Treatment of Complicated Grief in Survivors of Suicide Loss: A HEAL Report

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ABSTRACT

Objective: Suffering associated with complicated grief (CG) is profound. Because suicide loss survivors are susceptible to developing CG, identifying effective treatments for suicide loss survivors with CG is a high priority. This report provides data on the acceptability and effectiveness of antidepressant medication and complicated grief therapy (CGT), a CG-targeted psychotherapy, for suicide loss survivors with CG identified by an Inventory of Complicated Grief score ≥ 30.

Methods: This is a secondary analysis of data collected from March 2010 to September 2014 for a 4-site, double-blind, placebo-controlled randomized trial comparing the effectiveness of antidepressant medication alone or in combination with CGT for participants with CG (score ≥ 30 on the Inventory of Complicated Grief) who were bereaved by suicide (SB; n = 58), accident/homicide (A/H; n = 74), or natural causes (NC; n = 263). Using mode of death as a grouping factor, we evaluated acceptability of treatments by comparing 12-week medication and 16-session CGT completion; we evaluated effectiveness by comparing response at week 20, defined by a score of 1 or 2 on the Complicated Grief Clinical Global Impressions-Improvement scale (CG-CGI-I), and additional secondary response measures.

Results: Among participants receiving medication alone, SB medication completion rates (36%) were lower than rates for A/H (54%) and NC (68%; $\chi^2 = 11.76$, $P < .01$). SB medication completion rates were much higher for SB individuals receiving CGT (82%; $\chi^2 = 12.45$, $P < .001$) than for SB individuals receiving medication alone. CGT completion rates were similar in the 3 groups (SB = 74%, A/H = 64%, NC = 77%; $\chi^2 = 2.48$, $P = .29$). For SB participants receiving CGT, CG-CGI-I response rates were substantial (64%), but lower compared to the other groups (A/H = 93%, NC = 84%; $\chi^2 = 8.00$, $P < .05$). However, on all other outcomes, changes from baseline for SB participants were comparable to those for A/H and NC participants, including number and severity of grief symptoms, suicidal ideation, and grief-related impairment, avoidance, and maladaptive beliefs.

Conclusions: These results raise concern about the acceptability of medication alone as a treatment for complicated grief in treatment-seeking suicide-bereaved adults. In contrast, CGT is an acceptable and promising treatment for suicide-bereaved individuals with complicated grief.

Trial Registration: ClinicalTrials.gov identifier: NCT01179568

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"Now I am able to enjoy the holidays again and even look forward to making new, beautiful memories with my family, including sharing my holiday memories of my father. . . . I am beginning to heal, and it feels amazing."

—Comment before a holiday season from a suicide-bereaved participant with complicated grief after completing complicated grief therapy

Complicated grief (CG), characterized by prolonged acute grief and complicating psychological features such as self-blaming thoughts and excessive avoidance of reminders of the loss,[1–3] affects about 2%–3% of adults worldwide.[4,5] CG is a painful and debilitating condition that, without treatment, can last for years, if not indefinitely.[6] Fortunately, there is growing evidence for the effectiveness of therapies targeting CG.[7–10]

Losing a loved one to suicide may be a risk factor for CG.[2,11–17] Accordingly, it is important to know if CG after death by suicide responds differently to treatment interventions compared to CG after other causes of death. To help answer this question, the American Foundation for Suicide Prevention (AFSP) sponsored a supplement to a National Institute of Mental Health–funded 4-site, double-blind, placebo-controlled, randomized trial, Healing Emotions After Loss (HEAL), designed to evaluate the effectiveness of citalopram pharmacotherapy with and without complicated grief therapy (CGT) for CG.[10]

In this secondary analysis of the parent study's outcomes,[10] we address the important questions of whether antidepressant medications and CGT are acceptable and effective for individuals with CG after suicide bereavement. To evaluate the acceptability of the interventions, we compared medication and CGT treatment completion across participants categorized by cause of death: suicide bereaved (SB), accident/homicide bereaved (A/H), and natural cause bereaved (NC). The A/H group helps demarcate the specific effects of suicide loss in particular, as opposed to the effects of any violent and

Clinical Points

- Because suicide loss survivors are susceptible to unusually intense, prolonged, and impairing grief, identifying effective treatments for suicide loss survivors who are suffering is a high priority.
- If a suicide loss survivor presents with complicated grief, it is not likely that medications alone will be well accepted, but complicated grief therapy appears to be both acceptable and effective.

unanticipated loss.[18] To evaluate the effectiveness of CGT for CG after suicide bereavement, we compared the SB participants' CGT response outcomes to those of the A/H and NC participants.

METHODS

Participants

Bereaved individuals (N = 395) aged 18–95 years, including 58 SB and 74 A/H, were randomized in the multisite clinical trial[10] between March 2010 and September 2014 (ClinicalTrials.gov identifier: NCT01179568). Participants were recruited using personal and public outreach and print, broadcast, and Internet media. Referrals were made by health care professionals, non–health care personnel, and patients or family members. With support from the AFSP, study staff made extra efforts to recruit suicide loss survivors through targeted online postings, advertisements, and referrals. All eligible participants were willing to be randomized to receive citalopram or placebo with or without CGT.

Participants who scored ≥ 30 on the Inventory of Complicated Grief (ICG)[19] were interviewed to confirm the presence and primacy of CG and study eligibility. Exclusion criteria (disorders assessed using the Structured Clinical Interview for *DSM-IV-TR* Axis I [SCID-I] unless noted) were current substance use disorder (past 6 months), lifetime history of psychotic disorder, bipolar I disorder, active suicidal plans requiring hospitalization, Montreal Cognitive Assessment (MoCA)[20] score < 21, pending lawsuit or disability claim related to the death, and concurrent psychotherapy or treatment with an antidepressant.

The study was conducted in accordance with ethical standards as approved by the Human Research Protection Review Boards at each participating site. All participants provided verbal and written informed consent after the procedures and possible side effects were fully explained.

Assessment Procedures

Trained independent evaluators completed the clinician-administered measures. Assessments were audiotaped; 10% were randomly selected and corated for reliability. Biweekly cross-site meetings reviewed rating procedures and included practice coratings to prevent drift. Most self-report and evaluator-administered assessments were completed at baseline and at monthly intervals through week 20.

Structured Clinical Interview for* DSM-IV-TR *Axis I. Trained study staff administered the SCID-I[21] at baseline to confirm study eligibility and to characterize psychiatric comorbidities, including presence of current and lifetime major depressive disorder (MDD) and posttraumatic stress disorder (PTSD).

Complicated Grief Clinical Global Impressions Scale-Improvement (CG-CGI-I). Study evaluators, blind to randomized treatment assignment, completed a version of the Clinical Global Impressions-Improvement scale (CGI-I)[22] modified to evaluate improvement in CG symptoms[23] since baseline. Scores range from 1 (very much improved) to 7 (very much worse). Participants with CG-CGI-I scores of 1 (very much improved) or 2 (much improved) at week 20 were considered responders.

Inventory of Complicated Grief. The ICG[19] is a 19-item self-report questionnaire designed to measure symptoms of CG. Response choices are presented on a frequency scale ranging from 0 (never) to 4 (always); total score may range from 0 to 76. All participants in the current study had ICG scores ≥ 30 at baseline.

Structured Clinical Interview for Complicated Grief (SCI-CG). The SCI-CG[24] is a 31-item clinical interview that uses SCID-like scoring (1 = Absent, 2 = Unsure or Equivocal, 3 = Present). The SCI-CG was designed to simultaneously evaluate proposed criteria sets for CG, such as persistent complex bereavement disorder, prolonged grief disorder, and CG, and to ultimately provide a validated structured clinical interview for clinicians and researchers.[24] Higher scores reflect more severe CG.

Columbia Suicide Severity Rating Scale-Revised (C-SSRS-R). Study staff used a revised version of the C-SSRS[25] modified for bereavement[23] to supplement eligibility decisions related to acuity of suicidal ideation and to characterize pre- and post-death passive and active suicidal ideation. For the purpose of this study, passive suicidal ideation was operationalized by endorsing "Have you wished you were dead or wished you could go to sleep and not wake up?" and nonspecific active suicidal ideation by "Have you had any thoughts of actually killing yourself?" Each item was repeated referencing suicidal ideation "before the death" and "since the death." "Since the death" includes the period since the death through baseline evaluation. When the scale was administered post-baseline, the reference period was "since the last visit."

Work and Social Adjustment Scale (WSAS). The WSAS[26] is a 5-item self-report scale. Respondents rate work, home management, private leisure, social leisure, and forming and maintaining close relationships according to the degree to which each is impaired because of their grief, ranging from 0 (not at all) to 8 (severe interference); total score may range from 0 to 40.

Grief-Related Avoidance Questionnaire (GRAQ). The GRAQ[27] is a self-rated measure of avoidance of reminders of loss. Respondents rate each of 15 activities or situations according to how often they avoid them, ranging from 0 (never) to 3 (always); total score may range from 0 to 45.

Typical Beliefs Questionnaire (TBQ). The TBQ[28] is a 25-item self-report questionnaire used to evaluate common CG-related thoughts and beliefs. Respondents rate each item according to how strongly they believe it, from 0 (not at all) to 4 (very strongly). For this study, TBQ items were dichotomized, with an item considered as endorsed if the item response was a 3 or 4. Scores reflect number of maladaptive beliefs endorsed; total score may range from 0 to 25.

Interventions

Pharmacotherapy. Study pharmacotherapists received training that included information about CG, CGT, and the study protocol and site-based supervision. They prescribed pills and provided clinical management that included psychoeducation, grief monitoring, and encouragement to engage in activities outlined in a study pharmacotherapy manual. Pharmacotherapists were restricted from providing exposure instructions, emotion regulation strategies, or cognitive reframing. However, in line with good clinical practice, they were allowed to provide empathic support and general encouragement for behavioral activation, including confronting avoided situations. Visits were enhanced by interactions with warm, supportive clinic administrative staff. Consistent with the first aim of the primary study[10] designed to test the efficacy of medication for CG by comparing citalopram versus placebo treatment response rates at week 12, completion rates for medication were assessed at 12 weeks.

Medication visits were scheduled at baseline and at weeks 2, 4, 8, 12, 16, and 20 and 1–2 weeks after any change in dose. For most participants, the starting dose was citalopram/placebo 20 mg (1 pill) daily. Study treatment was initiated at 10 mg daily for participants over age 75 years and those judged to be particularly sensitive to adverse effects, with the option to increase as tolerated as soon as week 2. Treatment proceeded along a planned dose escalation algorithm that included symptom and side effect ratings. Dose could be increased to a maximum of 40 mg (2 pills) daily for most of the study period. About 1 year into the study period, the maximum dose was reduced from 60 mg (3 pills) in response to revised dosing recommendations related to emergent data on cardiovascular risks at higher doses of citalopram. Liberal exit criteria ensured that participants who were not responding to treatment were not encouraged to continue participating in research treatment for a prolonged period of time without benefit.

Complicated grief therapy. Therapists, including social workers, psychiatrists, and psychologists, who provided CGT received training and supervision similar to what was done in our previous studies.[8,9] The treatment manual and training opportunities are available through www.complicatedgrief.columbia.edu.

CGT is a manualized, structured, 16-session protocol aimed at resolving grief complications and facilitating adaptation to loss. CGT contains 7 core modules ("lay of the land," self-regulation, aspirational goals, rebuilding connection, revisiting the story of the death, revisiting the world, and memories/continuing bonds).[6] This core material is provided in 4 treatment phases (getting started, core revisiting sequence, midcourse review, and closing sequence). The therapist establishes a companionship alliance and works closely with each individual to personalize use of the manualized procedures. The therapy was not specifically adapted for the suicide bereaved, as CGT allows flexibly in addressing a range of losses. The 16 CGT sessions were delivered during 20 weeks; therefore, completion rates for CGT were assessed at 20 weeks.

Randomization

Overall, 395 adults with CG were randomized to receive citalopram (n = 101), placebo (n = 99), citalopram + CGT (n = 99), or placebo + CGT (n = 96). Participants were randomized with equal probability (25%) to each treatment arm, using permuted-block randomization (block size of 4 or 8) stratified by site and by presence or absence of current MDD. Blocks were not stratified by mode of death, but treatment arms were relatively balanced in the groups defined by mode of death: SB participants were randomized to receive citalopram (n = 14), placebo (n = 17), CGT with citalopram (CGT + citalopram; n = 14), and CGT with placebo (CGT + placebo; n = 13); A/H participants received citalopram (n = 24), placebo (n = 11), CGT + citalopram (n = 18), and CGT + placebo (n = 21); NC individuals received citalopram (n = 63), placebo (n = 71), CGT + citalopram (n = 67), and CGT + placebo (n = 62). Of note, each group was about equally likely to be treated with medication only (SB = 47% vs A/H = 53% vs NC = 49%; $\chi^2 = 0.524$; $P = .77$).

Statistical Analysis

We present summary statistics as number endorsed and frequency for categorical variables and mean and standard deviation for continuous variables. Continuous variables were compared across bereavement categories (SB, A/H, and NC) using analyses of variance and categorical variables using χ^2 tests. As done in the previously published primary outcomes study,[10] response rates were adjusted to account for missing outcome assessments using inverse probability weighting techniques. Due to a small sample size within SB by treatment arm, it was not possible to adjust for other variables of interest (eg, depression diagnosis, time since the loss). Statistical significance was defined as $P < .05$ with a 2-tailed test. For significant findings, pairwise differences (eg, SB vs NC) were examined using 95% confidence intervals. Due to the exploratory nature of the analyses, we did not adjust for multiple comparisons.[29]

RESULTS

Baseline Characteristics

Baseline demographic characteristics and time since death are summarized in Table 1. As described in greater detail in a previous publication,[30] we found significant differences across bereavement categories with respect to age, years

since loss, and relationship to the deceased. SB participants were somewhat younger than A/H and NC participants. More time had passed since the A/H deaths than SB and NC deaths, and a greater number of NC participants were grieving the death of a spouse while fewer were grieving the death of a child. It was not possible to control for these variables in the present analysis due to small cell sizes resulting from dividing the sample into treatment conditions and bereavement categories.

Acceptability of Treatments: Completion Rates

Table 2 shows medication and CGT completion rates for SB, A/H, and NC participants.

Medication completion. For individuals receiving medication alone, without CGT (SB = 31, A/H = 35, NC = 134), 12-week medication completion rates were lower for SB participants compared to A/H or NC participants (SB = 36% vs A/H = 54% vs NC = 68%; $\chi^2 = 11.76$; $P < .01$). Of note, upon further evaluation, we found that fully 19% (6/31) of the SB participants dropped out of the medication-only arms within the first week of the trial compared to only 9% (3/35) of the A/H and 6% (8/134) of NC participants.

Among participants receiving CGT (SB = 27, A/H = 39, NC = 129), medication completion rates did not differ across bereavement categories (SB = 82%, A/H = 72%, NC = 71%; $\chi^2 = 1.19$; $P = .55$). SB participants receiving CGT were much more likely to complete 12 weeks of medication (82%) than those receiving medication alone ($\chi^2 = 12.45$; $P < .001$).

CGT completion. Completion rates for the full course of 16 sessions of CGT were comparable for participants across each bereavement category (SB = 74%, A/H = 64%, NC = 77%; $\chi^2 = 2.48$; $P = .29$).

Table 1. Baseline Characteristics by Mode of Death

Characteristic	Suicide Bereaved (n = 58)		Accident/ Homicide Bereaved (n = 74)		Natural Cause Bereaved (n = 263)	
	Mean	SD	Mean	SD	Mean	SD
Age, y[a]	47.2	14.1	51.6	14.8	54.6	14.2
Time since death, y[b]	3.9	4.6	6.6	9.1	4.3	7.1
	n	%	n	%	n	%
Female[c]	48	82.8	56	75.7	204	77.6
Relationship lost[d]						
Partner	18	31.0	13	17.7	113	43.0
Parent	7	12.1	10	13.6	96	36.5
Child	19	32.8	34	46.0	27	10.3
Other relative/close friend	14	24.1	17	23.0	27	10.3
Prior use of antidepressant(s)[e]	13	22.4	21	28.4	59	22.4
Concurrent diagnosis						
Major depressive disorder[f]	40	69.0	48	64.9	174	66.2
Posttraumatic stress disorder[g]	32	55.2	31	41.9	91	34.6

[a]Significant difference between groups ($F = 6.80$, $P < .001$).
[b]Significant difference between groups ($F = 3.30$, $P = .038$).
[c]No significant difference between groups ($\chi^2 = 1.03$, $P = .599$).
[d]Significant difference between groups ($\chi^2 = 79.97$, $P < .001$).
[e]No significant difference between groups ($\chi^2 = 1.18$, $P = .554$).
[f]No significant difference between groups ($\chi^2 = 0.25$, $P = .878$).
[g]Significant difference between groups ($\chi^2 = 8.78$, $P = .012$).

Effectiveness of CGT: Response Outcomes

Because there was a high dropout rate for those not assigned to CGT (ie, low completion rates for medication-alone arms), we evaluated outcomes only for participants who were randomized to CGT. Also, as described in our primary outcomes article,[10] the CGT + citalopram and CGT + placebo groups reported virtually identical outcomes. Accordingly, to have a sufficiently large sample for each bereavement category (SB, A/H, and NC), we combined the CGT + citalopram and CGT + placebo arms for our outcome analyses. Thus, the effectiveness of treatments for SB participants with CG was evaluated only for CGT and not for medication.

Table 3 shows unadjusted results for CGT response outcomes. Unadjusted CG-CGI-I response rates were significantly lower for SB participants compared to the others (SB = 64% vs A/H = 93% vs NC = 84%; $\chi^2 = 8.00$; $P < .05$). After adjusting for missing response data at week 20, the pattern remained the same with substantial response rates to CGT for SB participants

Table 2. Medication and Cognitive Grief Therapy (CGT) Completion by Mode of Death and Treatment Arm

Treatment Variable	Suicide Bereaved (n = 58)		Accident/ Homicide Bereaved (n = 74)		Natural Cause Bereaved (n = 263)				Suicide Bereaved vs Accident/ Homicide Bereaved		Suicide Bereaved vs Natural Cause Bereaved	
	n/Total n	%	n/Total n	%	n/Total n	%	χ^2	P[a]	% Difference	95% CI	% Difference	95% CI
Medication completion (12 weeks)												
Medication alone (no CGT)												
Citalopram (n = 101)	5/14	35.7	12/24	50.0	50/63	79.4	13.5	**.001**	−14.3	−17.8 to 46.4	−43.7	16.6 to 70.7
Placebo (n = 99)	6/17	35.3	7/11	63.6	41/71	57.8	3.20	.20	−28.3	−8.1 to 64.7	−22.5	−3.0 to 47.9
Combined (n = 200)	11/31	35.5	19/35	54.3	91/134	67.9	11.76	**.003**	−18.8	−4.8 to 42.4	−32.4	13.8 to 51.0
Medication and CGT												
Citalopram (n = 99)	11/14	78.6	13/18	72.2	47/67	70.2	0.41	.82	6.4	−36.2 to 23.5	8.4	−32.6 to 15.7
Placebo (n = 96)	11/13	84.6	15/21	71.4	45/62	72.6	0.90	.64	13.2	−40.7 to 14.3	12.0	−34.6 to 10.5
Combined (n = 195)	22/27	81.5	28/39	71.8	92/129	71.3	1.19	.55	9.7	−30.0 to 10.7	10.2	−26.8 to 6.4
Total (n = 395)	33/58	56.9	47/74	63.5	183/263	69.6	3.82	.15	−6.6	−10.2 to 23.4	−12.7	−1.2 to 26.6
CGT completion (16 sessions)												
Citalopram (n = 99)	11/14	78.6	9/18	50.0	53/67	79.1	6.40	**.04**	28.6	−60.1 to 3.0	−0.5	−23.1 to 24.1
Placebo (n = 96)	9/13	69.2	16/21	76.2	46/62	74.2	0.21	.90	−7.0	−24.1 to 38.0	−5.0	−22.4 to 32.3
Total (n = 195)	20/27	74.1	25/39	64.1	99/129	76.7	2.48	.29	10.0	32.3 to 12.4	−2.7	−15.4 to 20.7

[a]Statistically significant comparisons are shown in boldface.

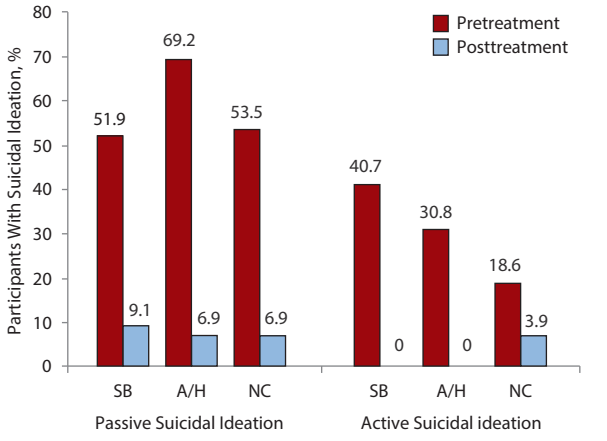
Table 3. Week 20 Outcomes for Participants in CGT Treatment Arms by Mode of Death[a]

	Suicide Bereaved (n = 21 or 22)[b]		Accident/ Homicide Bereaved (n = 28–30)[b]		Natural Cause Bereaved (n = 100 or 101)[b]				Suicide Bereaved vs Accident/Homicide Bereaved		Suicide Bereaved vs Natural Cause Bereaved	
CGT Treatment Variable	n/Total n	%	n/Total n	%	n/Total n	%	χ^2	P[c]	% Difference	95% CI	% Difference	95% CI
CG-CGI-I CG response (% with score = 1 or 2, n = 152)	14/22	63.6	27/29	93.1	85/101	84.2	8.00	**.02**	−29.5	7.4 to 51.6	−20.5	−0.8 to 41.9
	Mean	SD	Mean	SD	Mean	SD	F	P	% Difference	95% CI	% Difference	95% CI
ICG CG severity (mean change; n = 152)	23.7	11.8	24.8	13.0	25.9	13.0	0.29	.75	−1.1	−6.0 to 8.2	−2.2	−3.9 to 8.3
SCI-CG CG severity (mean change; n = 119)	18.6	12.0	22.2	13.2	22.6	13.2	0.59	.56	−3.6	−5.0 to 12.3	−4.0	−3.3 to 11.2
WSAS impairment (mean change; n = 150)	15.1	11.5	14.2	9.7	14.7	10.2	0.06	.94	0.97	−7.0 to 5.1	0.42	−5.4 to 4.6
GRAQ avoidance (mean change; n = 149)	13.2	10.1	12.1	10.2	15.1	12.4	0.84	.43	1.2	−7.1 to 4.7	1.9	−3.8 to 7.6
TBQ maladaptive beliefs (mean change; n = 150)	6.7	5.6	7.1	4.5	8.6	5.7	1.45	.24	−0.42	−2.4 to 3.3	−1.8	−0.87 to 4.6

[a]Includes only those completing week 20 assessments.
[b]Range of sample sizes provided to reflect different rates of missing data for different outcome measures.
[c]Statistically significant comparisons are shown in boldface.
Abbreviations: CG = complicated grief, CG-CGI-I = Complicated Grief Clinical Global Impressions-Improvement scale, CGT = Complicated Grief Therapy, GRAQ = Grief-Related Avoidance Questionnaire, ICG = Inventory of Complicated Grief, SCI-CG = Structured Clinical Interview for Complicated Grief, TBQ = Typical Beliefs Questionnaire, WSAS = Work and Social Adjustment Scale.

(63%), but still lower compared to other groups (A/H = 94%, NC = 86%; $\chi^2 = 6.12$; $P < .05$). There were no differences between groups on any of the other outcomes measuring change from baseline, including CG symptoms on the ICG or SCI-CG. Notably, despite active suicidal ideation being present in over 40% of the SB participants prior to treatment, there was no reported active suicidal ideation posttreatment (SB = 0/22); similarly, we found low rates of active suicidal ideation among the other participants posttreatment (A/H = 0/26, NC = 4/122) (see Figure 1).

Figure 1. Suicidal Ideation Before and After[a] Complicated Grief Therapy[b]



[a]Pretreatment (before) = period of time between the loss and the baseline assessment, posttreatment (after) = period of time since the previous visit (week 16) and the final assessment (week 20).
[b]SB: n = 58 at baseline, n = 22 at week 20; A/H: n = 74 at baseline, n = 26 at week 20; NC: n = 263 at baseline, n = 122 at week 20.
Abbreviations: A/H = accident/homicide bereaved, NC = natural cause bereaved, SB = suicide bereaved.

DISCUSSION

To evaluate the acceptability and effectiveness of treatments for survivors of suicide loss with CG, we conducted a secondary analysis of a clinical trial[10] designed to compare the effectiveness of antidepressant medication (citalopram) alone or in combination with CGT for the treatment of CG. Fifty-eight survivors of suicide loss who met criteria for CG were included in this study. To our knowledge, this is the largest group of suicide-bereaved individuals with CG who have participated in a randomized controlled treatment study.

Findings from this study indicate that for treatment-seeking, SB adults with CG, medication treatment alone may have low acceptability. Only 11 (35%) of the 31 SB participants randomized to receive medication alone completed 12 weeks of pharmacotherapy, compared to 22 (81%) of 27 who received medication and CGT. On the other hand, CGT completion rates were high and comparable across all bereavement categories, indicating that CGT is an acceptable treatment approach for suicide survivors with CG. Of 27 SB participants randomized to CGT, 20 (74%) completed the full 16-session course of therapy.

Not only is CGT well accepted among survivors of suicide loss, but it also appears to be effective. Especially noteworthy are the impressively low rates of posttreatment active suicidal ideation among suicide survivors. Similarly, for most outcomes, including CG symptom severity, passive suicidal ideation, and grief-related functional impairment, avoidance, and maladaptive beliefs, CGT was as effective for the SB participants as it was for the others.

The only outcome measure for which there was an observable difference between groups was the clinician-rated CG-CGI-I. Although approximately 2 of every 3 suicide

survivors who completed CGT were "much improved" or "very much improved" after CGT treatment (64% response rate), response rates were even higher for the A/H (93.1%) and the NC bereaved participants (84.2%). That the clinician-rated CG-CGI-I response rates were different across bereavement categories is somewhat surprising given that prior CGT studies,[8,9] including the primary outcome study from which these data were derived,[10] reported consistency between the CG-CGI-I and other outcome measures. In addition, the mean changes in ICG total scores were nearly identical across groups in this sample. The inconsistency between outcomes in this study may be attributable to rater bias related to independent assessors' knowledge of decedents' mode of death. Yet, the possibility remains that suicide survivors with CG may be somewhat less likely to respond to CGT, perhaps due to the additional burdens of higher rates of lifelong depression, PTSD, and suicidal ideation; a greater likelihood of experiencing post-loss PTSD; a stronger conviction that they could or should have prevented the death; more stigma and social isolation; and greater functional impairment.[30]

Results of this study must be tempered by several limitations. First, the parent study was not powered to examine cause of death as a moderator. Accordingly, the sample of SB individuals available for assignment to 4 different treatment cells was relatively small and further compromised by very high dropout rates from 2 of the cells. Clinical and statistical differences between groups may have been missed; further, the sample is too small to fully assess interactions or control for important demographic and social differences between the groups. For example, the death of a child has been shown to be associated with intense and complicated grief responses,[3] and there were more suicide-bereaved (33%) and accident-bereaved (46%) parents compared with those bereaved by natural causes (10%). Second, the high dropout rate of those receiving medication alone, without CGT, precludes our ability to assess the efficacy of antidepressants for CG in suicide survivors. However, since the dropout rates were equally formidable with citalopram as with placebo, it allows at least a tentative conclusion that medication alone may not be the treatment of choice for this population. Of note, this conclusion echoes previously reported findings for CG treatment in the parent study demonstrating that CGT is substantially more effective than medication alone for the treatment of CG.[10] Given the lack of demonstration of medication acceptability and efficacy in this and our larger study, further treatment studies for SB individuals with CG might benefit from a study design that does not require medications and guarantees each participant to receive an acceptable psychotherapy for SB individuals.

Third, although we categorized the sample based on manner of death, each group was itself heterogeneous, adding to the difficulty of generalizing results to other populations. In particular, suicide bereavement may range from loss of loved ones who had already made multiple attempts and whose lives were burdened with chronic, intractable depression to loss of someone who seemed happy and engaged and whose death was sudden and unexpected. Future research should include well-powered prospective studies of SB individuals and use of additional moderators and mediators (eg, measures of stigma related to suicide, social support, family interactions, biological markers, and possibly suicide subtypes), as well as longer follow-up.

These caveats aside, CG is a painful, chronic, and debilitating condition that occurs with increased frequency in bereaved individuals after death by suicide.[2,11] Treating CG is important to avert future psychiatric and family dysfunction as well as to decrease risk for future suicides. Adding to evidence that CGT is an effective treatment for CG in general,[8–10] this study provides preliminary evidence that CGT is feasible to administer, well tolerated, and effective for those with CG following a loved one's suicide. Effective recognition and treatment of CG among survivors of suicide loss should be a priority for prevention and intervention efforts following suicide loss.

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REFERENCES

1. Prigerson HG, Horowitz MJ, Jacobs SC, et al. Prolonged grief disorder: psychometric validation of criteria proposed for *DSM-V* and *ICD-11*. *PLoS Med*. 2009;6(8):e1000121.
2. Shear MK, Simon N, Wall M, et al. Complicated grief and related bereavement issues for *DSM-5*. *Depress Anxiety*. 2011;28(2):103–117.
3. Zetumer S, Young I, Shear MK, et al. The impact of losing a child on the clinical presentation of complicated grief. *J Affect Disord*. 2015;170:15–21.
4. Kersting A, Dölemeyer R, Steinig J, et al. Brief Internet-based intervention reduces posttraumatic stress and prolonged grief in parents after the loss of a child during pregnancy: a randomized controlled trial. *Psychother Psychosom*. 2013;82(6):372–381.
5. Asukai N, Tsuruta N, Saito A. Pilot study on traumatic grief treatment program for Japanese women bereaved by violent death. *J Trauma Stress*. 2011;24(4):470–473.
6. Shear MK. Clinical practice: complicated grief. *N Engl J Med*. 2015;372(2):153–160.
7. Neimeyer RA, Currier J. Grief therapy: evidence of efficacy and emerging directions. *Curr Dir Psychol Sci*. 2009;18(6):352–356.
8. Shear K, Frank E, Houck PR, et al. Treatment of complicated grief: a randomized controlled trial. *JAMA*. 2005;293(21):2601–2608.
9. Shear MK, Wang Y, Skritskaya N, et al. Treatment of complicated grief in elderly

persons: a randomized clinical trial. *JAMA Psychiatry*. 2014;71(11):1287–1295.
10. Shear MK, Reynolds CF 3rd, Simon NM, et al. Optimizing treatment of complicated grief: a randomized clinical trial. *JAMA Psychiatry*. 2016;73(7):685–694.
11. Mitchell AM, Kim Y, Prigerson HG, et al. Complicated grief in survivors of suicide. *Crisis*. 2004;25(1):12–18.
12. Tal Young I, Iglewicz A, Glorioso D, et al. Suicide bereavement and complicated grief. *Dialogues Clin Neurosci*. 2012;14(2):177–186.
13. Dyregrov K, Nordanger D, Dyregrov A. Predictors of psychosocial distress after suicide, SIDS and accidents. *Death Stud*. 2003;27(2):143–165.
14. Jordan JR. Bereavement after suicide. *Psychiatr Ann*. 2008;38(10):679–685.
15. Kristensen P, Weisæth L, Heir T. Bereavement and mental health after sudden and violent losses: a review. *Psychiatry*. 2012;75(1):76–97.
16. de Groot M, Kollen BJ. Course of bereavement over 8–10 years in first degree relatives and spouses of people who committed suicide: longitudinal community based cohort study. *BMJ*. 2013;347:f5519.
17. Lobb EA, Kristjanson LJ, Aoun SM, et al. Predictors of complicated grief: a systematic review of empirical studies. *Death Stud*. 2010;34(8):673–698.
18. Kaltman S, Bonanno GA. Trauma and bereavement: examining the impact of sudden and violent deaths. *J Anxiety Disord*. 2003;17(2):131–147.
19. Prigerson HG, Maciejewski PK, Reynolds CF 3rd, et al. Inventory of Complicated Grief: a scale to measure maladaptive symptoms of loss. *Psychiatry Res*. 1995;59(1–2):65–79.
20. Nasreddine ZS, Phillips NA, Bédirian V, et al. The Montreal Cognitive Assessment, MoCA: a brief screening tool for mild cognitive impairment. *J Am Geriatr Soc*. 2005;53(4):695–699.
21. First M, Spitzer R, Williams J, et al. *Structured Clinical Interview for DSM-IV-TR (SCID-I)-Research Version*. New York, NY: Biometrics Research, New York State Psychiatric Institute; 2002.
22. Guy W. *ECDEU Assessment Manual for Psychopharmacology*. Revised Edition. Washington, DC: US Department of Health, Education, and Welfare; 1976.
23. Shear K, Shair H. Attachment, loss, and complicated grief. *Dev Psychobiol*. 2005;47(3):253–267.
24. Bui E, Mauro C, Robinaugh DJ, et al. The sStructured Clinical Interview for Complicated Grief: reliability, validity, and exploratory factor analysis. *Depress Anxiety*. 2015;32(7):485–492.
25. Posner K, Brown GK, Stanley B, et al. The Columbia-Suicide Severity Rating Scale: initial validity and internal consistency findings from three multisite studies with adolescents and adults. *Am J Psychiatry*. 2011;168(12):1266–1277.
26. Mundt JC, Marks IM, Shear MK, et al. The Work and Social Adjustment Scale: a simple measure of impairment in functioning. *Br J Psychiatry*. 2002;180:461–464.
27. Baker AW, Keshaviah A, Horenstein A, et al. The role of avoidance in complicated grief: a detailed examination of the Grief-Related Avoidance Questionnaire (GRAQ) in a large sample of individuals with complicated grief. *J Loss Trauma*. 2016;21(6):533–547.
28. Skritskaya NA, Mauro C, Olonoff M, et al. Measuring maladaptive cognitions in complicated grief: introducing the Typical Beliefs Questionnaire. *Am J Geriatr Psychiatry*. 2017;25(5):541–550.
29. Bender R, Lange S. Adjusting for multiple testing—when and how? *J Clin Epidemiol*. 2001;54(4):343–349.
30. Tal I, Mauro C, Reynolds CF 3rd, et al. Complicated grief after suicide bereavement and other causes of death. *Death Stud*. 2017;41(5):267–275.