experiences of loss. Clinicians are encouraged to be mindful of the benefits and appropriateness of therapeutic touch, such as gently touching the top of a client's hand. However, touch should also be enacted only in the right circumstances. For example, until trust is established, it may not be appropriate to touch a client, especially one from a different cultural tradition or where a client's reaction to touch cannot be anticipated. In addition, some clients with a history of sexual trauma may not be open to therapeutic touch, if ever, until they feel quite safe with the clinician. Being fully present and mindful will better ensure that touch is used to cultivate a healing, rather than threatening, environment.

Clinicians trained in this model also strive to create a relationship that is as egalitarian as possible, given the inevitable power differential in the clinician-client relationship. This is done by providing psycho education when needed to empower the client, demonstrating humility in the face of unanswerable questions, and regarding the client as the expert in terms of his or her experience and needs. Nuanced care requires the clinician to be mindful of and attentive to the individual, cultural, and circumstantial differences of every client. For example, clinicians may attend a remembrance ceremony with clients or may visit the cemetery with the grieving family, taking the healing relationship outside the four walls of the traditional therapeutic setting. Clinicians also proactively use psychoeducation (death/grief focused), during sessions when appropriate. This may mean validating traumatic grief experiences or providing reading materials or relevant research articles that may interest the client.

Like other mindfulness-based approaches, goals of the ATTEND model are to increase emotional tolerance by helping clients respond with greater awareness rather than react habitually to events and emotions (Baer and Krietemeyer 2006). Clinicians model non-judgmental acceptance and mindfulness skills that help create a safe and accepting environment for clients. Mindfulness practice by clinicians may lead to greater empathy, compassion, and attunement, all of which can help strengthen rapport in the therapeutic relationship (Turner 2009). For example, one randomized controlled trial showed that clinician meditation practice alone improved outcomes for clients (Grepmair et al. 2007). Another study showed low levels of burnout and compassion fatigue and high levels of compassion satisfaction amongst clinicians and volunteers trained in the ATTEND model (Thieleman and Cacciatore 2014).

Mindfulness practices are implemented throughout therapy using the ATTEND model, such as teaching mind–body awareness and meditation (when appropriate) in session, teaching clients to notice thoughts, sensations, and emotions without judgment, awareness journaling, and various body, social, cognitive, and emotion focused homework assignments. One such example is a 15 min exercise of noticing the breath, including the inhale, exhale, and the pause between them, as well as the associated bodily sensations. Another exercise involves taking a walk and looking for items in nature that can be used as metaphors for the client's life. For example, a cactus next to a flower may be a metaphor for how pain and beauty can coexist, or the shadow of a tree may be a metaphor for how others can provide comfort. Another exercise invites the client to do something kind for someone else every day for a week and notice the feelings before, during, and after each act. These acts could be as simple as holding a door

for someone, paying a parking meter, or leaving a toy where a child will find it.

Instruments

This agency employs two self-report instruments commonly used in mental health settings, the Impact of Event Scale-Revised (IES-R) and the 25-item Hopkins Symptom Checklist (HSCL-25). Though these instruments do not measure grief directly, they capture many distressing symptoms commonly reported by the traumatically bereaved, namely depressive, anxious, and traumatic stress symptoms. Though many of these symptoms can be viewed as normal reactions to a traumatic loss, their persistence over time is associated with decreased well-being (Boyle et al. 1996; Dyregrov et al. 2003). Both instruments were given at intake and again after an average of 14.64 h of mindfulness-based counseling utilizing the ATTEND model.

The IES-R is a self-report scale that parallels criteria for PTSD in the *DSM-IV* and measures traumatic stress responses in three areas: hyperarousal, intrusion, and avoidance (Weiss and Marmar 1997). It was adapted from the original Impact of Event Scale developed by Horowitz et al. (1979) and has demonstrated good predictive validity, high test–retest reliability (alpha = .89 to .94) (Weiss and Marmar 1997), and high internal consistency (alpha = .96) (Creamer et al. 2003). In a recent sample of bereaved parents, the IES-R exhibited a high level of internal consistency (alpha = .95) (Cacciatore et al. 2013). This scale contains 22 items inquiring about subjective experiences of distress (e.g., "I had trouble staying asleep") related to a traumatic experience. Items are scored on a five point Likert scale, on which 0 = not at all, 1 = a little bit, 2 = moderately, 3 = quite a bit, and 4 = extremely. The total score is divided by the number of items to obtain a mean score. The developers did not indicate a standard cutoff point above which clinically significant distress is thought to be present nor design the IES-R to be a diagnostic test, though it is generally accepted that a mean score of 1.5 or above indicates significant trauma symptoms (Creamer et al. 2003). This instrument does not reflect the changes to the PTSD criteria in *DSM-5*.

The HSCL-25 is a modified version of the 58-item self-report scale developed by Parloff et al. (1954) that is widely used to measure subjective symptoms of anxiety and depression (e.g., "Suddenly felt scared for no reason"). Items are scored on a four point Likert scale, in which 1 = not at all, 2 = a little bit, 3 = quite a bit, and 4 = extremely. A mean score is derived by dividing the total score by number of items. The HSCL-25 is considered to be adequate for screening for psychiatric disorders (Veijola et al. 2003). In a recent sample of bereaved parents, the HSCL-25 exhibited a high level of internal consistency (alpha = .96) (Cacciatore et al. 2013). Various cutoff points of mean scores have been used to indicate significant symptoms, ranging from 1.55 to 1.75 (Veijola et al. 2003). Due to the intensity of symptoms often noted in the traumatically bereaved (Badenhorst et al. 2006; Kaltman and Bonanno 2003), the higher cutoff point of 1.75 was used for this analysis.

Table 1 Treatment sample descriptive statistics

$n = 42$	Mean	*SD*	Proportion	Minimum	Maximum
Time since loss (years)	1.71	1.98	–	0.1	7.5
Hours at follow up	14.64	4.70	–	3.5	26.5
Weeks of treatment	19.18	10.68	–	5	56.9
Age at intake	38.98	11.2	–	20	75
Individual therapy	–	–	64 %	–	–
Death of child	–	–	81 %	–	–
Married	–	–	67 %	–	–
Female	–	–	71 %	–	–
White	–	–	86 %	–	–

Participants

Clients presented with a variety of symptoms including hyperarousal, intrusive thoughts, nightmares, avoidance, sleep and eating disturbances, sadness, despair, fear or anxiety for other loved ones, and pining for the person who died. Some also experienced significant cognitive impairment, inability to focus, relational strain with surviving partners/spouses and children, and unmanageable feelings of guilt and shame related to the death. While many of these symptoms are common following bereavement, they tend to be more intense and enduring following traumatic bereavement, such as the death of a child (Sanders 1979–1980).

All of the participants in this study were self-referred for grief counseling at a mental health agency serving the traumatically bereaved in a large urban setting in the southwestern United States. This sample should not be considered to be representative of the general population. Data collection occurred in 2011 and 2012. To be included in this study, participants had to have been seen by an agency counselor using the ATTEND model within the 24-month time frame, beginning in 2009, in which data were collected and have completed both intake and follow-up measures while they were receiving treatment. Participants were included regardless of whether their scores were above the clinical cutoff point on the IES-R or the HSCL-25.

Table 2 IES-R ($n = 42$) and HSCL-25 ($n = 41$) pre-test and post-test descriptive statistics and reliability

	Pre-test					Post-test				
	Mean	*SD*	Min.	Max.	Cronbach's alpha	Mean	*SD*	Min.	Max.	Cronbach's alpha
IES-R	2.16	0.77	0.41	3.55	0.92	1.48	0.71	0.14	2.82	0.92
Intrusion	2.53	0.78	0.63	4.00	0.81	1.96	0.92	0.38	3.75	0.86
Avoidance	1.75	0.86	0.25	3.50	0.81	0.99	0.68	0.00	2.88	0.82
Hyperarousal	2.20	1.01	0.33	4.00	0.80	1.52	0.95	0.00	3.83	0.82
HSCL-25	2.47	0.62	1.44	3.72	0.93	2.04	0.61	1.20	3.60	0.95
Anxiety	2.33	0.67	1.30	3.60	0.87	1.88	0.65	1.10	3.70	0.92
Depression	2.57	0.63	1.47	3.80	0.88	2.14	0.66	1.13	3.53	0.92

Table 3 Paired sample *t* test pre-test and post-test scores for IES-R ($n = 42$) and HSCL-25 ($n = 41$)

	Mean	*SD*	*SE*	Lower	Upper	*t*	*df*	Sig.
IES-R	0.68	0.56	0.09	0.50	0.85	7.84	41	0.000
Intrusion	0.57	0.64	0.10	0.38	0.77	5.81	41	0.000
Avoidance	0.77	0.68	0.11	0.56	0.98	7.32	41	0.000
Hyperarousal	0.69	0.81	0.13	0.43	0.94	5.49	41	0.000
HSCL-25	0.43	0.41	0.06	0.30	0.56	6.77	40	0.000
Anxiety	0.45	0.58	0.09	0.27	0.63	5.00	40	0.000
Depression	0.42	0.42	0.07	0.29	0.55	6.45	40	0.000

Secondary data were available for a total of 42 participants (42 for IES-R and 41 for HSCL-25), for a total of 83 score sets.

Participant demographic and treatment information is presented in Table 1.

Twenty-eight participants scored above the clinical cutoff point on both instruments at intake; two scored above the clinical cutoff point only on the IES-R (HSCL-25 score unavailable for one), and 10 scored above the clinical cutoff point on the HSCL-25 only (IES-R score unavailable for four).

Results

The scores of 42 participants were included in the IES-R analysis and 41 were included in the HSCL-25 analysis. Scales were created using the mean of available items. Four participants were missing one item each from the intake IES-R and two of these participants were also missing one item from the follow-up IES-R. One participant did not complete one item on the HSCL-25 at follow-up, and the intake score was used for this item. Another participant provided two answers to one HSCL-25 item at follow-up and the higher of the two scores was used. Cronbach's alpha was good to excellent for the IES-R and HSCL-25 full scales and subscales at both pre-test and post-test. Reliability, as well as means and standard deviations, for the full scales and subscales pre-test and post-test are available in Table 2.

Paired *t* tests were used to compare the two sets of scores and showed a statistically significant decline in the full and subscale mean scores for both instruments from pre-test to post-test. The effect size was large for the IES-R (Cohen's $d = 0.92$) and medium for the HSCL-25 (Cohen's $d = 0.70$). Results for the full scales and subscales are presented in Table 3.

There were a combined total of 83 scores sets. Twenty-three sets dropped to below the clinical cutoff, 12 on the IES-R and ten on the HSCL-25. An additional 47 score sets decreased (24 for IES-R and 23 for HSCL-25), though they either started and ended above (16 for IES-R and 18 HSCL-25) or below (eight for IES-R, five for HSCL-25) the clinical cutoff. A total of 14 sets increased (six for IES-R and eight for HSCL-25). For the HSCL-25, all of these scores began and ended above the clinical cutoff, while four of the sets for the IES-R did so, one began and ended below the clinical cutoff, and one began below and ended above the cutoff.

Because these data have only two time points, it is possible that the scores could be a measurement artifact instead of capturing a response to the treatment program (Campbell and Kenny 1999). To assess this possibility, mean changes in the IES-R scores were assessed using ANOVA across the six categories based on whether scores decreased or increased between times one and two in relation to the clinical cutoffs. In addition, we assessed whether any demographic or treatment-specific variables were related to a rise or decline in scores. There were statistically significant differences between

Table 4 IES-R pre-test & post-test scores by clinical cutoff (1.5) and treatment and demographic variables

	Reduction in scores ($n = 36$)			Increase in scores ($n = 6$)		
	Pre & post below clinical ($n = 8$)	Pre above clinical & post below clinical ($n = 12$)	Pre & post above clinical ($n = 16$)	Pre & post below clinical ($n = 1$)	Pre below clinical & post above clinical ($n = 1$)	Pre & post above clinical ($n = 4$)
IES-R mean change score	−0.50	−1.23	−0.67	0.55	0.07	0.09***
Time since loss (years)	1.53	2.53	1.14	2.29	0.12	2.16
Hours at follow up	16.69	12.88	14.61	25.75	3.50	16.00**
Weeks of treatment	24.62	19.37	16.58	34	15.14	19.18
Individual therapy	0.50	0.83	0.69	0.00	0.00	0.50
Death of child	0.88	0.67	0.88	1.00	1.00	0.75
Age at intake	37.38	42.55	39.44	39.00	32.00	32.25
Married	0.75	0.50	0.69	1.00	1.00	0.75
Female	0.63	0.92	0.75	0.00	0.00	0.50
White	0.75	0.92	0.81	1.00	1.00	1.00

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

groups on the amount of change in pre-test and post-test scores ($p < .001$), and in the hours at follow-up ($p < .01$), but no other variables were predictive of whether scores increased or decreased above or below the clinical cutoff. Results are available in Table 4.

Similarly, mean changes in the HSCL-25 scores are shown in Table 5 across the same six categories for those whose scores decreased and increased between times one and two in relation to the clinical cutoff. There were statistically significant differences between groups on the amount of change in pre-test and post-test scores ($p < .001$). In addition, those who received individual therapy (no couples therapy) were significantly more likely to have scores that decreased from above to below clinical levels on the HSCL-25 ($p < .05$). None of the other variables were predictive of whether scores increased or decreased above or below the clinical cutoff. The overall pattern is that most individuals had HSCL-25 and IES-R scores that decreased between time one and time two, and the change in scores for this group was much larger than for those whose scores increased. This pattern would not be evident if regression to the mean was a factor, particularly because the whole clinical sample was assessed; follow-up measurements are not examined on a sub-sample selected using a baseline value (Barnett et al. 2005).

Discussion

While it is not expected that mindfulness-based approaches will eliminate grief after the death of a loved one, they may alleviate some of the distress often experienced after traumatic bereavement. The current study suggests that bereaved parents may benefit from a mindfulness-based approach, as reductions in depressive, anxious, and trauma symptoms were observed following counseling with the ATTEND model. Positive results have also been reported in studies testing mindfulness-based approaches for these issues in other populations (Gordon et al. 2008; Kuyken et al. 2008; Piet et al. 2010), suggesting that mindfulness-based approaches are effective across a range of issues and with diverse populations. Mindfulness may help build tolerance for the intense emotional states experienced after traumatic loss and decrease experiential avoidance in both clients and providers. Thus, the ATTEND model may be a useful tool for practitioners, who are likely to encounter bereaved individuals in a variety of settings. A further benefit is that this model may help protect practitioners against the negative effects of exposure to traumatized clients (Thieleman and Cacciatore 2014).

The decline in participant mean scores on both the IES-R and HSCL-25 was statistically significant; approximately 36 % of participants (27 % of score sets) had scores that dropped below the clinical cutoff point for likely psychopathology on at least one measure. An additional 57 % of scores decreased but did not cross the cutoff point. A significant decline was seen on both the HSCL-25 anxiety and depression subscales and on all three IES-R subscales of intrusion, avoidance, and hyperarousal. This is an important finding, suggesting that improvement cannot be attributed solely to time since death. This is in line with findings that early intervention is not essential in order for treatment to be effective (Neimeyer and Currier 2009). Though it cannot be known from this study whether the intervention alone caused the decline in scores, this study did target the population most likely to benefit from a bereavement intervention, as

Table 5 HSCL-25 pre- and post-test scores by clinical cutoff (1.75) and treatment and demographic variables

	Reduction in scores ($n = 33$)			Increase in scores ($n = 8$)		
	Pre & post below clinical ($n = 5$)	Pre above clinical & post below clinical ($n = 10$)	Pre & post above clinical ($n = 18$)	Pre & post below clinical ($n = 0$)	Pre below clinical & post above clinical ($n = 0$)	Pre & post above clinical ($n = 8$)
HSCL-25 mean change score	0.29	0.67	0.60	–	–	−0.15***
Time since loss (years)	0.35	2.60	2.01	–	–	0.99
Hours at follow up	12.55	13.20	14.49	–	–	17.81
Weeks of treatment	17.91	17.90	19.26	–	–	21.27
Individual therapy	0.20	0.90	0.72	–	–	0.38*
Death of child	1.00	0.70	0.78	–	–	0.88
Age at intake	38.00	40.67	39.28	–	–	38.00
Married	0.80	0.70	0.61	–	–	0.63
Female	0.40	0.90	0.67	–	–	0.75
White	0.80	0.90	0.89	–	–	0.75

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

participants were experiencing relatively severe symptoms and were self-referred to counseling (Neimeyer and Currier 2009; Schut et al. 2001).

It is important to note that a number of participant scores slightly increased, indicating intensifying symptoms from pretest to posttest. It is possible that the time at which the instruments were administered could have affected scores, as certain dates, such as birthdays and anniversaries, may be associated with an increase in symptoms (Murphy et al. 2002). Alternatively, it is possible that intervention may lead to poorer results for some individuals for a variety of reasons, including those attributable to either the intervention style or clinician/client variables (Schut et al. 2001). This cannot be determined from this study, though it warrants further attention.

This model embodies many elements considered to be common factors in a therapeutic relationship, such as acceptance, empathy, and warmth (Lambert and Barley 2001), but is unique in that it also emphasizes the use of mindfulness by both the clinician and client and death education to minimize the clinician's death anxiety and avoidance. Additional research could investigate which specific ATTEND elements are most effective, which factors are associated with an increase in distress and which symptoms tend to increase, and whether or not these symptoms diminish with continued treatment or at follow-up. Additionally, randomized controlled trials are needed to better determine the efficacy of this approach.

Limitations

Though these findings are encouraging, several factors need to be considered in interpreting these results. This was an uncontrolled quasi-experimental trial conducted with a small, non-representative sample at a single agency. This sample was self-selected for treatment and cannot be considered to be representative of the general population. Because of this and other design factors, it cannot be determined whether or not the intervention was responsible for the change in scores, either positive or negative. It is possible that another type of intervention would have produced similar results. It is likely that clinicians had varying degrees of personal commitment to mindfulness, including the amount of time devoted to practices encouraged in the model, and this may have influenced client outcomes. Because the model is reflexive and philosophical rather than manualized, it is difficult to control for these types of possible confounders, from the degree of clinician and client mindfulness to specifics of mindfulness-based therapy. Although analysis showed that time at follow-up was associated with change on the IES-R and individual therapy was associated with change on the HSCL-25, other demographic, bereavement, or treatment related variables did not predict change in scores. It is possible that another variable not measured may have influenced the change in scores. This study was not able to measure participants' scores post-intervention or to assess whether or not the decrease in symptoms was maintained. In addition, the number of therapeutic contact hours and specific activities practiced by therapists and clients varied. This is an intentional function of this model, that is, to provide flexible, personalized care. However, further research with a more uniform sample would be informative.

Conclusion

These results are encouraging in that they suggest mindfulness-based interventions may hold promise for

alleviating symptoms resulting from traumatic bereavement, regardless of the length of time since bereavement. Because grief is often expected to diminish within weeks or months of the loss, the finding that scores declined even when participants entered treatment as many as 7 years post-loss is notable and suggests that this approach may be effective in treating protracted symptoms. A mindfulness-based model may improve patient outcomes (Grepmair et al. 2007) and protect clinicians against compassion fatigue and burnout (Christopher and Maris 2010; Goodman and Schorling 2012). One study suggests it may do so in those working specifically with the traumatically bereaved (Thieleman and Cacciatore 2014). Though the uncontrolled design of this study limits the interpretation of these results, further research is warranted. If randomized controlled trials support the efficacy of this model, it may be replicable in other populations.

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