Complicated Grief in Older Adults: A Randomized Controlled Trial of Complicated Grief Group Therapy

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Purpose: This study compared the efficacy of complicated grief therapy (CGT; Shear, K. [2003]. *Complicated grief: A guidebook for therapists* [Liberty Version]. New York State Office of Mental Heath; Shear, K., Frank, E., Houck, P. R., & Reynolds, C. F. 3rd [2005]. Treatment of complicated grief: A randomized controlled trial. *The Journal of the American Medical Association, 293,* 2601–2608) administered as group therapy (CGGT) with standard group therapy (treatment as usual [TAU]) in older adults presenting with complicated grief (CG). **Methods:** The design was a 2×4, prospective, randomized controlled clinical trial. The independent variable was group type, with 1 group receiving experimental methods based on the work of Shear et al. (Shear, K., Frank, E., Houck, P. R., & Reynolds, C. F. 3rd. [2005]. Treatment of complicated grief: a randomized controlled trial. *The Journal of the American Medical Association, 293,* 2601–2608), CGGT versus. TAU. The dependent variable was treatment response. **Results:** CGGT participants demonstrated higher treatment response than TAU participants. Although participants in both groups showed improvement in CG measures, CGGT participants realized significantly greater improvement. More importantly, when CG was measured on Prolonged Grief Disorder Scale, nearly half of CGGT participants realized clinically significant improvement. All CGGT completers had Brief Grief Questionnaire scores upon follow-up that, had they scored at that level at pretest, would have disqualified them for study enrollment. **Implications:** The high level of clinical significance suggests that CGGT participants were effectively treated for CG. This study offers evidence that CGGT holds promise for treatment of CG in older adults and merits inquiry in other populations.

Key Words: Complicated grief, Group therapy

Complicated grief (CG) is a distressing psychological condition with negative health and life quality consequences (Prigerson et al., 2008). Among older adults, CG is under diagnosed, minimized as a factor affecting mental health and function, and undertreated (Boelen & van den Bout, 2005; Ott, Lueger, Kelber, & Prigerson, 2007). Although the bereavement experience of older adults has been associated with less mourning (Parkes, 2007), secondary consequences such as social isolation may lead to grief of longer duration and poorer health and mental health outcomes than observed in younger persons.

CG disorder is a state of chronic mourning (Zhang, El-Jawahri, & Prigerson, 2006). The hallmark symptom of the disorder is persistent yearning for the deceased (Prigerson et al., 1996, 1999). Prigerson and colleagues have characterized this as "a psychological protest against the reality of loss and a general reluctance to make the

adaptations to life in the absence of the loved one" (Prigerson et al., 2008, p. 170). Persons experiencing CG frequently present with recurrent intrusive thoughts of the person who died, preoccupation with sorrow including ruminative thoughts, excessive bitterness, alienation from previous social relationships, difficulty accepting the death, and perceived purposelessness of life. This symptom disturbance contributes to profound social, occupational, and functional disturbance (Zhang, El-Jawahri, & Prigerson, 2006).

In the community population, estimates of grieving persons who meet criteria for CG range from 7% (Kersting, Brähler, Glaesmer, & Wagner, 2011) to 10%–20% (Middleton, Burnett, Raphael, & Martinek, 1996; Simon et al., 2007). Among persons receiving outpatient psychiatric care, estimates of CG have ranged from 20% (Zisook, 1985) to more than 50%; with 31% having moderate CG and 29% having severe CG (Piper, Ogrodniczuk, Azim, & Weideman, 2001). Older adults grieving the death of a child or spouse have been found to have higher prevalence of CG compared with younger adults (Gurland, 1996; Kinoshita, Sorocco, Gallagher-Thompson, Maddux, & Winstead, 2008; Ott et al., 2007).

The chronicity of CG and its enduring distress have been associated with increased risk of cardiac disease, hypertension, cancer, depression, anxiety, and suicidality (Latham & Prigerson, 2004; Mitchell, Kim, Prigerson, & Mortimer, 2005; Prigerson et al., 1996). Impaired social relationships, higher rates of hospitalization, and poorer quality of life have also been reported among persons with CG (Boelen & van den Bout, 2005; Ott et al., 2007).

Identified predictors of CG include prior loss, traumatic exposure, prior psychiatric disorder, insecure attachment style and quality of the relationship with the deceased (Lobb et al., 2010). A lack of preparedness for the death has been associated with poor bereavement outcome in long-term dementia caregivers studied in the REACH (Resources for Enhancing Alzheimer's Caregiver Health) project and 21.4% of bereaved family caregivers in that study used formal grief supports (Schulz, Boerner, Shear, Zhang, & Gitlin, 2006). In contrast, the CASCADE (Choices, Attitudes and Strategies for Care of Advanced Dementia at End of Life) study found a lower incidence of CG in long-term health care proxies of advanced dementia patients who died in nursing homes, but when present, CG symptoms persisted for longer

duration (Mitchell et al., 2006). In an analysis of the prolonged grief experience of widows in the CLOC (Changing Lives of Older Couples) study, a longitudinal study conducted prior to the determination of CG as a unique condition, Ghesquiere, Shear, and Naihua (2013) found that 29% met criteria for CG.

Conceptual Framework

Current understanding of CG is informed by attachment theory (Ainsworth, Blehar, Waters & Wall, 1978; Bowlby, 1969, 1973, 1980) and dual-process theory (Stroebe and Schut, 1999, 2007).

Attachment theorists have identified the following four major patterns of attachment: secure, avoidant/dismissive, anxious/ambivalent, and disorganized/disoriented. With respect to CG, attachment theorists postulate that secure individuals will express but not become overwhelmed by the painful emotions associated with grieving. Attachment theory suggests that persons with insecure attachment patterns are at risk for CG upon the death of significant persons (Mikulincer & Shaver, 2008). Attachment patterns are further moderated by the quality of the relationship between the grievers and the deceased (Mancini, Robinaugh, Shear & Bonanno, 2009).

In Stroebe and Schut's (1999, 2007) dual-process model of bereavement, grief adjustment consists of three elements, loss orientation (LO), restoration orientation (RO), and oscillation between the two. LO encompasses thoughts and emotions about the death. RO describes what the griever needs to deal with (e.g., loneliness). When a close relationship ends in death, there is both grief for the decedent and necessary adjustments to the substantial changes that are secondary consequences of loss. The dual-process model's third component is oscillation, a cognitive and emotional alternation between LO and RO-coping, whereby the bereaved confronts the loss, alternating with periods of avoiding thoughts of the loss. Dual-process theorists explain complicated bereavement as "an absence of the type of confrontation-avoidance processing (oscillation) that is associated with adjustment" (Stroebe & Schut, 1999, p. 217). Recent work by Shear (2010) has suggested that oscillation may be better understood as an "overlapping" of LO and RO activities. This may account for the value that effective grievers find in distraction and new activities (Bennett, Gibbons, & MacKenzie-Smith, 2010), whereas among complicated grievers,

long-term use of distraction may translate into avoidance that prevents reexperiencing formerly pleasurable activities and relationships in new ways (Shear, 2010).

The relationship between contemporary attachment theory and dual-process theory suggests that persons who have avoidant/dismissive attachments may have a fixed LO and never fully experience the death or the thoughts and emotions of grief. Persons with anxious/ambivalent attachments may grieve with great emotional intensity, but without the ability to do either the grief work of LO or the tasks of RO. Those individuals with disorganized/disoriented attachment may be unable to reconcile the loss of the original or subsequent attachment figure to address the reality of the loss or the tasks of restoration. The complementary elements of attachment and dual-process theories that account for a poor grief experience suggest that persons with insecure attachment histories are less able to navigate the process of grief and are more predisposed to CG.

This suggests that CG interventions must address the relationship quality and attachment status between the griever and the deceased, how memories are interpreted and carried into the present and future and creating a new life without the deceased.

One promising treatment for CG, developed by Shear, Frank, Houck, and Reynolds (2005), is complicated grief therapy (CGT), a manualized treatment protocol applied in individual psychotherapy, involving phases of psychoeducation, application of dual-process (loss and restoration) approaches, focused attention on trauma-like symptoms, revisiting of the relationship with the deceased, and planning for the future. The study by Shear compared CGT with interpersonal psychotherapy among older adult outpatient psychiatric clinic patients found to meet criteria for CG. Findings suggested that both treatments significantly reduced symptoms of CG, but the response rate was greater and the time to response was shorter for those receiving CGT.

Rationale for Adapting CGT to Group Therapy Format (Complicated Grief Group Therapy)

Group work is known to provide advantages in psychosocial care including the provision of social support and cost effectiveness, but few randomized controlled clinical trial (RCT) studies have evaluated group therapy interventions for CG. Yalom and Leszcz (2005) have described the following therapeutic advantages of group work, which distinguish it from other treatment modalities: Group therapy instills hope, acknowledges universality to the psychological experience, imparts information, generates altruism, permits corrective recapitulation of (the) family group, provides opportunity for socialization, fosters appropriate imitative behavior, promotes interpersonal learning, creates group cohesiveness, provides safe catharsis, and attends to existential factors in the human experience. In the case of groups serving clients with a history of "trauma," Yalom and Leszcz (2005) emphasize the importance of establishing safety, trust, and security, being with others having similar "trauma," providing psychoeducation to reduce isolation, and having specific interventions for "trauma."

With respect to the unique needs of grieving persons, group therapy can provide emotional support in the face of loss, bring grieving persons together in a comfortable setting to reduce isolation, foster relationships, and create common bonds. Groups also provide a forum for sharing experiences, listening and learning, the development of effective coping skills, and provide opportunity for suffering persons to not only gain support but also provide help and support to others. Beyond these qualities of groups, many of which are present in traditional support groups, we expected that group psychotherapy would be an especially suitable application of CGT, in that older adults with CG would benefit from a shared experience of unresolved grief, reduction in social isolation, mutual support in goal setting and goal attainment, and mutual encouragement as difficult avoidance behaviors and relationship issues are addressed.

The purpose of this study was to compare the efficacy of CGT (Shear, 2003; Shear et al., 2005) administered as group therapy (complicated grief group therapy [CGGT]) with standard group therapy (treatment as usual [TAU]) in older adults presenting with CG.

Methods

Study Design

The study design was a 2 × 4, prospective, RCT. The independent variable was group type and the dependent variable was treatment response, measured as change in scores on Prolonged Grief

Disorder Scale (PG-13; Prigerson & Maciejewski, 2009), the Brief Grief Questionnaire (BGQ; Shear & Essock, 2002), and the Clinical Global Impressions Scales (CGI; Guy, 1976).

Power analysis (Faul, Erdfelder, Lang, & Buchner, 2007) indicated a sample size of 26 was required to perform primary analyses of treatment effect (two-way repeated-measures analysis of variance [RM ANOVA]), with a priori effect size = .25, power .90. Because attrition in clinical intervention studies frequently exceeds 30% of the sample (White et al., 2010), 55 persons were recruited to achieve a sufficient pool of participants.

Participants

Fifty-five prospective participants, aged 60 or older, with reported death of significant family member/friend more than 6 months prior to recruitment responded to advertisements developed according to University of Utah Institutional Review Board guidelines. Recruitment procedures included announcement dissemination through the *Caring Connections: A Hope and Comfort in Grief Program* listserv and *University of Utah* Health Center postings. Four factors would have excluded individuals from participating: active suicidality, active substance abuse, positive dementia screen, or pending lawsuit related to the death, but no prospective participants were excluded for these reasons. Those meeting screening criteria (minimum score of 5) on the BGQ conducted by telephone were offered an opportunity to participate (*n* = 49). An additional 10 persons were not able to participate at the scheduled group time. The remaining 39 individuals were mailed two copies of the approved Informed Consent document. Potential participants who returned the completed consent document were randomly assigned to the control or experimental group.

Cohort 1 recruitment began in January 2011 and the groups began in March 2011 and concluded in June 2011 as Cohort 2 recruitment began. Cohort 1 was posttested at 6-week follow-up in August 2011. In May 2011, two prospective participants requested enrollment and were screened; one did not pursue the study due to work conflict; the second was enrolled, pretested in May, and reassessed with Cohort 2. Cohort 2 was screened, enrolled, and preassessed in July and August 2011; the groups began in August 2011 and ended in November 2011 and 6-week follow-up of Cohort 2 occurred in January 2012.

Setting

All research activity was conducted in the Simulation Learning Center (SLC) of the University of Utah College of Nursing. Study groups were conducted in a debriefing room equipped similarly to rooms that serve as the real-life setting for *Caring Connections* grief support group sessions. This conference room optimized the balance between experimental control and ecological validity, replicating the "real-world" of a therapy group environment within the laboratory setting. One camera and two microphones were discreetly mounted in the ceiling.

Study Measures

Complicated Grief.—The BGQ (Shear & Essock, 2002) is a 5-item Likert scale self-report of the presence of grief symptoms reported as "not at all" to "a lot." Possible scores range from 0 to 10; a total score of 5 or more is positive for CG. The BGQ has a high reported reliability (Cronbach's $\alpha = 0.75$) and a high discriminant validity (average extracted variance value of .39) (Ito et al., 2012). This instrument was used for the initial screening of participants upon intake, and repeated at 6-week follow-up for completers or upon termination for noncompleters.

The PG-13 is the current version of the Inventory of Complicated Grief Scale (ICG-R, Prigerson & Maciejewski, 2009; Prigerson et al., 2001), a 13-item assessment of the nine identified symptoms indicative of prolonged grief disorder or CG. Items describe an emotional, cognitive, or behavioral state associated with CG. The diagnosis of CG requires two "separation distress" symptoms (either yearning, intrusive thoughts of the deceased or pangs of separation distress), and five of the following nine symptoms experienced at least once per day: feeling emotionally numb, feeling shocked, feeling that life is meaningless, role confusion, mistrust of others, difficulty accepting the loss, avoidance of the reality of the loss, bitterness, and difficulty moving on with life. Identified symptoms must be associated with functional and social impairment and must have been present for at least 6 months. Respondents rate the frequency with which they experience each item on a 5-point Likert scale, ranging from "not at all" to "several times/day," or, "not at all" to "overwhelmingly." The total score is a sum of scores ranging from 11 to 55. The PG-13 has a demonstrated association with severity of depressive symptoms and a general measure of grief suggesting a valid, yet distinct,

assessment of emotional distress (Prigerson & Maciejewski, 2009; Prigerson et al., 2008). The PG-13 has high internal consistency (Cronbach's α = 0.94) and test–retest reliabilities (.80), and demonstrated internal consistency and convergent and criterion validity. For this study, inclusion score = positive response to Item 1 or 2, positive response to Items 3 and 13, and a score of 20 or greater on Items 4–12. Psychometric evaluation of the PG-13 continues in Prigerson's research team, and the validity and reliability indicators to date meet or exceed the ICG-R performance levels (H. G. Prigerson, personal communications, July 13, 2010; May 7, 2012).

Depression.—The Beck Depression Inventory—second edition (BDI-II; Beck, Brown, Steer, Eidelson & Riskind, 1987) is a self-administered tool for screening and assessing the severity of depression. Twenty-one items assess the intensity of depression in diagnosed patients as well as detect possible depression in normal population. Each item is a list of four statements arranged in increasing severity about a particular symptom of depression. Most items on the BDI-II are rated on a 4-point scale ranging from 0 to 3. The BDI-II is scored by adding the ratings for the 21 items, with a maximum total score of 63. The BDI-II has demonstrated reliability, with internal consistency (Cronbach's alpha) of 0.92 for clinical patients and 0.93 for nonclinical individuals and test–retest reliability of .93. The determination of concurrent validity, two comparisons between BDI-II and its previous version resulted in correlations of 0.93 and 0.84.

Anxiety.—The Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988) is a 21-item scale that measures the severity of self-reported anxiety in adults and adolescents. It consists of descriptive statements of anxiety symptoms, which are rated on a 4-point scale with the following correspondence: *Not at all* (0 points); *Mildly; it did not bother me much* (1); *Moderately; it was very unpleasant, but I could stand it* (2); and *Severely; I could barely stand it* (3). The BAI total score is the sum of the ratings for the 21 symptoms. Each symptom is rated on a 4-point scale ranging from 0 to 3. The maximum score is 63 points. The BAI has reported reliability for internal consistency, Cronbach's alpha, ranged from 0.92 to 0.94 for adults. The Cronbach's alpha for the Diagnostic and Statistical Manual of Mental Disorders, Third

Edition—Revised (DSM-III-R) anxiety disorder groups ranged from .85 to .93. Test–retest reliability (1-week interval) was reported at .75. Concurrent validity was reported as the correlation with the Hamilton Anxiety Rating Scale-Revised at .51.

Cognitive Impairment.—Mini-Cog™ screen (Borson, Scanlan, Chen, & Ganguli, 2003) combines an uncued three-item recall test with a mid-assessment recall distractor. Score of 0–2 indicates a positive screen for cognitive impairment and would rule out participant from study inclusion. The Mini-Cog has sensitivity ranging from 76% to 99%, and specificity ranging from 89% to 93% with 95% confidence interval. A chi square test reported 234.4 for Alzheimer's dementia and 118.3 for other dementias ($p < .001$). This tool has strong predictive value in multiple clinical settings (Borson et al., 2000; Borson et al., 2003).

Suicide Risk.—The Columbia-Suicide Severity Rating Scale (C-SSRS-Screening version; K. Posner, D. Brent, C. Lucas, M. Gould, B. Stanley, B. Brown, P. Fisher, J. Zelazny, A. Burker, M. Oquendo, & J. Mann, personal communication, July 13, 2010) is a 5-item branching questionnaire that assesses suicidal ideation and behavior. This instrument is now the standard NIMH screen for all clinical trials. The C-SSRS has demonstrated sensitivity, very high predictive, discriminant and convergent validity, and interrater reliability. Positive identification of suicide risk (active ideation) will rule out participant from study inclusion.

Clinical Global Impression Scales.—The Clinical Global Impression Scales (CGI; Guy, 1976) were used to determine individual participant baseline status and weekly change. These scales have been used for the past 30 years in virtually all FDA-regulated and most clinical trials of psychosocial interventions. The CGI scales have demonstrated high levels of validity, .86 to standard measures, and are strongly associated with both self-report (Cronbach's α = 0.62) and clinician administered measures (Cronbach's α = 0.72) of specific symptomatology and impairment across multiple conditions (Busner & Targum, 2007; Zaider et al., 2003). The Clinical Global Impressions-Severity Scale (CGI-S) was used to establish the baseline performance of participants and was rated by facilitators rating on the following 7-point scale: 1 (*normal, not at all ill*), 2 (*borderline mentally ill*),

3 (*mildly ill*), 4 (*moderately ill*), 5 (*markedly ill*). The Clinical Global Impressions-Improvement Scale (CGI-I) was used by facilitators to assess weekly change and is a single Likert-type rating from 1 to 7 where 1 through 3 indicate *very much*, *much*, and *minimally improved*, respectively; 4 indicates *no change*; and 5 through 7 indicate *minimally*, *much*, and *very much worse*, respectively. The CGI-I was also used with noncompleters who participated in at least one treatment session.

Procedures

We reviewed the treatment protocols for CGT as delineated in the Shear Manual (Shear, 2003), modified the protocol for group psychotherapy, and manualized it for this group therapy intervention, CGGT. We adapted the manual for group therapy TAU for a 16-week format, with no modification of content.

Recruiting and Training Evaluation Personnel and Group Facilitators for Both Conditions.— Group facilitators in this study were recruited from the roster of group facilitators serving *Caring Connections a Hope and Comfort in Grief Program* and from the clinical psychotherapist staff in the Valley Mental Health Program, Salt Lake City, Utah. All were masters level licensed mental health providers (two licensed professional counselors and two licensed clinical social workers) with at least 2 years of psychotherapy experience in group work and were authorized to participate in research by the Collaborative IRB Training Initiative. Two were men and two were women. Two clinicians were randomly assigned to each condition, serving as cofacilitators, and were blinded to condition throughout the study. Each facilitator consistently facilitated either the control or experimental grief groups over the course of the two 16-week groups.

To maximize assurance of therapist competence, the first author provided training, ongoing supervision, and continuous monitoring of facilitator activity. Prior to leading groups, the first author trained facilitator pairs in CGGT or TAU, presenting content on theory, relationship-building behaviors, protocol-implementation behaviors, protocol-specific behaviors, and treatment-specific behaviors (Nezu & Nezu, 2008, p. 274). To promote treatment protocol adherence, supervision was conducted following each session immediately after facilitators assessed participants, separately for usual care and CGGT, throughout the study period.

Treatment Conditions.—Grief support groups—TAU condition. This grief support group intervention was a 16-week adaptation of an 8-week grief support group model developed in 2007. Support groups in the established program are facilitated by clinicians and organized by type of loss. As of spring 2012, 1,200 persons had participated in these groups. Although these groups are similar in content and scope to groups conducted in other settings nationwide (Hughes, 1995), the use of clinician facilitators (vs. peer-facilitated or self-help models of care) has enabled the program to serve participants with more distressing grief.

The adapted manual for the TAU grief support groups included session guidelines and goals for the facilitator, and homework for participants in each session. Content areas were expanded from 1 to 2 weeks, and sessions were extended from 90 to 120 min, with no further modification of content or group process.

Complicated grief group therapy. This intervention, which is an adaptation of Shear's *Complicated Grief: A Guidebook for Therapists* (Shear, 2003) for individual grief therapy, was designed to be 16 weeks in length, the median duration of treatment determined as effective in the study of Shear et al. (2005). As in the TAU condition, sessions were 120 min. The intervention included psychoeducation about normal and CG, guided discussion, and five structured activities—"revisiting the story of the death," "identifying and working on personal goals," "inviting a significant other to attend a session," "having an imaginal conversation with the deceased," and "bringing in pictures and memorabilia." Homework was assigned in each session and was closely related to intervention activities. In the first session, participants were taught to assess their grief experience, monitor emotions and activities using structured assessment sheets completed on a daily basis, which were reviewed with facilitators and group members in subsequent sessions. Participant grief status was self-assessed using "subjective units of distress," a self-derived metric benchmarked to each participant's own baseline grief experience. A comparison of the two interventions is presented in Table 1.

Data Collection

Participants were evaluated by independent evaluators; second-year master's social work students blinded to treatment assignment and trained

Table 1. Comparison of CGGT and TAU Interventions

Week	TAU		CGGT	
	Topic	Activities	Topic	Activities
1	What is grief?	Discussion of losses, describe normal grief	The story of the death/symptoms of CG	Death retelling, grief monitoring skills
2	Common responses to loss/myths	Personal experiences in grief/sharing photos and mementoes	Grief-related emotions/setting personal goals	Guided discussion on emotion management and setting goals
3	Individual responses to grief	Sharing what works and doesn't work for participants/introduce journaling	Grief-related emotions/setting personal goals	Guided discussion on emotion management and setting goals
4	Personal goals and expectations	Clarifying personal expectations with grief	Emotion management/activity planning	Cognitive restructuring, guided discussion on grief-related activities
5	Thoughts and feelings	Discussion of common emotions and thoughts	Emotion management/activity planning/discuss supportive others	Cognitive restructuring, guided discussion on utilizing supportive others
6	Managing distressing thoughts and feelings	Practice: ways to think, attribute, time, and respond to feelings and thoughts	Supportive other visits-review of CG, participants self-views and goal setting	Review of CG/elicit perceptions and support of supportive others in attendance
7	Coping skills	Understanding healthy versus unhealthy coping, skills inventory	Supportive other visits-review of CG, participants self-views and goal setting	Review of CG/elicit perceptions and support of supportive others
8	Healthy coping/physical skills	Discussion positive coping tools	Retelling of death story/guided discussion on goal setting	Guided discussion of SO visits/telling the death story/setting goals
9	Relationships: Caring for yourself	Discussion of relationships/self-care strategies	Emotion management/memories and pictures. Review self-care goals	Cognitive restructuring, guided discussion on emotions and memories
10	Relationships: Caring for others	Discussion of relationship goals	Memories/goal setting on future and self-care	Cognitive restructuring, guided discussion
11	Dealing with stress	Discussion of stressors/healthy ways to deal with stress	Retelling of death story/emotion management/goal setting	Cognitive restructuring and guided discussion on the death story
12	Ways to relax	Practice: Deep breathing, deep muscle relaxation, affirmations, meditation	Imaginal conversation with the deceased/goal setting	Guided imaginal conversation with the deceased
14	Ways to remember the person who died	Discussion—personal ways to remember, shared ways to remember the person who died	Memories and pictures/retelling of death story	Cognitive restructuring and guided discussion on the death story
15	Understanding and accepting your new life	Discussion—progress on the grief journey, discussion of life without the deceased. Goal setting	Memories and pictures/self-care and goals for future	Guided discussion to synthesize memories, emotions, and death story
16	Signs of recovery—the new normal life	Review goals for the new life, shared remembrance activity	Memories and pictures/self-care and goals for future	Guided discussion to synthesize memories, emotions and death story. Closure activity

Note. CG = complicated grief; CGGT = complicated grief group therapy; SO = supportive others; TAU = treatment as usual.

in administration of study assessment instruments to assure accuracy and reliability.

Assessment Procedure.—Following informed consent and random assignment of participants, evaluators conducted telephone assessment using the PG-13 (Prigerson & Maciejewski, 2009), and the Beck Inventories for depression (Beck, Brown, Steer, Eidelson, & Riskind, 1987) and anxiety (Beck et al., 1988). The BGQ was used in addition to the PG-13 to provide triangulation of measures. Evaluators also administered The Mini-Cog™ screen-telephone version (Borson, Scanlan, Brush, Vitaliano, & Dokmak, 2000) and C-SSRS (K. Posner, D. Brent, C. Lucas, M. Gould, B. Stanley, B. Brown, P. Fisher, J. Zelazny, A. Burker, M. Oquendo, & J. Mann, personal communication, July 13, 2010) to rule out potential participants having dementia or active suicidality. Participants also answered questions regarding the type of relationship to the decedent, type of death, time since death, use of medications and involvement in other mental health care. All participants were pretested within 4 weeks prior to the start of the groups.

Each group condition included sixteen 120-min treatment sessions. Participants were reassessed using the PG-13, and the anxiety and depression self-report inventories at midpoint (8 weeks), and immediately following the group (16 weeks). Six weeks following conclusion of group, evaluators conducted telephone interviews to reassess participants using the BGQ, the PG- 13, and the depression and anxiety inventories. Medication status and participant well-being were monitored throughout the study. Group facilitators evaluated participants immediately following each session and used the CGI score to indicate change in grief status.

For participants who dropped out after their second treatment session, facilitators provided a CGI score and a brief narrative justifying their rating. Noncompleters also answered the BGQ at termination. Noncompleters who failed to inform study staff of intent to withdraw from the study at a group session were contacted by telephone to assess their reasons for withdrawal and completed the BGQ.

Group Process Procedures.—Twenty-two of the initial 27 potential participants recruited and screened were eligible for inclusion and were randomly assigned to the control group 1 (TAU) condition, $N = 11$, or to the experimental group 1 (CCGT) condition, $N = 11$. These two groups were run concurrently on different weeknights to avoid cross-contamination of conditions and to mitigate history and maturation effects as threats to internal validity. After these groups were completed, the second series of groups were initiated, consisting of the second 17 eligible participants randomly assigned to the control group 2 (TAU) condition $N = 8$, or to the experimental group 2 (CGGT) condition, $N = 9$.

A licensed clinical social worker and a PhD psychiatric nurse practitioner, highly experienced in treatment of persons with CG and otherwise not affiliated with the study, evaluated treatment fidelity to determine if the interventions under study were implemented in a competent manner consistent with the manuals.

Data Analysis

There were two groups in each of the two conditions: Control group—TAU 1 (C_1) and 2 (C_2) and experimental group—CGGT 1 (E_1) and 2 (E_2). Upon completion of data collection, data were entered into SPSS-19. Data from all assessments were prescreened for missing cases and outliers. There were no missing cases and one missing case score. Similarity between the two control groups and the two experimental groups was statistically sufficient, allowing us to collapse C_1 and C_2, and collapse E_1 and E_2 to create C_{tot} ($N = 18$) and E_{tot} ($N = 16$), respectively.

We conducted RM measures ANOVA between C_{tot} and E_{tot} at Time 1 (pretest), Time 2 (8-week midpoint), Time 3 (posttest), and Time 4 (6-week follow-up).

Participant Attrition: Follow-Up to Compare Completers and Noncompleters.—Attrition is a fundamental issue in mental health treatment and in intervention research. Although this negatively affects statistical analysis, it does reflect the reality of the issue under study. In the study by Shear et al. (2005), dropout rates were 27% in CGT condition and 26% for interpersonal psychotherapy (equivalent of TAU) condition, with 10% of participants refusing to participate in some elements of treatment. We addressed attrition by documenting reasons for termination and by obtaining termination CGI and BGQ ratings from facilitators and evaluators in the intention-to-treat subset in both conditions.

Weekly Clinical Progress Scores.—Following each session, group cofacilitators met privately to evaluate each participant's progress using the CGI

scale. We used these ratings to determine individual differences in treatment response (Donaldson & Moinpour, 2002). We used all 16 evaluation points for each individual within each condition to identify and illustrate nuanced change within individuals that is not captured by relying on group means alone. To do this, we converted weekly scores to individual cases and graphed them to illustrate change.

Results

Sample

Twenty-six participants completed the groups, 12 in the CGGT condition and 14 in the TAU condition. The one participant waitlisted was randomized into the second phase of the study following retesting. One participant died between the conclusion of the group and the 6-week follow-up. The posttest BGQ score for that participant is a missing value; the PG-13, BAI, and BDI-II scores were valued according to intention-to-treat principle, using last reported score carried forward to impute missing data from those outcome measures. During the study, three participants were hospitalized, two for elective surgery and one for suicidal ideation; all remained in the study. Two participants had grandchildren born during the study and both endorsed this as a positive life event. There were occasional absences due to vacations, family events, or illness of a family member. For anticipated absences, participants attended the group by conference call, including one participant who had a 2-week rehabilitation in skilled nursing facility. Another participant who moved out of state at midgroup attended by conference call for 2 weeks during her move; then, relocated to a local family member's home to complete the group. Figure 1 summarizes the flow of participants in the study and details participant attrition. Participant
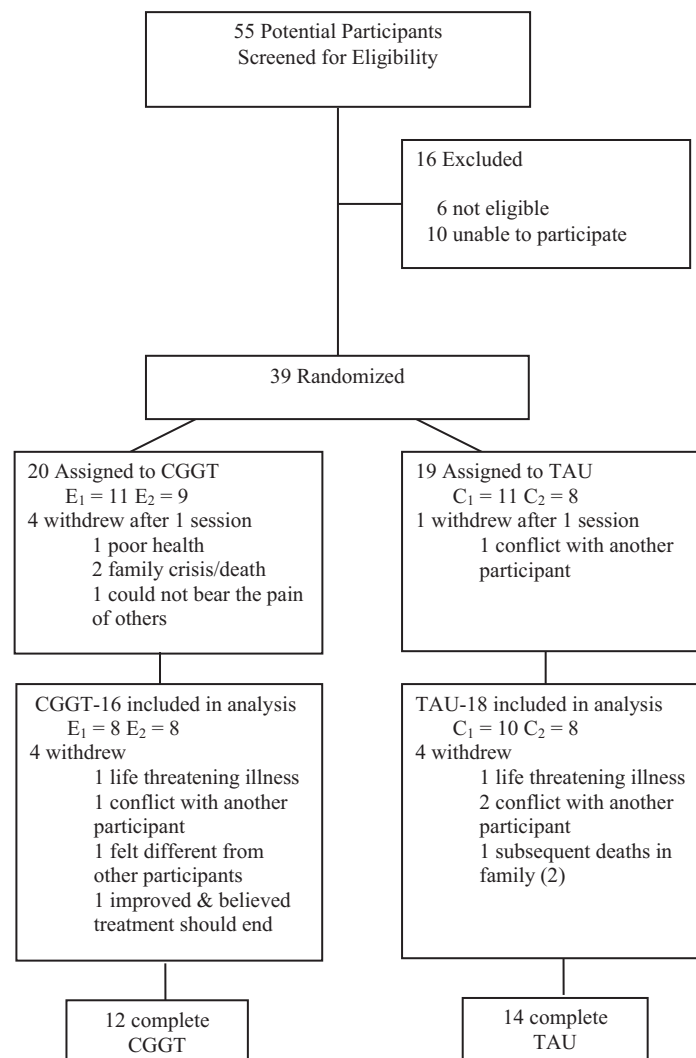

Figure 1. Participant flow in the study.

attrition was 25% for CGGT and 26% for TAU and was accounted for in termination scores on BGQ and facilitator termination CGI scores.

Outcomes

Baseline Measures.—We compared the two group cohorts to assure that the two CGGT groups and the two TAU groups were similar at preintervention assessment, using chi square across categorical measures and independent t tests across continuous measures. Group E_1 had a poorer self-report of health than E_2, $t(14) = 2.47$, $p = .03$, but the groups were otherwise sufficiently similar to collapse C_1 and C_2, and collapse E_1 and E_2 to create TAU C_{tot} ($N = 18$) and CGGT E_{tot} ($N = 16$), respectively. Table 2 shows the pretreatment comparison of the CGGT and TAU groups. The two groups were similar in age, gender, relationship to deceased and time since death. There is some variation by cause of death, with the CGGT group having six suicide deaths and the TAU group having the only homicide death. When deaths were attributed to sudden versus expected death, however, no significant difference was found between the two groups. No significant differences were observed in prior losses that affected grief, self-report of health, use of psychotherapy, use of medications, or substance abuse history. Use of psychotherapy was similar between control and experimental groups, and no participants receiving psychotherapy were in treatment specific to their grief. The TAU group endorsed a higher level of

Table 2. Pretreatment Comparison of Groups on Demographic Variables

	CGGT ($n = 16$)	TAU ($n = 18$)	Chi square or t value	df	p value
Age-mean(SD)	67.9 (7.87)	67.4 (5.98)	0.181	32	.858
Male	4	2	1.12	1	.289
White	16	18	ns		
Relationship to deceased					
Spouse/partner	9	12			
Adult child	1	1			
Sibling	0	1			
Parent	3	4			
Grandchild	2	0			
Other	1	0			
			4.47	5	.484
Time since death					
6–9 months	4	5			
9–12 months	3	1			
12–18 months	4	6			
18–24 months	1	1			
24–36 months	1	2			
>36 months	3	3			
Mean time since death	3.1	3.2	1.73	32	.885
Cause of death					
Chronic illness	6	5			
Acute illness	4	10			
Accident	0	2			
Suicide	6	0			
Homicide	0	1			
			11.59	4	.021
Death expected (yes)	10	8	1.108	1	.292
Prior losses that affect grief (yes)	10	15	1.89	1	.169
Stressors that affect grief (yes)	11	17	3.85	1	.05
Self-report of health (good)	3.06	3.00	0.147	32	.884
Receiving therapy (yes)	10	8	1.11	1	.292
Currently on medication (yes)	8	13	3.04	3	.385
Endorses depression	10	14	0.952	1	.329
Endorses depression within past 5 years	9	11	0.083	1	.774
Substance abuse history (yes)	0	1	0.916	1	.339

Note. CGGT = complicated grief group therapy; TAU = treatment as usual.

life stressors. No significant differences between the groups were found in current depression or depression within the past 5 years.

The CGGT and TAU groups were similar across outcome measures at pretest, as presented in Table 3. On screening BGQ, the CGGT group score was 7.06 and the TAU group score was 7.33. Differences in the BGQ, PG-13, BAI, and BDI-II group scores were nonsignificant. It is noteworthy that the mean anxiety scores on the BAI for both groups are clinically interpreted as "very low anxiety," and the mean depression scores on the BDI-II for both groups are clinically interpreted as "moderate depression."

Comparison of CGGT and TAU on Outcome Measures.—We conducted RM ANOVA to evaluate the effect of the CGGT and TAU interventions on the dependent variables CG (BGQ; at pretest

and follow-up) and on CG (PG-13), anxiety (BAI), and depression (BDI-II) at four intervals: pretest, 8-week midpoint, 16-week posttest, and follow-up 6 weeks after posttest (Table 4).

Change in Complicated Grief.—For CG as measured by PG-13, a RM ANOVA was conducted to evaluate the effect of group assignment on PG-13 at four test intervals. The interaction effect Group × Time was also significant, $\Lambda = .39$, $F = 11.52\ (3, 22)$, $p < .001$. A very large effect size of $\eta = 61$, Cohen's $d = 1.34$ (95% CI = 0.483, 2.187) was found. Four pairwise t tests were conducted to follow up on the significant interaction between groups for each time period using the Bonferroni correction, $\alpha = 0.05/4 = 0.0125$. For the TAU condition, only the Time 1 (pretest) to Time 4 (6-week follow-up) was significant, $t(15) = 4.93$, $p < .0125$. For the CGGT condition, three time intervals were

Table 3. Pretreatment Comparison of Groups on Outcome Measures

Outcome measure	CGGT (*n* = 16), *M* (*SD*)	TAU (*n* = 18), *M* (*SD*)	Chi square or *t* value	*df*	*p* value
BGQ	7.06 (1.29)	7.33 (1.19)	−0.591	32	.559
PG-13	37.13 (6.71)	37.72 (9.64)	−0.207	32	.837
BAI	14.69 (10.88)	16.38 (10.3)	−0.466	32	.644
BDI	23.94 (10.31)	22.11 (11.3)	0.493	32	.625

Note. CGGT = complicated grief group therapy; M = mean; SD = standard deviation; TAU = treatment as usual.

Table 4. Posttreatment Comparison of Groups on Outcome Measures

Outcome measure	Time 1, pretest, *M* (SD)	Time 2, midpoint, *M* (SD)	Time 3, posttest, *M* (SD)	Time 4, follow-up, *M* (SD)	RM ANOVA *F* (df)	*P*	*d* [CI]
BGQ							
CGGT	7.06 (1.29)			3.31 (1.30)			
TAU	7.29 (1.40)			6.53 (1.37)			
					37.92 (1, 31)	.000	2.42 [1.41, 3.34]
PG-13							
CGGT	41.58 (5.42)	35.08 (6.43)	29.33 (10.99)	23.00 (9.02)			
TAU	38.79 (9.46)	35.38 (10.34)	30.14 (7.93)	30.29 (9.37)			
					11.52 (3, 22)	.000	1.34 [0.483, 2.187]
BAI							
CGGT	16.33 (12.11)	15.25 (9.63)	13.75 (11.19)	8.33 (9.17)			
TAU	16.92 (9.73)	12.14 (8.87)	10.21 (9.77)	9.57 (7.80)			
					3.99 (3, 22)	.021	0.786 [−0.014, 1.59]
BDI-II							
CGGT	25.58 (11.38)	20.58 (9.07)	15.75 (8.97)	14.92 (10.66)			
TAU	22.86 (12.16)	19.21 (10.47)	12.29 (10.17)	15.64 (12.81)			
					.784	.516	

Note. BAI = Beck Anxiety Inventory; BDI = Beck Depression Inventory; *BGQ* = Brief Grief Questionnaire; CGGT = complicated grief group therapy; CI = 95% confidence interval; *d* = effect size, Cohen's *d*; M = mean; PG-13 = Prolonged Grief Disorder Scale; SD = standard deviation; TAU = treatment as usual.

significant: Time 1 (pretest) to Time 2 (midpoint), t (11) = 4.02, p < .002; Time 3 (posttest) to Time 4 (follow up), t(11) = 4.41, p < .001; Time 1 (pretest) to Time 4 (follow up), t(11) = 9.08, p < .000. The change in CG as measured by the PG-13 is illustrated in Figure 2. The findings suggest that participants receiving CGGT demonstrated greater treatment response than participants receiving TAU. Although both groups improved to the level of statistical significance, the CGGT group markedly improved. In addition, 5 of 12 participants or 41% of the CGGT group achieved clinically significant improvement, defined as 50% reduction in PG-13 score. None of the 14 TAU participants achieved clinically significant change in CG as measured by PG-13.

To provide triangulation of measures for CG, participants were given the screening BGQ again at 6-week follow-up. The interaction effect Group × Time was also significant, Λ = .45, F = 37.92 (1, 31), p < .001. A large effect size of η = .55, Cohen's d = 2.42 (95% CI = 1.41, 3.43) was found. Figure 3 displays the change in CG as measured by BGQ. These findings lend additional evidence that participants receiving CGGT demonstrated
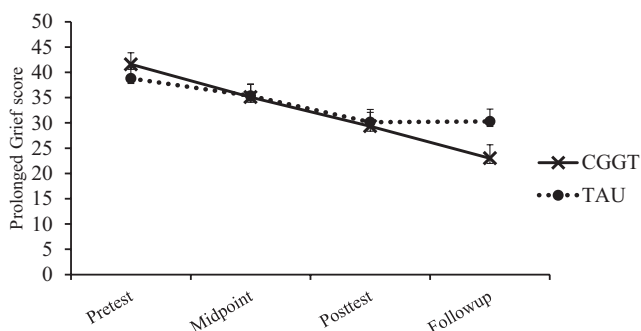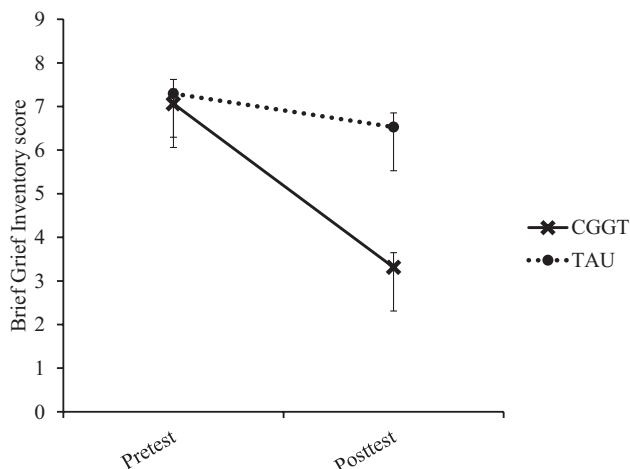
greater treatment response than participants receiving TAU. Moreover, improvement in CG among CGGT participants, as measured by the BGQ, also suggests clinical significance, in that all 12 CGGT completers (100%) scored 5 or lower on the BGQ at follow-up, in contrast to 1 of 4 (25%) of CGGT noncompleters, 3 of 14 (21%) TAU completers, and 1 of 4 (25%) of TAU noncompleters. Table 5 displays the posttreatment comparison of treatment completers and the intent-to-treat group on BGQ.

Change in Mood.—The effect of group assignment on anxiety as measured by the BAI and on depression as measured by the BDI-II was evaluated. For anxiety, the interaction effect Group × Time was significant, Λ = .648, F = 3.99 (3, 22), p < .05. A medium effect size of η = .352, Cohen's d = .786 (95% CI = −.014, 1.59) was found. Four pairwise t tests were conducted using the Bonferroni correction, α = 0.05/4 = 0.0125. For the TAU condition, only the Time 1 (pretest) to Time 4 (6-week follow-up) interval was significant, t(11) = 3.42, p < .006, and for the CGGT condition, only the Time 1 (pretest) to Time 4 (6-week follow-up) interval was significant, t(13) = 5.65, p < .000. Figure 4 illustrates change in anxiety. These findings suggest that, despite beginning the study with very low levels of anxiety, participants in both conditions realized improvement in anxiety, but those in the CGGT condition realized significantly more improvement.

For depression, the interaction effect Group × Time was nonsignificant. Figure 5 displays the change in depression in both conditions.

Figure 2. Change in complicated grief (PG-13).

Figure 3. Change in complicated grief (BGI).

Weekly Facilitator Evaluations of Participant Progress.—Figure 6 displays the week-to-week change of participants as assessed by facilitators using the CGI, aggregating participants by group. The CGGT group shows a steady improvement, whereas the TAU group appears to have a roller-coaster pattern of change with less overall improvement. The CGGT group achieved a final mean CGI score of 1, indicating *very much improved*. The TAU group finished with a final mean CGI score of 3, indicating *minimally improved*.

Treatment Fidelity.—Fidelity evaluators assessed randomly selected 20-min segments of sessions in both TAU and CGGT groups. As per protocol, raters viewed two segments and then met with the first author to review ratings. After viewing

	CGGT	TAU	F	df	p value	D	95% CI
Intent-to-treat							
	n = 4	*n = 4*					
BGQ							
Pretreatment	6.25	7.00					
Posttreatment	4.25	6.75					
Difference	2.00	0.25	1.96	1	.211	1.4	[−0.787, 3.586]
Treatment completers							
	n = 12	*n = 13*[a]			.		
Pretreatment	7.33	7.39					
Posttreatment	3.17	6.46					
Difference	4.16	0.93	61.41	1	.000	3.137	[1.966, 4.308]

Note. CGGT = complicated grief group therapy; *d* = effect size Cohen's *d*; CI = 95% confidence interval; TAU = treatment as usual.
[a]One TAU participant died between posttest and 6-week follow-up.
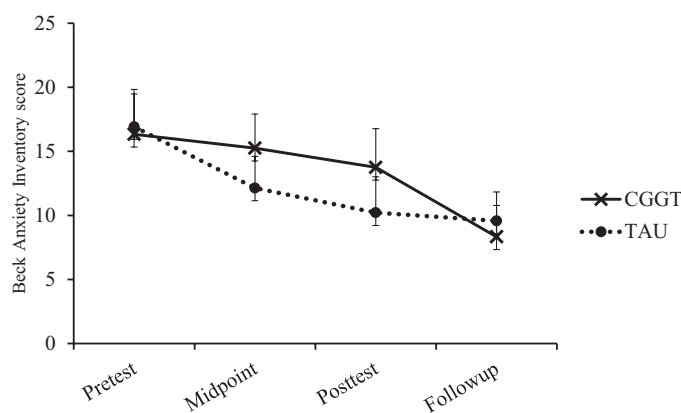
Figure 4. Change in anxiety (BAI).

and rating four additional segments, the ratings achieved a kappa coefficient value of .651, considered to be good agreement. The raters scored facilitators as correctly implementing the intervention as manualized 87% of the time.

Discussion

Study results suggest that participants receiving CGGT demonstrated higher treatment response than participants receiving TAU. Although participants in both groups showed improvement in measures of CG, participants in the CGGT group realized significantly greater improvement. More importantly, when CG was measured on PG-13, nearly half of CGGT participants realized clinically significant improvement. On the BGQ, all 12 CGGT completers had scores upon follow-up that, had they scored at that level at pretest, would have disqualified them for study enrollment. This high level of clinical significance suggests that those in the CGGT group were effectively treated for CG.

Comparison of CGT and CGGT

The study by Shear et al. (2005) had similar findings, in that the participants receiving specific CG therapy showed greater treatment response. Using Shear's criteria—treatment response defined either as independent evaluator-rated CGI score of 1 or 2 or as time to a 20-point or better improvement in the self-reported Inventory of Complicated Grief (for this study, 50% score improvement on the newer PG-13 instrument)—our research also found a CGI of 1 or 2, significant improvement as measured by PG-13, with a clinically significant improvement in 41% of CGGT participants. The research design in this study approximated the Shear et al. (2005) study in length of intervention as well as use of measures and clinical indicators, allowing a meaningful comparison between individual and group treatment modalities. The similar outcomes suggest that for persons experiencing CG, specialized treatment is beneficial.

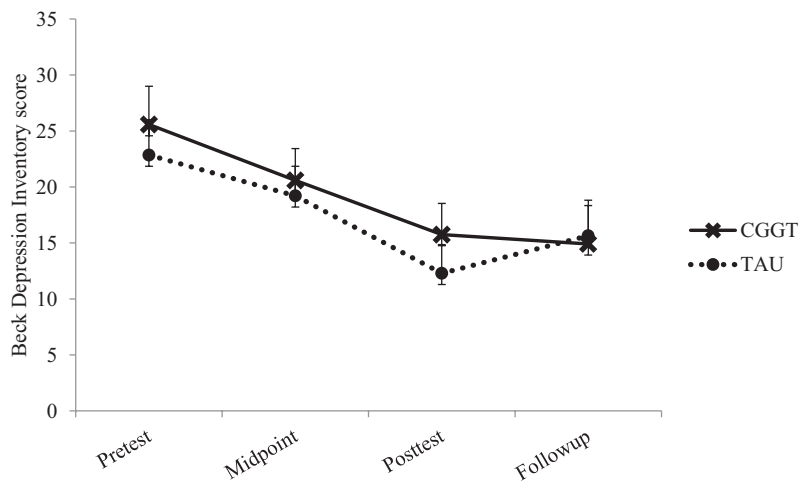The process and activities of the CGGT intervention affirm the value of specialized care for

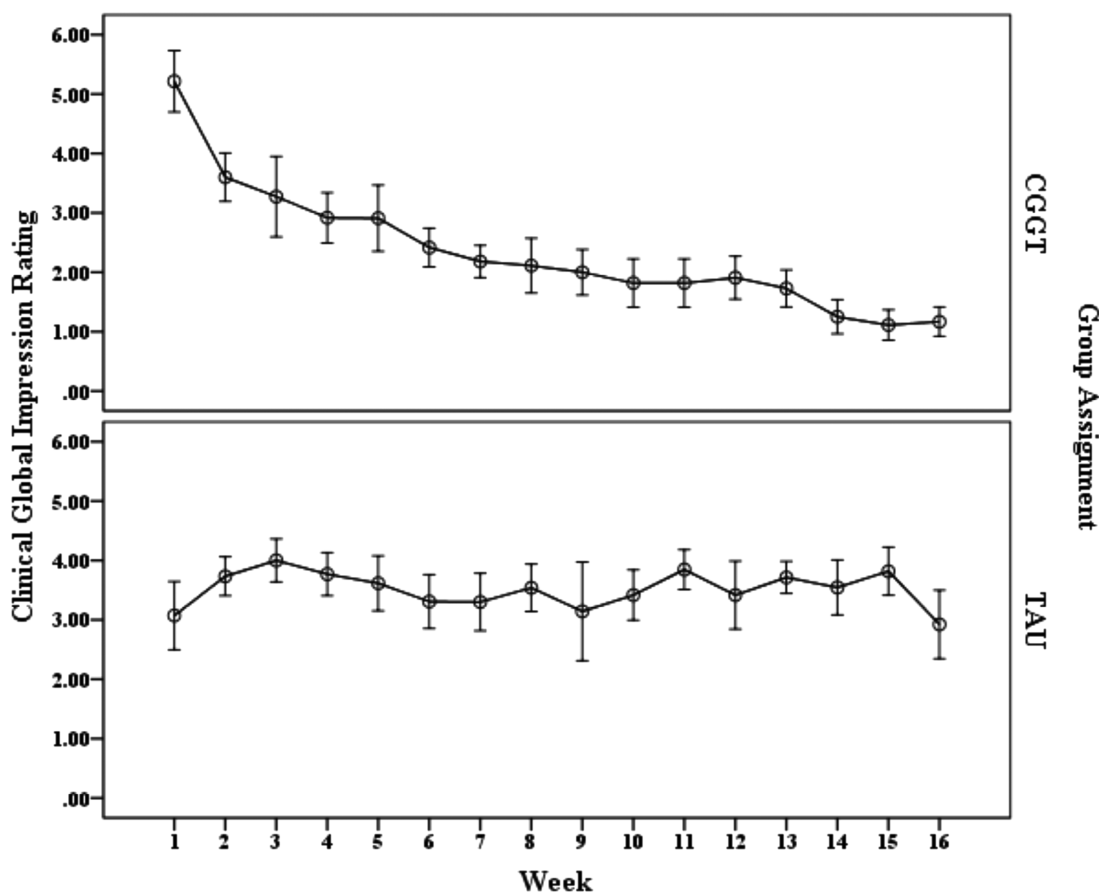**Figure 5.** Change in depression (BDI-II).

Figure 6. Weekly change in participants by group (CGI).

those with CG, as the CGGT groups demonstrated a steady progression toward improvement collectively and individually. The support group process as provided in the TAU groups may sufficiently address a normative grief process and may have additional benefit for some elements of CG for some persons, but the specific group interventions that target unique elements of CG appear more potent. Several activities address avoidance. Revisiting the death story at five intervals with challenges and prompting from the facilitators and other participants, structured memory exercises, and the imaginal conversation encouraged participants to focus on difficult aspects of the death and of the relationship with the decedent. Goal setting and self-monitoring of emotions targeting

the motivational symptoms of CG fostered self-awareness and skill-building. The incorporation of supportive others selected by participants into the treatment challenged the real or perceived sense of social isolation. These elements represent focused interventions that uniquely distinguish CGGT from TAU.

If CG is better addressed using specialized CG therapy, what are the relative merits of group versus individual treatment? Both modalities are successful as they directly address the troublesome features of CG; the nature of the attachment to the decedent, patterns of avoidance, thoughts and feelings of guilt and shame, and social isolation. However, group treatment offers unique advantages unavailable in individual therapy. With respect to the value of CGGT, the therapy group was designed to generate a shared experience for grief that is unresolved and experienced as apart from the normal grief process. It reduced the isolation that is a consequence of avoidance behavior and constricted social supports and provided an opportunity to give as well as receive support. The CGGT groups fostered an environment where past relationship issues and attachment insecurity could be voiced and evaluated. It provided opportunity for participants to set goals and be held accountable for progress. In individual therapy, even the most-experienced clinician could not identify with the varied personal losses represented in a group, nor serve as peer to all group participants. Groups are not for everyone; some individuals are unable or unwilling to join with others, to share the distressing experiences of others or to self-disclose in a group. Group work also necessitates group activities proceeding as scheduled, with a specified agenda and duration. Individual therapy allows for more tailored treatment and an open-ended duration of care.

It is also essential to recognize and support persons who may benefit from concurrent group and individual care. Many participants in this study were engaged in individual therapy for depression concurrent with the TAU or CGGT interventions. While a potential study limitation, this occurrence was similarly distributed across TAU and CGGT conditions. Moreover, utilization of concurrent modalities reflects appropriate mental health practice in the community.

Theoretical Implications of the Study

The findings of the study, including the successful impact of specific CG interventions that target the relationship between participants and decedents, suggest that persons with insecure attachments who are struggling to address feelings of attachment to the decedent and those with disorganized/disoriented attachments who perceive the death as a personally traumatic event, benefit from CGGT interventions as developed from attachment theory.

The CGGT interventions also specifically target the three elements of dual-process theory, LO, RO, and the oscillation required for an effective grief process. The treatment elements of the imaginal conversation, structured memory activities and retelling of the death story address the LO aspect of grief. Goal setting, self-care, and inclusion of supportive other relationships target RO and the creation of the new life without the deceased. Self-assessment of grief, management of personal thoughts, and feelings and the group experience itself facilitate oscillation. Moreover, these activities specifically target the absence of conflict-avoidance processing required for adjustment to the death by teaching valuable skills of effective grieving. These findings suggest that the DPM is suitable for examining the nature of CG as well as normal grief.

The clinical improvement in the CG scores of CGGT participants provides additional affirmation of these theories with respect to both normal grief and CG. Each theory is relevant to some aspects of the CG experience, and when blended into a larger framework, supports the conceptual foundation from which the interventions were developed.

Strengths and Limitations of the Study

This study was conducted during a time of great controversy surrounding the validity of CG as a unique clinical entity, the criteria for diagnosis—including the interval required between death and diagnosis, and distinction between CG, depression and anxiety. In addition, the PG-13, while validated, was in the early stages of implementation.

The study was designed to adhere to the CONSORT (2010) criteria for RCTs; thus, history, maturation, statistical regression, and temporal causation were controlled for. Meticulous attention to randomization, blinding of participants, evaluators, facilitators and study personnel to condition reduced potential for selection bias, and minimized alternative explanations of effect. Study quality was optimized by developing a CGGT manual that incorporated the CGT treatment approach

with evidence-based group techniques. Treatment manuals for both CGGT and TAU resulted in an unambiguous independent variable and interventions that were precise and replicable. The study utilized reliable and valid measures of the dependent variable, CG. Self-report measures (PG-13, BGQ, BAI, and BDI-II), facilitator ratings, and videotape review provided triangulation of data.

The primary limitation of the study is sample size—it is appropriately viewed as a pilot study. One threat to external validity is uncertain generalizability to the general population of older adults with CG. Persons willing to participate in group therapy may have lower levels of social isolation, more or better social supports, or an ability to utilize the social support available in groups compared to nonparticipants.

Participants who were on medication to address CG or other mental health concerns or who had other ongoing mental health care were included. An awareness of these supports allowed us to compare the two groups with respect to medication and psychotherapy use and confirm that they were similar. Participants in the study by Shear et al. (2005) were also encouraged to maintain their medication regimen.

While we were able to address the treatment integrity issues of therapist competence and treatment adherence and quality with the use of independent treatment fidelity evaluators, a comprehensive treatment fidelity evaluation of all elements of the intervention was beyond the scope of this study.

Finally, we did not determine which persons with CG are better suited to individual versus group therapy, and further research in this area is indicated.

Conclusion

This study supports prior research recommending specialized treatment for persons with CG. As research elicits a deeper understanding of the distinctions between normal grief and CG, improved screening, diagnosis, and treatment options are indicated for effective care of persons with CG. CGGT brings the additional advantages of group therapy, addressing the social isolation and disenfranchised status of those whose grief experience is profound and has potential as an emerging best practice intervention for older adults and other populations with CG. It merits further exploration and development.

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