Title

Multidimensional Grief Therapy: Pilot Open Trial of a Novel Intervention for Bereaved Children and Adolescents

Journal

Journal of Child and Family Studies, 28(11)

ISSN

1062-1024

Authors

Hill, Ryan M
Oosterhoff, Benjamin
Layne, Christopher M
et al.

Publication Date

2019-11-01

DOI

10.1007/s10826-019-01481-x

Peer reviewed

Journal of Child and Family Studies (2019) 28:3062–3074
https://doi.org/10.1007/s10826-019-01481-x

ORIGINAL PAPER

Multidimensional Grief Therapy: Pilot Open Trial of a Novel Intervention for Bereaved Children and Adolescents

Ryan M. Hill[1] · Benjamin Oosterhoff[2] · Christopher M. Layne[3,4] · Evan Rooney[1] · Stephanie Yudovich[1] · Robert S. Pynoos[3,4] · Julie B. Kaplow[1]

Published online: 11 June 2019

Abstract

Objectives This study describes a pilot open trial of Multidimensional Grief Therapy, an assessment-driven, phasic individual therapy for bereaved youth. This study provides a preliminary outcome evaluation with respect to maladaptive grief reactions, post-traumatic stress symptoms, and depressive symptoms in bereaved youth.

Methods The sample consisted of 65 bereaved youth (ages 6–17 years, $M = 11.62$, $SD = 2.76$; 53% female; 33.3% Hispanic, 31.8% African American/Black, 27.3% Caucasian, 6.1% mixed/biracial, 1.5% Native American). The study utilized a single-group open trial design. Youth referred to the study due to the death of a loved one completed measures of grief reactions, posttraumatic stress symptoms, and depressive symptoms. Measures were also completed following Phases I and II of the treatment.

Results Youth who completed Phase I ($n = 42$) reported significant reductions from baseline, with large to very large effect sizes (Cohen's D range = 0.77−1.35) for all three domains of maladaptive grief, post-traumatic stress symptoms, and depressive symptoms. Youth who completed Phase II ($n = 22$) exhibited significant reductions from the end of Phase I, with medium to large effect sizes (range = 0.57–0.90) for two domains of maladaptive grief as well as for posttraumatic stress symptoms and depressive symptoms.

Conclusions Although further evaluations using a wider array of outcomes are needed to evaluate MGT and the maintenance of treatment gains over time, the present study provides preliminary evidence supporting MGT as an individual treatment for bereaved youth experiencing maladaptive grief reactions, post-traumatic stress, and depressive symptoms.

Keywords Bereavement · Grief · Posttraumatic stress disorder · Treatment effectiveness · Depression

Childhood bereavement is one of the most commonly reported types of adverse life events in clinically-referred youth (Pynoos et al. 2014) and is highly prevalent in the general population (Breslau et al. 2004). The estimated worldwide lifetime prevalence of children bereaved by one or both parents was 151 million in 2011 (UNICEF 2013), which does not include deaths of close friends or other relations. Compared to other types of traumatic experiences, the death of a loved one is most frequently identified as the most *distressing* life event among both adults and youth, (Breslau et al. 2004; Kaplow et al. 2010). Compared to non-bereaved youth, bereaved youth are at higher risk for a range of mental and behavioral health problems including depression, posttraumatic stress reactions, substance use (Berg et al. 2016; Cerel et al. 2006; Pham et al. 2018), decreased academic performance (Oosterhoff et al. 2018), and suicide (Guldin et al. 2015).

Despite the growing body of research on the potentially deleterious effects of bereavement on youth adjustment, few studies have yet examined links between bereavement and maladaptive grief reactions in youth. This gap likely reflects the comparative newness of the childhood bereavement field, given that studies are only beginning to clarify the

✉ Julie B. Kaplow
Julie.Kaplow@bcm.edu

[1] Baylor College of Medicine/Texas Children's Hospital, Houston, TX, USA

[2] Department of Psychology, Montana State University, Bozeman, MT, USA

[3] UCLA/Duke National Center for Child Traumatic Stress, Los Angeles, CA, USA

[4] Department of Psychiatry and Biobehavioral Sciences, University of California, Los Angeles, Los Angeles, CA, USA

etiology, clinical presentation, developmentally-linked manifestations, and incremental predictive utility of maladaptive grief reactions over and above the effects of bereavement (Geronazzo-Alman et al. 2019; Melhem et al. 2007). The inclusion of *Persistent Complex Bereavement Disorder* (PCBD) as a provisional (candidate) disorder in the Appendix of DSM-5 (American Psychiatric Association 2013) is a call to action for rigorously designed studies to accurately measure and evaluate the proposed PCBD criteria across diverse populations and age groups. Its inclusion in the Appendix also serves as a call for the development of novel treatments capable of reducing maladaptive grief reactions among diverse populations (Layne et al. 2017).

Primary symptom clusters of PCBD span four primary conceptual dimensions (American Psychiatric Association 2013). These include: (1) *Separation Distress*, including persistent intense yearning, longing, sorrow, and preoccupation with the deceased; (2) *Reactive Distress* in response to the death, including difficulty accepting the death, difficulty reminiscing, and excessive avoidance of loss reminders (e.g., the deceased's belongings or friends; formerly shared activities); (3) *Disruptions in Personal and Social Identity*, including feeling like part of oneself has died; and (4) *Preoccupation with the Circumstances of the Death*, including distress reactions to loss reminders (e.g., hearing the name of the deceased evokes distressing recollections of how they died). The extant literature suggests that a small but important subset of bereaved youth (approximately 10%) report developing a syndrome distinct from normal grief reactions that corresponds to some of the proposed PCBD criteria (Boelen et al. 2018; Dillen et al. 2009; Layne et al. 2001; Maciejewski et al. 2016; Melhem et al. 2008, 2011). This syndrome may represent a serious mental health problem as gauged by its links to psychological and behavioral problems, functional impairment, and developmental disruption (Lenferink et al. 2018; Melhem et al. 2008, 2011; Spuij et al. 2012). Using a newly-developed measure of PCBD for bereaved children and adolescents, Kaplow et al. (2019a) examined prevalence rates of PCBD in a community sample of 367 bereaved youth ($M_{age} = 13.49$, $SD = 2.76$, Range = 8–18 years; 55.0% female; 46.0% African American, 39.2% Caucasian, 6.5% Biracial, 4.8% Other, 0.8% Asian, 2.5% Hispanic). Approximately 18% of the sample met full provisional diagnostic criteria for PCBD. This prevalence rate is higher than those reported in prior studies—a finding that may have arisen from the study design, which sampled from an underserved population more diverse in both SES and type of death (e.g., a higher frequency of "traumatic" deaths) than prior studies.

The prevalence and clinical significance of maladaptive grief has prompted the development of theories that outline its nature, structure, and correlates. Multidimensional grief theory is a developmentally-informed framework for conceptualizing a broad range of both adaptive and maladaptive grief reactions (Kaplow et al. 2013; Layne et al. 2017). The theory proposes that childhood grief reactions can be characterized by three broad dimensions comprised of *Separation Distress, Existential/Identity Distress*, and *Circumstance-Related Distress*. Separation Distress centers on responses to the continuing absence of, and inability to physically reunite with the deceased. Separation distress is characterized by such reactions as missing the deceased; sadness over the persisting separation; heartache over the deceased's failure to return; yearning or longing to be physically reunited with them; and protest, anger, or despair over the continuing separation. In contrast, Existential/Identity Distress involves responses to personal existential and/or identity-related challenges occasioned by the death of a loved one and its ensuing disruptions, deprivations, and hardships. Maladaptive responses to these existential and identity related challenges are theorized to arise from severe disruptions in one's sense of self, life plans and aspirations, and sense of purpose and meaning. Such personal crises may be manifest by the perception of being greatly diminished by the loss, being "stuck" (i.e., developmentally frozen), avoidance of planning for the future, and loss of interest in formerly valued activities. Last, circumstance-related distress involves troubling thoughts and emotional pain over the particular manner of death and is theorized to arise in reaction to deaths that have occurred under tragic and potentially traumatic conditions, including fatal accidents, homicide, suicide, negligence, and the progressive physical deterioration of loved ones due to wasting illness (Kaplow et al. 2014). Theorized manifestations include distressing mental images regarding the circumstances of the death, distressing thoughts and beliefs regarding the deceased's manner of death, including blame of self and others, confusion, bewilderment, feeling shocked or dazed over how they died, and retaliatory fantasies. Circumstance-related distress may also involve intense negative emotions including terror, horror, revulsion, anger, rage, shame, guilt, and desires for revenge on those believed to be responsible (Layne et al. 2017). Multidimensional grief theory posits that grief is a normative reaction to loss, while distinguishing between theorized adaptive and maladaptive responses. Adaptive grief reactions facilitate healthy functioning, including a comforting connection to the deceased, honoring the deceased's memory, finding meaning, commitment to live a good life, and acts of service. In contrast, maladaptive grief reactions contribute to maladjustment and are distinguished by differentially stronger links to psychological distress, a sense of disconnection from the deceased, functional impairment, and risky behavior (Layne et al. 2017).

Intervention based on multidimensional grief theory is based on four key propositions (Kaplow et al. 2019b; Layne et al. 2017): (a) Both adaptive and maladaptive grief reactions can arise within each primary conceptual domain (e.g., separation distress, existential/identity distress, circumstance-related distress) as an inherent reaction to bereavement. (b) Positive and negative adjustment processes can and frequently do co-occur within a given domain. (c) Different dimensions of grief may call for different intervention objectives and practice elements (e.g., finding ways to feel connected to the deceased vs. finding a sense of meaning in the loss), underscoring the therapeutic value of assessment-driven case formulation, treatment planning, and tailored intervention. (d) The primary aims of intervention are to both facilitate and encourage adaptive grieving, and help maladaptive grieving to recede in its frequency, intensity, duration, and causal potency over time.

Multidimensional grief theory also places a heavy emphasis on understanding the socioenvironmental contexts within which bereavement and subsequent adjustment take place. The theory postulates that children depend heavily on their immediate caretaking environment to facilitate their mourning (Clark et al. 1994; Shapiro et al. 2014; Wardecker et al. 2017). Multidimensional grief theory proposes that bereavement-focused intervention should seek to systematically assess and therapeutically harness, as appropriate, child-intrinsic and extrinsic factors as an integral part of facilitating positive adjustment to the loss, including by strengthening the caregiving system. *Multidimensional grief therapy* draws on basic tenets of multidimensional grief theory to facilitate adaptive grief reactions, reduce maladaptive grief reactions, and promote positive developmental progression in bereaved children, adolescents, and their families.

Reviews and meta-analyses within the small but growing childhood grief literature have often used "treatment" loosely, presumably to include as many studies as possible. In doing so, however, a number of these reviews have conflated grief *support* programs (i.e., peer support), which are generally presumed to benefit the majority of bereaved youth regardless of symptom presentation, with psychosocial *treatments* (i.e., group or individual psychotherapy) designed to address severe and persisting grief reactions (Kaplow et al. 2019b). Given its focus on treating maladaptive grief reactions in youth, the present study summarizes *treatments* specifically designed to assist bereaved youth experiencing high levels of bereavement-related distress.

To date, several treatments have been developed to assist bereaved youth in coping with the death of a close loved one (for a detailed review, see Kaplow et al. 2019a). *The Family Bereavement Program (FBP)* is a 12-session group-based treatment for bereaved caregivers and their children, ages 8 to 16, designed to promote resilience following bereavement (Ayers et al. 2014; Sandler et al. 2013). The FPB emphasizes supporting and strengthening parent-child relationships, development of active coping skills promoting self-esteem and adaptive control beliefs, and emotional expression as major treatment elements (Ayers et al. 2014). A randomized trial involving 156 parentally-bereaved families and 244 children examined program impact following treatment and up to six years later (Sandler et al. 2003; Sandler et al. 2010; Sandler et al. 2010). Youth in FBP demonstrated lower levels of externalizing problems, higher self-esteem, and improved academic performance as compared to youth in the control condition at post-treatment (Sandler et al. 2003). Youth in FBP also demonstrated a lower prevalence of suicide ideation or behaviors (Sandler et al. 2016) and lower levels of dysregulated physiological stress response (i.e., measured by evening cortisol; Luecken et al. 2010) compared to those in the control group. Regarding grief-related outcomes, youth in the FBP group showed greater reductions in intrusive grief-related thoughts at post-test and 6-year follow-up compared to the control group.

Grief-Help is a treatment designed for bereaved children and adolescents aged 8 to 18 years (Boelen et al. 2006; Spuij et al. 2015) and is delivered in nine individual sessions accompanied by five individual parent/caregiver sessions. Primary intervention objectives of Grief-Help are to decrease symptoms of Prolonged Grief Disorder (PGD), PTSD, and depression. Grief-Help pairs psychoeducation about grief processes with cognitive-behavioral treatment elements (e.g., cognitive restructuring, problem solving, and behavioral activation) (Spuij et al. 2013). Grief-Help was initially examined in a multiple baseline study of six bereaved children and adolescents, demonstrating reductions in child-rated symptoms of PGD, PTSD, depression, and parent-rated behavior problems (Spuij et al. 2013). A subsequent trial involving 10 bereaved youth (aged 10 to 18) seeking treatment at an outpatient clinic in the Netherlands also showed significant improvements in self-rated PGD, depression, and PTSD (Spuij et al. 2015).

The Grief and Trauma Intervention (GTI) is designed for children who have experienced trauma and/or traumatic bereavement (Salloum 2008). The primary intervention objectives of GTI are to reduce posttraumatic stress, depressive symptoms, and traumatic grief reactions and to develop coping skills and facilitate meaning-making. GTI combines elements of cognitive-behavioral therapy and narrative therapy. GTI includes narrative exposure, development of a detailed loss narrative, positive coping strategies, and making meaning of and accommodation to the loss (Salloum and Overstreet 2008). GTI was evaluated in an open trial (Salloum 2008) and a subsequent randomized clinical trial with 56 children comparing the GTI delivered individually versus in small groups (Salloum and Overstreet 2008). Children in both groups reported significant reductions in

posttraumatic stress symptoms, depression, traumatic grief, and global distress regardless of treatment modality (e.g., individual therapy vs. group therapy) (Salloum ad Overstreet 2008). A third study of GTI for children who had experienced community violence, the death of someone close, and/or hurricane exposure, demonstrated similar results, with outcomes maintained up to 12 months post-intervention (Salloum and Overstreet 2012).

Trauma-Focused Cognitive Behavioral Therapy for Childhood Traumatic Grief (TF-CBT) is an evidence-based child trauma-focused therapy for youth between the ages of 6 and 17 (Cohen et al. 2017), with additional grief-focused components for children experiencing "childhood traumatic grief", defined as posttraumatic stress symptoms that infringe on normative grief-related tasks (Cohen et al. 2004). Treatment includes psychoeducation, coping skill development, creation of a trauma narrative, addressing unresolved issues and ambivalent feelings about the deceased, and creating positive memories of the deceased (Cohen et al. 2006). In a study of 22 bereaved children (aged 6 to 17 years) and their primary caregivers, children showed significant improvements in childhood traumatic grief, PTSD, depressive symptoms, anxiety, and behavioral problems after a 16-week course of TF-CBT delivered individually by masters and doctoral-level social workers (Cohen et al. 2004). In a study of 39 bereaved children aged 6 to 17 years, a 12-session protocol of TF-CBT for childhood traumatic grief produced significant improvements in PTSD and childhood traumatic grief symptoms (Cohen et al. 2006). Finally, among 64 orphaned children, aged 6 to 13 years in Moshi, Tanzania, results of a modified (group-based) protocol of TF-CBT for childhood traumatic grief showed improved scores on posttraumatic stress, "unresolved grief," and depressive symptoms at post-treatment, as well as at 3 and 12 month follow-ups (O'Donnell et al. 2014).

Trauma and Grief Component Therapy for Adolescents (TGCTA) is a modularized treatment for adolescents aged 11 to 18 whose histories of exposure to trauma and/or bereavement place them at high risk for severe persisting distress, functional impairment, and developmental disruption (Saltzman et al. 2017). Originally designed for group-based settings, TGCTA has also been adapted and implemented in individual settings. TGCTA modules are flexibly assigned and tailored based on youths' assessment profiles. Primary intervention objectives include reducing posttraumatic stress reactions, maladaptive grief reactions, and depressive symptoms; facilitating adaptive grief reactions; strengthening self-regulation, problem-solving, and other coping skills; strengthening and expanding youths' social support networks; reducing risky behavior; improving school behavior and academic performance as needed; and promoting adaptive developmental progression and good citizenship. TGCTA has been implemented and evaluated in multiple settings, including in schools following a 1988 earthquake in Armenia (Goenjian et al. 1997), underserved inner-city youth exposed to high rates of community violence (Saltzman et al. 2001), and following the 1992-1995 Bosnian civil war (Layne et al. 2008). Layne et al. (2008) conducted a randomized controlled trial with bereaved adolescents treated five years after the end of a devastating civil conflict. Those receiving TGCTA demonstrated significant reductions in posttraumatic stress, depressive symptoms, and maladaptive grief reactions (Layne et al. 2008) compared to a contrast group that received psychoeducation and skills-based training only. More recently, TGCTA was field tested in an open trial with high-risk high school students, showing evidence of effectiveness in reducing both posttraumatic stress and maladaptive grief reactions (Grassetti et al. 2015). To our knowledge, TGCTA is the only grief treatment for youth to demonstrate reductions in maladaptive grief reactions as measured by a PCBD- prototype assessment tool, the Grief Screening Scale (GSS; Claycomb et al. 2016).

Despite these promising findings, the existing array of treatments for childhood bereavement have typically been developed as adaptations or extensions of *trauma*-focused therapies and not as stand-alone *grief-focused* interventions. As a result, these interventions typically focus on addressing traumatic elements of the bereavement experience, rather than grief-related elements such as loss, separation, and changes to youths' identities as a result of the death. Thus, a manualized intervention for youth seeking services primarily due to the death of a loved one, including losses that may or may not have occurred under traumatic circumstances, is needed. Further, previous intervention studies have typically focused on trauma-related outcomes (e.g., PTSD, circumstance-related distress reactions to traumatic features of the death) without addressing other dimensions of grief reactions (e.g., separation distress, existential/identity distress as reflected by PCBD Criteria B and C symptoms). Given that different dimensions of grief may call for separate intervention objectives and practice elements (Kaplow et al. 2019b), an assessment-driven intervention that can effectively identify and address those dimensions is needed.

The present study describes preliminary outcomes of a pilot open trial of Multidimensional Grief Therapy, a psychosocial intervention developed for bereaved youth aged 6–17 years. As MGT was developed based on core tenets of multidimensional grief theory, we hypothesized that successful completion of MGT would be associated with reductions in maladaptive grief reactions (as measured by all three multidimensional grief theory domains as well as PCBD diagnostic criteria), PTSD symptoms, and depressive symptoms.

Method

Participants

Participants were 65 youths, 6 to 17 years of age, and their parents/guardians seeking bereavement-related services at a trauma and grief specialty outpatient clinic. Participants were recruited from a large urban area in the United States via referrals from community agencies and schools in the clinic's catchment area, or via self-referral, from October 2014 through June 2016. Inclusion criteria were (1) endorsement of bereavement (i.e., death of a loved one); and (2) a mean cut-off score of >2 on any grief domain (as measured by the PCBD Checklist); or (3) high levels of psychological distress warranting intervention, as judged by consensus of the clinical team. Figure 1 presents a diagram of recruitment, enrollment, and study procedures. In total, 179 parent/guardian and child pairs provided consent/assent and completed an initial assessment. Of those assessed, 114 did not meet inclusion criteria and were directed either toward alternative treatment (e.g., other cognitive-behavioral treatment as indicated by clinical presentation) or were deemed not in need of individual therapy services; 65 were selected for and participated in the open trial. The high rate of exclusion aligns with previous research indicating that grief is a normative process and that only a subset of youth endorse persistent maladaptive grief reactions (Dillen et al. 2009; Melhem et al. 2008, 2011).

Participants (53.0% female) ranged in age from 6 to 17 years ($M = 11.62$, $SD = 2.76$). The ethno-racial distribution of the sample approximated that of the geographic catchment area in which the clinic is located. Parents reported children's race/ethnicity as Hispanic (33.3%), African American or Black (31.8%), Caucasian (27.3%), mixed/biracial (6.1%), or Native American (1.5%).

Table 1 presents means and standard deviations of clinical variables at each time point. At the time of the focal death, youths ranged in age from 3–16 years ($M = 10.26$, $SD = 3.30$), with an average duration since the death of 16.29 months ($SD = 19.49$, range = 1–84 months). The majority identified the death of a parent as their most difficult death ($n = 22$, 34.4% mother; $n = 20$, 31.4% father), followed by death of a sibling ($n = 11$, 16.7%), death of a grandparent or great-grandparent ($n = 7$, 10.6%), and death of another relation ($n = 5$, 7.5%). The most common cause of death was sudden illness, such as heart attack or stroke ($n = 24$, 36.4%); followed by chronic illness such as cancer ($n = 13$, 19.7%); murder ($n = 10$, 15.2%); accident such as a car accident, drowning, or fire ($n = 9$, 13.6%); suicide ($n = 4$, 6.1%); and other ($n = 6$, 9.0%).

Procedure

All procedures were reviewed and approved by the appropriate Institutional Review Board prior to the start of the study. Parents/guardians seeking psychological services for their children first contacted the clinic. They were then provided with a brief description of the clinic and services available, and if deemed appropriate, were scheduled for an initial assessment (T1), where parent/guardian written consent and child written assent were obtained. All assessments and treatment sessions were completed in private clinic rooms within an outpatient clinic setting. The T1 assessment consisted of the primary study outcome

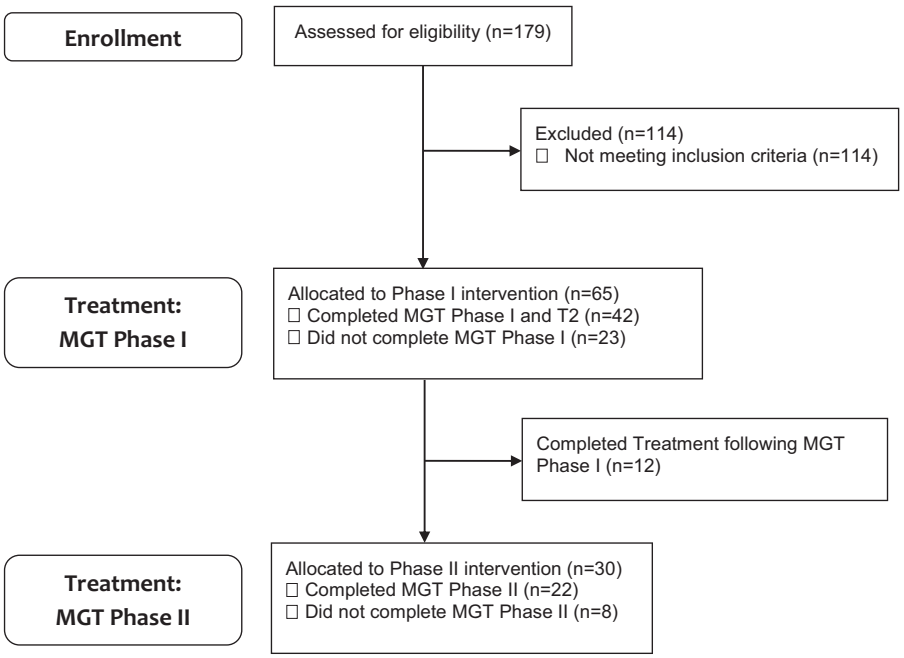

Fig. 1 Participant flow

Table 1 Means and standard deviations of clinical variables

	Time 1 ($n = 65$)		Time 2 ($n = 42$)		Time 3 ($n = 13$)		Time 1 versus Time 2		Time 2 versus Time 3	
	M	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	t(df)	*p*	t(df)	*p*
PCBD Checklist Scales										
Separation Distress	2.25	(0.77)	1.41	(0.79)	1.06	(0.69)	8.74 (41)	<0.001	2.81 (18)	0.01
Existential/Identity Distress	2.01	(0.83)	1.20	(0.81)	1.05	(0.64)	6.76 (41)	<0.001	1.29 (18)	0.21
Circumstance-Related Distress	2.05	(0.78)	1.21	(0.81)	0.84	(0.66)	7.58 (41)	<0.001	2.47 (18)	0.02
PCBD Criterion B Score	12.86	(2.46)	9.36	(4.00)	7.84	(4.32)	6.78 (41)	<0.001	2.87 (18)	0.01
PCBD Criterion C Score	28.57	(9.55)	17.67	(9.22)	14.42	(7.78)	7.76 (41)	<0.001	2.38 (18)	0.03
PTSD Symptom Score	33.34	(16.24)	24.88	(14.12)	16.50	(12.64)	5.19 (41)	<0.001	3.80 (17)	0.001
Depressive Symptom Score	9.46	(6.18)	6.02	(4.04)	4.06	(3.96)	5.03 (41)	<0.001	3.33 (17)	0.004

PCBD persistent complex bereavement disorder

measures (as described below), as well as a parent psychosocial interview.

Following the T1 assessment, both the parent/guardian and youth participated in a feedback session where the assessment results were reviewed (in age-appropriate language) and clinical recommendations were provided. Families for whom MGT was recommended were then assigned a clinician and commenced treatment. Clinicians were trained in the delivery of MGT by one of the treatment developers (JK). The clinical team included clinical psychologists, social workers, and supervised advanced clinical psychology interns and postdoctoral fellows. Treatment was provided via weekly sessions at an outpatient clinic within a large medical center. Immediately following Phase I, a second assessment (T2) was completed. If youth were judged, based on the assessment profile and via discussion with youth and caregivers, to have substantially improved and no longer require treatment, treatment was terminated. In contrast, youth whose profiles exhibited elevated maladaptive grief reactions or post-traumatic stress reactions were assigned to Phase 2, which began immediately. Following Phase 2, a third assessment (T3) coincided with treatment termination. Modest remuneration ($20) was provided to youth for completing each assessment; no incentives were provided for attending treatment sessions. Due to the single-group open trial design, participants and assessors were not blinded to study condition.

Multidimensional grief therapy (MGT)

MGT is a theoretically derived, assessment-driven intervention designed specifically to reduce maladaptive grieving (e.g., intense sadness and separation distress, preoccupying and distressing thoughts about the manner of death), facilitate adaptive grieving (e.g., finding healthy ways of feeling connected to the deceased, making meaning of the loss), and promote adaptive developmental progression in bereaved children and adolescents aged 6 to 17 years (Kaplow et al. 2019b). MGT includes specific treatment components that are tailored to address each dimension of grief described by multidimensional grief theory (Kaplow et al. 2013; Layne et al. 2017) based on each child's assessment profile. MGT incorporates a wide range of grief-focused exercises that target a broad array of grief reactions and bereavement-related circumstances. Sessions are delivered individually, once per week; MGT exercises also incorporate dyadic caregiver-child sessions designed to enhance communication and parental grief facilitation (whereby the caregiver engages in activities that help the child to grieve in adaptive ways).

MGT is divided into two phases. Phase I, titled *Learning about Grief*, focuses primarily on psychoeducation, skill building, and identification of loss and trauma reminders. Phase I includes psychoeducation regarding the various grief domains and normalizing grief reactions (Session 1); emotion identification/regulation strategies (e.g., deep breathing, coping skills; Session 2); discussion of how grief reactions can fluctuate over time (Session 3); enhancement of parental grief facilitation (e.g., identifying helpful/unhelpful parental behaviors; Session 4); identification of loss and trauma reminders, including how they can evoke different grief reactions (Session 5); and cognitive coping strategies to address unhelpful thoughts across each domain of grief (including the cognitive-behavioral triangle; Session 6). Multiple sessions of Phase I also encourage positive reminiscing about the deceased to promote and reinforce adaptive grief reactions to separation distress.

Phase II, titled, *Telling My Story*, guides the child through their own loss narrative by focusing on each grief domain and promoting adaptive grief reactions. The loss narrative includes several "chapters" that help youth to organize and explore their thoughts, emotions, and experiences in a safe manner under the guidance of the therapist. Topics in the loss narrative include describing the deceased,

identification of what the child misses most about the person, helping the child find comforting ways to feel connected to the deceased, working through the manner and circumstances of the death, the child's beliefs about what happens after death, identifying changes in the child's life as a result of the death, making meaning of the death, preparing for a future without the deceased person, and finding ways to carry on their legacy. Phase II also includes sharing the completed loss narrative with a parent/guardian.

MGT's two-phase structure allows treatment to be tailored, in both duration and intensity, in accordance with an individual child's assessed needs and strengths. Youth begin with Phase I and proceed through each Phase I session after which they are re-assessed to gauge the effectiveness of treatment to that point. Youth who report few maladaptive grief reactions and/or for whom treatment goals have been met (e.g., significant reductions in PTSD and improved functioning) following completion of Phase I may not require additional treatment and may thus terminate therapy. In contrast, youth who manifest continued maladaptive grief reactions or PTSD symptoms are encouraged to continue with Phase II. Although the contents of Phases I and II are divided into sessions, MGT is designed to encourage "flexibility within fidelity" by tailoring treatment to meet each child's needs. As such, as dictated by a child's unique grief presentation, individual needs, family system, developmental level, and life circumstances, sessions may be expanded or condensed at the therapists' discretion. Thus, the duration of MGT may vary; it is not conducted over a set number of individual sessions. For example, a course of MGT may be longer for an individual with few coping skills or who may be encountering extensive trauma reminders (resulting in extra time spent on the content of Phase I Sessions 2 or 5, respectively).

Measures

Maladaptive grief reactions

The Persistent Complex Bereavement Disorder (PCBD) Checklist is a 39-item measure of grief for youth designed to assess DSM-5 provisional PCBD criteria and identify youth at risk for maladaptive grief (Layne et al. 2014). Items are rated on a 5-point Likert type scale ranging from 0 (*not at all*) to 4 (*all the time*). The PCBD Checklist has demonstrated strong convergent, discriminant, and discriminant-groups validity as well as developmental appropriateness and clinical utility (Kaplow et al. 2018). The PCBD Checklist can be flexibly scored either in accordance with the proposed criteria for PCBD, or alternatively, in relation to the primary grief domains proposed by multidimensional grief theory (*Separation Distress, Existential/Identity Distress, Circumstance-Related Distress*). For the present study, both scoring systems were utilized with the aim of presenting results consistent with both proposed criteria for PCBD, as well as the primary goals of MGT and multidimensional grief theory. Scoring according to multidimensional grief theory involved averaging the items in each of the three grief domains (possible range = 0 to 4). In the present study, internal consistency (Cronbach's Alpha) values were 0.92 for Separation Distress (k = 15 items), 0.87 for Existential/Identify Distress (k = 7), 0.84 for Circumstance-Related Distress (k = 10), 0.60 for PCBD Criterion B (k = 7), and 0.88 for PCBD Criterion C (k = 22).

PTSD symptoms

The 35-item UCLA PTSD Reaction Index for DSM-5 (Elhai et al. 2013) was used to assess child posttraumatic stress symptoms secondary to the death. Symptoms (e.g., "I have upsetting thoughts, pictures, or sounds of what happened come into my mind when I do not want them to") are rated on a 5-point scale from 0 (*never happens*) to 4 (*most of the time*). The total score represents the sum of ratings for 17 symptoms (range = 0–55). A score of 35 or higher represents clinically significant symptoms of PTSD (Rolon-Arroyo et al. 2017). Present study internal consistency was $\alpha = 0.91$.

Depressive symptoms

The 13-item Short Mood and Feelings Questionnaire (SMFQ; Angold et al. 1995) was used to assess child depressive symptoms. Frequency of symptoms (e.g., "I felt miserable or unhappy") experienced during the last two weeks is rated on a 3-point scale (0 = *not true*, 1 = *sometimes true*, 2 = *true*). Responses are summed to create a total score (range = 0–26). A score of 8 or higher is an indicator of clinically significant symptoms (Thapar and McGuffin 1998). Present study internal consistency was $\alpha = 0.91$.

Data Analyses

All analyses were conducted using SPSS 24.0. We first examined missing data due to attrition by comparing treatment completers versus treatment non-completers on demographic and clinical variables. Treatment completion was defined as completing each treatment session as well as the subsequent assessment. Treatment non-completion refers only to those who met inclusion criteria but did not complete the recommended Phase(s) of treatment. Phase I completers reported significantly higher PTSD symptom levels ($M = 36.43$, $SD = 15.39$) at T1 than treatment non-completers ($M = 26.83$, $SD = 16.73$, $t(64) = 2.36$, $p =$

0.02). There were no other significant differences between Phase I completers and treatment non-completers on any clinical or demographic variables. Phase II completers and treatment non-completers did not differ significantly on any demographic or clinical variables. Other than as a result of attrition, there were no other missing data. We then evaluated the data for multivariate statistical outliers using the decision rule (*if leverage index ≥ 4x the mean leverage, then classify as a statistical outlier;* Tabachnick and Fidell 2013). This procedure detected no multivariate outliers.

We then examined group-level treatment effects using paired-samples t-tests to compare T1 versus T2 scores, and T2 versus T3 scores, for all clinical outcomes. We also calculated effect sizes for statistically significant tests as d-values, gauged by Cohen (1969) as 0.20 = small, 0.50 = medium, and 0.80 = large. We conducted all group-level analyses using the treatment-completer sample only given that post-treatment data were unavailable for treatment non-completers. To complement these group-level analyses, we calculated Reliable Change Index (RCI) values (Jacobson and Truax 1991; Tingey et al. 1996) using Coefficient Alpha as the reliability estimate as recommended by Lambert and Ogles (2009). The RCI is an analytic tool that can, for a given outcome measure, classify individual cases into three mutually exclusive groups comprised of (a) *reliable improvers*, (b) *reliable deteriorators*—both as indicated by difference scores on the outcome measure $> \pm 1.96\sqrt{(2(SE)^2)}$, respectively; or (c) *treatment nonresponders*, indicated by difference scores $\leq |1.96\sqrt{(2(SE)^2)}|$.

Results

MGT Phase I Evaluation

Group mean outcomes. Of 65 youth enrolled in treatment, 42 (63.6%) completed Phase I and the T2 assessment. Phase I completers attended an average of 8.31 sessions (SD = 4.09, range = 3–18) drawn from Phase I. In contrast, treatment non-completers ($n = 23$) completed an average of 3.58 sessions ($SD = 2.47$, range = 1–11) drawn from Phase I. A comparison of treatment completers versus non-completers with regard to demographic and clinical characteristics is presented in Table 2. Phase I completers reported significantly higher PTSD symptom levels (M = 36.43, $SD = 15.39$) at T1 than treatment non-completers (M = 26.83, $SD = 16.73$, t(64) = 2.36, $p = 0.02$).

Table 1 presents paired sample t-tests comparing youth-reported symptoms from T1 to T2. Analyses of grief reactions consistent with multidimensional grief theory

Table 2 Demographic and clinical characteristics of treatment completers and treatment non-completers for each treatment phase

	Phase I		Phase II	
	Treatment completers $n = 42$	Treatment Non-completers $n = 23$	Treatment completers $n = 22$	Treatment Non-completers $n = 8$
Age (in years)	11.45 (2.75)	11.96 (2.87)	11.75 (2.71)	10.37 (2.53)
Time since death (in months)	16.88 (20.70)	15.17 (18.00)	19.35 (24.11)	20.60 (21.58)
Sex (% Female)	50.0%	56.5%	55.0%	45.5%
Race/ethnicity	33.0% White	17.4% White	35.0% White	9.1% White
	35.7% Black	26.1% Black	25.0% Black	63.6% Black
	21.4% Hispanic	52.2% Hispanic	30.0% Hispanic	9.1% Hispanic
	7.1% Mixed race	4.3% Mixed race	10.0% Mixed race	9.1% Mixed race
	T1 Symptom Scores		T2 Symptom Scores	
PTSD symptom score	36.43 (15.39)*	26.83 (16.73)*	24.15 (12.31)	20.14 (10.93)
Depressive symptom score	10.40 (6.29)	7.46 (5.73)	6.54 (5.28)	3.14 (2.04)
Separation distress	2.12 (0.70)	1.97 (0.77)	1.11 (0.67)	1.01 (0.40)
Existential/identity distress	2.11 (0.79)	1.83 (0.72)	1.04 (0.71)	0.83 (0.64)
Circumstance-related distress	1.95 (0.79)	1.91 (0.72)	0.92 (0.75)	1.04 (0.65)
PCBD criterion B Score	12.86 (2.46)	11.58 (2.78)	12.64 (2.46)	14.20 (2.05)
PCBD criterion C Score	28.57 (9.55)	27.21 (8.25)	26.64 (8.54)	28.00 (11.36)

*indicates significant baseline differences at $p < .05$

Table 3 Treatment response rates

	PCBD symptoms scores										PTSD symptom score		Depressive symptom score	
	Separation istress		Existential/ identity distress		Circumstance-related distress		PCBD criterion B		PCBD criterion C					
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Time 1 to Time 2														
Reliable improvement	26	61.9%	23	54.8%	18	42.9%	14	33.3%	26	61.9%	21	50.0%	15	35.7%
Non-response	16	38.1%	18	42.9%	24	57.1%	28	66.7%	16	38.1%	19	45.2%	25	59.5%
Reliable deterioration	0	–	1	2.4%	0	–	0	–	0	–	2	4.8%	2	4.8%
Time 2 to Time 3														
Reliable improvement	4	21.1%	4	21.1%	3	15.8%	5	26.3%	5	26.3%	7	38.9%	3	16.7%
Non-response	14	73.7%	14	73.7%	15	78.9%	14	73.7%	13	68.4%	11	61.1%	15	83.3%
Reliable deterioration	1	5.3%	1	5.3%	1	5.3%	0	–	1	5.3%	0	–	0	–

identified significant reductions and very large associated effect sizes in each of the three theorized domains of maladaptive grief reactions. Very large post-Phase I effects were found for Separation Distress, ($t(41) = 8.74$, $p < 0.001$, mean difference (M_{diff})=0.90, 95% CI [0.69, 1.10], Cohen's $d = 1.35$); existential/identity distress, ($t(41) = 6.76$, $p < 0.001$, $M_{diff} = 0.92$, 95% CI [0.65, 1.20], $d = 1.04$); and circumstance-related distress, ($t(41) = 7.58$, $p < 0.001$, $M_{diff} = 0.86$, 95% CI [0.63, 1.09], $d = 1.17$). Similarly, analyses of grief reactions consistent with proposed PCBD criteria identified significant reductions and very large associated effect sizes for Criterion B, ($t(41) = 6.78$, $p < 0.001$, mean difference (M_{diff}) = 3.50, 95% CI [2.46, 4.54], Cohen's $d = 1.05$) and Criterion C ($t(41) = 7.76$, $p < 0.001$, mean difference (M_{diff}) = 10.90, 95% CI [8.07, 13.74], Cohen's $d = 1.20$). Significant reductions and large effect sizes from T1 to T2 were also identified for PTSD symptoms ($t(41) = 5.19$, $p < 0.001$, $M_{diff} = 11.55$, 95% CI [7.05, 16.04], $d = 0.80$); and depressive symptoms ($t(42) = 5.03$, $p < 0.001$, $M_{diff} = 4.33$, 95% CI [2.59, 6.06], $d = 0.77$).

Individual case outcomes. We then calculated RCI values for the 42 youth who completed Phase I. Table 3 presents the numbers and percentages of participants exhibiting reliable improvement, reliable deterioration, or treatment non-response. After completing Phase I, between 33.3% and 61.9% of participants exhibited reliable improvement in maladaptive grief reactions across grief domains using both scoring systems. Further, 50.0% exhibited reliable improvement in PTSD symptoms, and 35.7% exhibited reliable improvement in depressive symptoms. Overall, 83.3% of youth exhibited reliable improvement in at least one outcome, and 73.8% exhibited reliable improvement in at least one grief domain. Reliable deterioration was rare, with either 0.0% ($n = 0$, Separation Distress, Circumstance-Related Distress), 2.4% ($n = 1$, Existential/Identity Distress) or 4.8% ($n = 2$, PTSD symptoms, depressive symptoms) of participants reporting reliable deterioration following completion of Phase I.

MGT Phase II Evaluation

After completing Phase I, selected youth whose symptoms remained elevated based on the T2 assessment battery were invited to continue MGT by completing Phase II. Of the 42 youth who completed Phase I, 12 (28.6%) were deemed to no longer require grief-related services. In contrast, 30 (71.4%) were referred to Phase II, of whom 2 (6.7%) declined to continue with treatment, 6 (20.0%) dropped out prior to completing Phase II, and 22 (73.3%) completed Phase II. Due to invalid response patterns, T3 data are not available for 3 participants who completed Phase II, resulting in a final sample of 19 treatment completers. Completers attended an average of 11.55 Phase II sessions (*SD* 6.24, range 3–28), whereas treatment non-completers completed an average of 4.67 Phase II sessions (*SD* 3.78, range 2–10). Phase II completers and treatment non-completers did not differ significantly on any measured demographic or clinical variables included in this analysis.

Group mean outcomes. Table 1 presents paired samples T-tests comparing youth-reported symptoms from T2 to T3. Analyses of grief reactions consistent with multidimensional grief theory revealed significant reductions in theorized maladaptive grief reactions between T2 and T3 in Separation Distress, ($t(18) = 2.81$, $p = 0.01$, (M_{diff}) = 0.45, 95% CI [0.11, 0.78], Cohen's $d = 0.64$); and Circumstance-Related Distress, ($t(18) = 2.47$, $p = 0.02$, $M_{diff} = 0.36$, 95% CI [0.05, 0.66], $d = 0.57$) both with medium effect sizes. Analyses of grief reactions consistent with PCBD criteria identified significant reductions and medium associated effect sizes for Criterion B, ($t(18) = 2.878$, $p = 0.01$, mean

difference (M_{diff}) = 2.21, 95% CI [0.59, 3.83], Cohen's $d = 0.66$) and Criterion C (t(18) = 2.38, $p = 0.03$, mean difference (M_{diff}) = 3.95, 95% CI [0.46, 7.44], Cohen's $d = 0.55$).Significant reductions and large effect sizes from T2 to T3 among treatment completers were also identified for PTSD symptoms, (t(17) = 3.80, $p = 0.001$, $M_{diff} = 11.22$; 95% CI [5.00, 17.45], $d = 0.90$) and depressive symptoms, (t(17) = 3.33, $p = 0.004$, $M_{diff} = 2.78$, 95% CI [1.02, 4.54], $d = 0.78$). No significant difference was found between T2 and T3 in Existential/Identity Distress scores.

Individual case outcomes. RCIs were then calculated by contrasting the T2 and T3 scores of the 19 youth who completed Phase II and had T3 data. Table 3 provides the number and percentage of participants reporting reliable improvement, reliable deterioration, or treatment non-response. Analyses revealed that 38.9% exhibited reliable improvement in PTSD symptoms, between 15.8 and 26.3% of participants exhibited reliable improvement in maladaptive grief reactions across domains, and 16.7% exhibited reliable improvement in depressive symptoms. Overall, 47.4% of youth exhibited reliable improvement in at least one outcome, which in every case included at least one grief domain (scored using either method). As before, reliable deterioration following Phase II was rare, with 0% reporting reliable deterioration in PTSD symptoms and depressive symptoms, 5.3% ($n = 1$) in Separation Distress, Existential/Identity Distress, and PCBD Criterion C, and 5.3% ($n = 1$) in Circumstance-Related Distress.

Discussion

The present study was a pilot open trial of MGT—a novel, theoretically grounded, assessment-driven intervention designed to reduce maladaptive grief reactions, PTSD symptoms, and depressive symptoms among bereaved children and adolescents.

Group mean analyses revealed that completion of Phase I, which consists of grief psychoeducation, skill-building, and managing loss and trauma reminders, was associated with significant reductions in Separation Distress, Existential/Identify Distress, Circumstance-Related Distress, PCBD Criterion B and C scores, PTSD symptoms, and depressive symptoms, with very large average effect sizes. Individual case-level analyses revealed that youth who completed Phase I reported significant reductions in maladaptive grief scores, with reliable improvement rates ranging from 33 to 62% across grief subscales. Baseline-to-T2 reliable improvement rates were similar with respect to PTSD symptoms and depressive symptoms, ranging from 36 to 50% of youth reporting reliable improvement. Approximately 25% of youth who completed Phase I improved sufficiently that additional grief-related services were not recommended.

For those youth referred to the loss narrative work of Phase II, significant mean reductions were found in Separation Distress, Circumstance-Related Distress, PTSD symptoms, and depressive symptoms. Only Existential/Identity Distress did not show significant reductions across Phase II. This may indicate that the loss narrative, the focus of Phase II, did not substantially address Existential/Identity Distress above and beyond the impact of the Phase I treatment sessions or that the study was underpowered to detect the incremental impact of Phase II on Existential/Identity Distress. Alternatively, this could indicate the presence of moderating factors, such as age, which would disguise an overall treatment effect. Individual case-level analyses revealed that of those youth who completed Phase II, one in three reported reliable improvements in PTSD symptom scores.

Taken together, the results of this pilot study point to the conclusion that Phase I of MGT is a promising treatment for reducing maladaptive grief reactions, PTSD symptoms, and depressive symptoms among bereaved youth. Further, consistent with the phasic design of MGT, approximately 25% of youth exhibited sufficient improvement following Phase I that Phase II was not clinically recommended. Initial evidence also indicates that Phase II of MGT resulted in significant improvements in several outcomes beyond those observed after Phase I, including grief scores, although the evidence suggests that Phase II may be especially useful in reducing PTSD symptoms. This finding is consistent with the narrative structure of Phase II, which involves therapeutically processing the tragic and traumatic circumstances of the death—practice elements typically used in trauma-focused therapies to reduce posttraumatic stress symptoms (e.g., GTI, Salloum and Overstreet 2008; TGCTA, Layne et al. 2008, 2017; Saltzman et al. 2017; and TF-CBT, Cohen et al. 2004, 2006).

Of note, of the 65 youth who met criteria for treatment, 42 (64%) completed Phase I, an attrition rate of 36%. A lower rate of attrition occurred during Phase II; 73% of youth who began Phase II completed treatment. These rates of attrition are roughly comparable to other cognitive-behavioral treatments. For example, a meta-analysis of psychotherapy for PTSD reported completion rates of 67.0 to 88.7% across studies (Bradley et al. 2005), placing attrition between 11 and 33%. However, individual studies have reported higher rates of attrition among cognitive-behavioral therapy clients more generally (43.8%; Bados et al. 2007); these higher rates appear to be more typical of community mental health centers (Bados et al. 2007). The issue of premature termination from treatment and general treatment attrition has been previously noted, particularly in child trauma-focused treatments (Wamser-Nanney and Steinzor 2017). Thus, the rate of attrition in the present study appears to be similar to what has been reported in community mental health clinics.

Rates of reliable improvement on at least one primary outcome variable were 83.3% in Phase I and 42.1% in Phase II, respectively. In a 2008 randomized controlled trial of *Trauma and Grief Component Therapy for Adolescents*, Layne and colleagues reported reliable pre-to-post treatment improvement in PTSD symptoms scores of 58%, and reliable pre-treatment to-follow-up improvement for 81% of youth. In other studies, 60%–71% of youth exhibited reliable improvement in PTSD symptoms after participating in the *Grief and Trauma Intervention* (Salloum and Overstreet 2012), and *Grief Help* showed similar rates of reliable improvement, with 60% of youth exhibiting reliable improvement in either grief or PTSD symptoms at follow-up (Spuij et al. 2015). Thus, rates of reliable improvement in the present study appear to be as good as, or better than, those reported by other grief-focused interventions.

Study Strengths, Limitations, and Future Directions

This pilot open-trial study is the first to evaluate outcomes associated with MGT—a flexible, assessment-driven intervention comprised of two phases. Our finding of statistically significant effects on each of the three primary outcomes (maladaptive grief, PTSD, and depression symptoms) across both phases provide initial support for this phasic structure. Additional study strengths included the use of a grief-focused treatment derived from a developmentally-informed grief theory; a phasic, assessment-driven treatment approach; and a youth sample diverse in age, race/ethnicity, and characteristics of the loss. Last, this study scored and analyzed the PCBD Checklist according to two alternative methods—one based in multidimensional grief theory (thereby aligning with core theoretical propositions undergirding MGT), and the other based on DSM-5 provisional PCBD criteria. Although redundant, these dual scoring methods—and the significant effects each produced—provides preliminary evidence of the flexibility and clinical utility of PCBD as a diagnostic construct, the measure used, and MGT as a treatment. These dual methods and findings also position this study to contribute to the broader ongoing dialogue regarding the essential features, clinical manifestations, and responsiveness to treatment of PCBD (Boelen et al. 2018; Geronazzo-Alman et al. 2019; Lenferink et al. 2018).

Study limitations included: (a) the use of a sample of clinic-referred youth seeking services for bereavement-related concerns, which limits the generalizability of these findings to bereaved youth not seeking counseling or psychological services. (b) The use of a pilot open trial study design did not include a control group, precluding causal inference and the ability to rule out non-treatment effects as alternative sources of therapeutic change. Of note, at T1 the average time since the focal death was 16.29 months, indicating that, for most participants, symptoms had persisted for a substantial period following the death. Even so, it is possible that reductions in maladaptive grief symptoms occurred as part of a natural course of grief; future studies will need to include a control group to account for this possibility. (c) A lack of follow-up assessment precludes the study of the duration of potential treatment effects, including delayed treatment effects. (d) A limited set of study measures prevented investigation of other variables of interest, including improvements in adaptive grieving over the course of treatment, functioning, logistical challenges to treatment completion, and candidate mechanisms of therapeutic change.

Future research into MGT should include measures of parent-reported (e.g., Salloum and Overstreet 2012) and clinician-reported outcomes, satisfaction and acceptability of MGT, adaptive grief reactions, functioning in developmentally salient domains, and prosocial behavior. Future research should also include the use of larger samples, randomized trial designs, and post-treatment follow-up assessments. Future studies of MGT would also benefit from examining candidate mechanisms of therapeutic change, such as modifications in cognitions, enhanced coping skills, and parental facilitation of grieving, to identify ways in which different practice elements may assist in reducing distinct dimensions of grief.

Acknowledgements This research was supported by grants from the Substance Abuse and Mental Health Service Administration (SM-16008 and SM-062111), both given to J.K.

Author Contributions R.M.H.: Completed the data analysis and prepared the initial and revised manuscript draft. B.O.: Assisted with data analysis and data preparation. C.M.L.: Collaborated with writing the manuscript. E.R.: Assisted with the writing and preparation of the manuscript. S.Y.: Assisted with execution of the study. RSP: Collaborated in editing the manuscript. J.B.K.: Designed and executed the study; collaborated in the writing and editing of the manuscript.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in this study were in accordance with the ethical standards of the institutional review board and with the 1964 Helsinki Declaration. The Baylor College of Medicine IRB approved this study.

Informed Consent Informed consent/assent was obtained from all individual participants included in this study.

References

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders.* 5th edn. Arlington, VA: Author.

Angold, A., Costello, E. J., Messer, S. C., & Pickles, A. (1995). Development of a short questionnaire for use in epidemiological studies of depression in children and adolescents. *International Journal of Methods in Psychiatric Research*, *5*(4), 237–249.

Ayers, T. S., Wolchik, S. A., Sandler, I. N., Twohey, J. L., Weyer, J. L., Padgett-Jones, S., & Kriege, G. (2014). The family bereavement program: Description of a theory-based prevention program for parentally-bereaved children and adolescents. *OMEGA—Journal of Death and Dying*, *68*(4), 293–314.

Bados, A., Balaguer, G., & Saldaña, C. (2007). The efficacy of cognitive–behavioral therapy and the problem of drop-out. *Journal of Clinical Psychology*, *63*(6), 585–592.

Berg, L., Rostila, M., & Hjern, A. (2016). Parental death during childhood and depression in young adults—a national cohort study. *Journal of Child Psychology and Psychiatry*, *57*(9), 1092–1098.

Boelen, P., Lenferink, L., Nickerson, A., & Smid, G., Clinical Psychology and Experimental Psychopathology (2018). Evaluation of the factor structure, prevalence, and validity of disturbed grief in DSM-5 and ICD-11. *Journal of Affective Disorders*, *240*, 79–97.

Boelen, P. A., van den Hout, Marcel, A., & van den Bout, J. (2006). A cognitive-behavioral conceptualization of complicated grief. *Clinical Psychology: Science and Practice*, *13*(2), 109–128.

Bradley, R., Greene, J., Russ, E., Dutra, L., & Westen, D. (2005). A multidimensional meta-analysis of psychotherapy for PTSD. *American Journal of Psychiatry*, *162*(2), 214–227.

Breslau, N., Peterson, E. L., Poisson, L. M., Schultz, L. R., & Lucia, V. C. (2004). Estimating post-traumatic stress disorder in the community: lifetime perspective and the impact of typical traumatic events. *Psychological Medicine*, *34*(5), 889–898.

Cerel, J., Fristad, M. A., Verducci, J., Weller, R. A., & Weller, E. B. (2006). Childhood bereavement: psychopathology in the 2 years postparental death. *Journal of the American Academy of Child & Adolescent Psychiatry*, *45*(6), 681–690.

Clark, D. C., Pynoos, R. S., & Goebel, A. E. (1994). *Mechanisms and processes of adolescent bereavement*. New York, NY: Cambridge University Press.

Claycomb, M. A., Charak, R., Kaplow, J., Layne, C. M., Pynoos, R., & Elhai, J. D. (2016). Persistent complex bereavement disorder symptom domains relate differentially to PTSD and depression: A study of war-exposed Bosnian adolescents. *Journal of Abnormal Child Psychology*, *44*(7), 1361–1373.

Cohen, J. (1969). *Statistical power analysis for the behavioral sciences*. San Diego, CA: Academic Press.

Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2017). *Treating trauma and traumatic grief in children and adolescents.* 2nd edn. New York, NY: Guilford Publications.

Cohen, J. A., Mannarino, A. P., & Knudsen, K. (2004). Treating childhood traumatic grief: a pilot study. *Journal of the American Academy of Child & Adolescent Psychiatry*, *43*(10), 1225–1233.

Cohen, J. A., Mannarino, A. P., & Staron, V. R. (2006). A pilot study of modified cognitive-behavioral therapy for childhood traumatic grief (CBT-CTG). *Journal of the American Academy of Child & Adolescent Psychiatry*, *45*(12), 1465–1473.

Dillen, L., Fontaine, J. R. J., & Verhofstadt-Denève, L. (2009). Confirming the distinctiveness of complicated grief from depression and anxiety among adolescents. *Death Studies*, *33*(5), 437–461.

Elhai, J. D., Layne, C. M., Steinberg, A. M., Brymer, M. J., Briggs, E. C., Ostrowski, S. A., & Pynoos, R. S. (2013). Psychometric properties of the UCLA PTSD reaction index. Part II: Investigating factor structure findings in a national clinic-referred youth sample. *Journal of Traumatic Stress*, *26*(1), 10–18.

Geronazzo-Alman, L., Fan, B., Duarte, C. S., Layne, C. M., Wicks, J., Guffanti, G., & Hoven, C. W. (2019). The distinctiveness of grief, depression, and posttraumatic stress: lessons from children after 9/11. *Journal of the American Academy of Child & Adolescent Psychiatry.* https://doi.org/10.1016/j.jaac.2018.12.012, in press.

Goenjian, A. K., Karayan, I., Pynoos, R. S., Minassian, D., Najarian, L. M., Steinberg, A. M., & Fairbanks, L. A. (1997). Outcome of psychotherapy among early adolescents after trauma. *American Journal of Psychiatry*, *154*(4), 536–542.

Grassetti, S. N., Herres, J., Williamson, A. A., Yarger, H. A., Layne, C. M., & Kobak, R. (2015). Narrative focus predicts symptom change trajectories in group treatment for traumatized and bereaved adolescents. *Journal of Clinical Child & Adolescent Psychology*, *44*(6), 933–941.

Guldin, M., Li, J., Pedersen, H. S., Obel, C., Agerbo, E., Gissler, M., & Vestergaard, M. (2015). Incidence of suicide among persons who had a parent who died during their childhood: A population-based cohort study. *JAMA Psychiatry*, *72*(12), 1227–1234.

Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, *59*(1), 12–19.

Kaplow, J. B., Howell, K. H., & Layne, C. M. (2014). Do circumstances of the death matter? Identifying socioenvironmental risks for grief-related psychopathology in bereaved youth. *Journal of Traumatic Stress*, *27*(1), 42–49.

Kaplow, J. B., Layne, C. M., Oosterhoff, B., Goldenthal, H., Howell, K. H., Wamser-Nanney, R., & Pynoos, R. (2018). Validation of the persistent complex bereavement disorder (PCBD) checklist: A developmentally informed assessment tool for bereaved youth. *Journal of Traumatic Stress*, *31*(2), 244–254.

Kaplow, J. B., Layne, C. M., & Pynoos, R. S. (2019a). Persistent complex bereavement disorder. In M. Prinstein, E. Youngstrom, E. Mash, & R. Barkley (eds). *Treatment of disorders in children and adolescence*. 4th edn. New York, NY: Guilford.

Kaplow, J. B., Layne, C. M., Pynoos, R. S., & Saltzman, W. R., (2019b). *Multidimensional grief therapy: A flexible approach to assessing and supporting bereaved youth*. New York: Cambridge University Press, in press.

Kaplow, J. B., Layne, C. M., Saltzman, W. R., Cozza, S. J., & Pynoos, R. S. (2013). Using multidimensional grief theory to explore the effects of deployment, reintegration, and death on military youth and families. *Clinical Child and Family Psychology Review*, *16*(3), 322–340.

Kaplow, J. B., Saunders, J., Angold, A., & Costello, E. J. (2010). Psychiatric symptoms in bereaved versus nonbereaved youth and young adults: a longitudinal epidemiological study. *Journal of the American Academy of Child & Adolescent Psychiatry*, *49*(11), 1145–1154.

Lambert, M. J., & Ogles, B. M. (2009). Using clinical significance in psychotherapy outcome research: the need for a common procedure and validity data. *Psychotherapy Research*, *19*(4–5), 493–501.

Layne, C. M., Kaplow, J. B., Oosterhoff, B., Hill, R., & Pynoos, R. S. (2017). The interplay between posttraumatic stress and grief reactions in traumatically bereaved adolescents: When trauma, bereavement, and adolescence converge. *Adolescent Psychiatry*, *7*, 220–239.

Layne, C. M., Kaplow, J. B., & Pynoos, R. S. (2014). *Persistent complex bereavement disorder (PCBD) checklist—Youth version 1.0*. Los Angeles, CA: University of California, Los Angeles

Layne, C. M., Pynoos, R. S., Saltzman, W. R., Arslanagić, B., Savjak, N., Popović, T., & Houston, R. (2001). Trauma/grief-focused group psychotherapy: School-based postwar intervention with traumatized Bosnian adolescents. *Group Dynamics: Theory, Research, and Practice*, *5*(4), 277–290.

Layne, C. M., Saltzman, W. R., Poppleton, L., Burlingame, G. M., Pašalić, A., Duraković, E., & Steinberg, A. M. (2008). Effectiveness of a school-based group psychotherapy program for war-exposed adolescents: a randomized controlled trial. *Journal of the American Academy of Child & Adolescent Psychiatry*, *47*(9), 1048–1062.

Lenferink, L., Nickerson, A., de Keijser, J., Smid, G., & Boelen, P. (2018). Trajectories of grief, depression, and posttraumatic stress in disaster-bereaved people. *Depression and Anxiety*. https://doi.org/10.1002/da.22850.

Luecken, L. J., Hagan, M. J., Sandler, I. N., Tein, J., Ayers, T. S., & Wolchik, S. A. (2010). Cortisol levels six-years after participation in the family bereavement program. *Psychoneuroendocrinology*, *35*(5), 785–789.

Maciejewski, P., Maercker, A., Boelen, P., & Prigerson, H. (2016). "Prolonged grief disorder" and "persistent complex bereavement disorder", but not "complicated grief", are one and the same diagnostic entity: An analysis of data from the Yale Bereavement Study. *World Psychiatry*, *15*(3), 266–275.

Melhem, N. M., Moritz, G., Walker, M., Shear, M. K., & Brent, D. (2007). Phenomenology and correlates of complicated grief in children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, *46*(4), 493–499.

Melhem, N. M., Porta, G., Shamseddeen, W., Walker Payne, M., & Brent, D. A. (2011). Grief in children and adolescents bereaved by sudden parental death. *Archives of General Psychiatry*, *68*(9), 911–919.

Melhem, N. M., Walker, M., Moritz, G., & Brent, D. A. (2008). Antecedents and sequelae of sudden parental death in offspring and surviving caregivers. *Archives of Pediatrics & Adolescent Medicine*, *162*(5), 403–410.

O'Donnell, K., Dorsey, S., Gong, W., Ostermann, J., Whetten, R., Cohen, J. A., & Whetten, K. (2014). Treating maladaptive grief and posttraumatic stress symptoms in orphaned children in Tanzania: Group-based trauma-focused cognitive–behavioral therapy. *Journal of Traumatic Stress*, *27*(6), 664–671.

Oosterhoff, B., Kaplow, J. B., & Layne, C. M. (2018). Links between bereavement due to sudden death and academic functioning: Results from a nationally representative sample of adolescents. *School Psychology Quarterly, 33*(3), 372–380. https://doi.org/10.1037/spq0000254.

Pham, S., Porta, G., Biernesser, C., Walker Payne, M., Iyengar, S., Melhem, N., & Brent, D. (2018). The burden of bereavement: Early-onset depression and impairment in youths bereaved by sudden parental death in a 7-year prospective study. *American Journal of Psychiatry*, *175*(9), 887–896.

Pynoos, R. S., Steinberg, A. M., Layne, C. M., Liang, L., Vivrette, R. L., Briggs, E. C., & Fairbank, J. A. (2014). Modeling constellations of trauma exposure in the national child traumatic stress network core data set*Psychological Trauma: Theory, Research, Practice, and Policy*, *6*(Suppl 1), S9–S17.

Rolon-Arroyo, B., Rooney, E., Kaplow, J. B., Calhoun, K., Layne, C. M., Steinberg, A., & Pynoos, R. (2017). *Psychometric properties of the UCLA PTSD Reaction Index for DSM-5 (RI-5): identifying clinically significant PTSD in culturally diverse youth*. Poster presented at the Annual Meeting of the International Society for Trau matic Stress Studies, Chicago, IL.

Salloum, A. (2008). Group therapy for children after homicide and violence: A pilot study. *Research on Social Work Practice*, *18*(3), 198–211.

Salloum, A., & Overstreet, S. (2008). Evaluation of individual and group grief and trauma interventions for children post disaster. *Journal of Clinical Child & Adolescent Psychology*, *37*(3), 495–507.

Salloum, A., & Overstreet, S. (2012). Grief and trauma intervention for children after disaster: Exploring coping skills versus trauma narration. *Behaviour Research and Therapy*, *50*(3), 169–179.

Saltzman, W., Layne, C., Pynoos, R., Olafson, E., Kaplow, J., & Boat, B. (2017). *Trauma and grief component therapy for adolescents: a modular approach to treating traumatized and bereaved youth*. New York, NY: Cambridge University Press.

Saltzman, W. R., Pynoos, R. S., Layne, C. M., Steinberg, A. M., & Aisenberg, E. (2001). Trauma- and grief-focused intervention for adolescents exposed to community violence: Results of a school-based screening and group treatment protocol. *Group Dynamics: Theory, Research, and Practice*, *5*(4), 291–303.

Sandler, I., Ayers, T. S., Tein, J., Wolchik, S., Millsap, R., Khoo, S. T., & Coxe, S. (2010). Six-year follow-up of a preventive intervention for parentally bereaved youths: A randomized controlled trial. *Archives of Pediatrics & Adolescent Medicine*, *164*(10), 907–914.

Sandler, I. N., Ayers, T. S., Wolchik, S. A., Tein, J., Kwok, O., Haine, R. A., & Griffin, W. A. (2003). The family bereavement program: Efficacy evaluation of a theory-based prevention program for parentally bereaved children and adolescents. *Journal of Consulting and Clinical Psychology*, *71*(3), 587–600.

Sandler, I. N., Ma, Y., Tein, J., Ayers, T. S., Wolchik, S., Kennedy, C., & Millsap, R. (2010). Long-term effects of the family bereavement program on multiple indicators of grief in parentally bereaved children and adolescents. *Journal of Consulting and Clinical Psychology*, *78*(2), 131–143.

Sandler, I., Tein, J., Wolchik, S., & Ayers, T. S. (2016). The effects of the family bereavement program to reduce suicide ideation and/or attempts of parentally bereaved children six and fifteen years later. *Suicide & Life-Threatening Behavior*, *46*(Suppl 1(2)), S32–S38.

Sandler, I. N., Wolchik, S. A., Ayers, T. S., Tein, J., & Luecken, L. (2013). Family bereavement program (FBP) approach to promoting resilience following the death of a parent. *Family Science*, *4*(1), 87–94.

Shapiro, D. N., Howell, K. H., & Kaplow, J. B. (2014). Associations among mother-child communication quality, childhood maladaptive grief, and depressive symptoms. *Death Studies*, *38*(1–5), 172–178.

Spuij, M., van Londen-Huiberts, A., & Boelen, P. A. (2013). Cognitive-behavioral therapy for prolonged grief in children: Feasibility and multiple baseline study. *Cognitive and Behavioral Practice*, *20*(3), 349–361.

Spuij, M., Dekovic, M., & Boelen, P. A. (2015). An open trial of 'grief-help': cognitive–behavioural treatment for prolonged grief in children and adolescents.*Clinical Psychology & Psychotherapy*, *22*(2), 185–192.

Spuij, M., Prinzie, P., Zijderlaan, J., Stikkelbroek, Y., Dillen, L., Roos, C., & Boelen, P. A. (2012). Psychometric properties of the Dutch inventories of prolonged grief for children and adolescents.*Clinical Psychology & Psychotherapy*, *19*(6), 540–551.

Tabachnick, B. G. & Fidell, L. S. (2013). *Using multivariate statistics.* 6th edn. Boston, MA: Pearson.

Thapar, A., & McGuffin, P. (1998). Validity of the shortened mood and feelings questionnaire in a community sample of children and adolescents: A preliminary research note. *Psychiatry Research*, *81*(2), 259–268.

Tingey, R., Lambert, M., Burlingame, G., & Hansen, N. (1996). Assessing clinical significance: Proposed extensions to method. *Psychotherapy Research*, *6*(2), 109–123.

UN Children's Fund (UNICEF) (2013). *UNICEF Annual Report 2012.* ISBN:978-92-806-4693-1, http://www.refworld.org/docid/51ee31214.html. Accessed 3 Aug 2018.

Wamser-Nanney, R., & Steinzor, C. E. (2017). Factors related to attrition from trauma-focused cognitive-behavioral therapy. *Child Abuse & Neglect*, *66*, 73–83.

Wardecker, B. M., Kaplow, J. B., Layne, C. M., & Edelstein, R. S. (2017). Caregivers' positive emotional expression and children's psychological functioning after parental loss. *Journal of Child and Family Studies*, *26*(12), 3490–3501.