

## Intervention Research

# Dual-Process Bereavement Group Intervention (DPBGI) for Widowed Older Adults

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## Abstract

**Background and Objectives:** To examine the primary and secondary outcomes of a theory-driven group bereavement intervention for widowed older adults through a cluster-randomized controlled trial.

**Research Designs and Methods:** Twelve community centers providing health and social services for elderly people were randomly assigned to the experimental condition, the dual-process bereavement group intervention-Chinese (DPBGI-C) and to the control condition, the loss-oriented bereavement group intervention-Chinese (LOBGI-C). Both interventions comprised weekly, 2-hr sessions for 7 weeks followed by a 4-hr outing in the eighth week. Of 215 widowed older adults contacted and assessed, 125 eligible participants were interviewed three times—preintervention, postintervention, and at a 16-week follow-up—to assess complicated grief symptoms, anxiety, depression, loneliness, and social support.

**Results:** Using intention-to-treat analysis, both interventions produced improvements in grief, depression, and social support, but effect sizes were larger with the DPBGI-C. The participants in the DPBGI-C condition also reported reduced anxiety, emotional loneliness, and social loneliness, whereas those in the LOBGI-C condition did not. There were interactions between intervention type and time with respect to grief, anxiety, emotional loneliness, and social loneliness.

**Discussion and Implications:** Although traditional LOBGI-C can help to reduce grief and depression in bereaved older adults, the DPBGI-C was found to be superior as it had a greater and more extensive impact on outcomes. This is the first study of the effectiveness of this evidence-based, theory-driven intervention for widowed Chinese older adults and has implications for theory building and practice.

**Keywords:** Bereavement, Widowhood, Intervention, Randomized controlled trial, Dual-process model

Widowhood is a common life experience for older people. In Hong Kong, about one in two women aged 65 years or older is widowed; the ratio is lower for men, at 1 in 10 (Census and Statistics Department, 2017). Most bereaved people come to terms with their loss without formal intervention, but recent research suggests that about 20%–30% of bereaved persons need some additional support and

approximately 10% are at risk of persistent grief issues and require professional bereavement intervention (Aoun et al., 2015; Bonanno, Wortman, & Nesse, 2004). The *Diagnostic and statistical manual of mental disorders* (5th edition, American Psychiatric Association, 2013) proposed a bereavement-related disorder to be called “persistent complex bereavement disorder” in an appendix entitled

“Conditions for Further Study,” but it is not yet a recognized diagnosis. Similarly, it has been proposed that the upcoming ICD-11 should include a new disorder identified as prolonged grief disorder (PGD; Maercker et al., 2013). Recent studies suggest that approximately 7%–10% of bereaved people experience PGD (Kersting, Brähler, Glaesmer, & Wagner, 2011), with the prevalence being 14% among the Chinese population (Li & Prigerson, 2016). Older adults (variably defined as being from 55 to 65 years and older) are more likely to suffer from PGD than younger adults, with estimated rates of 9%–25% (Simon, 2015).

Bereaved older adults are at greater risk of emotional, mental, and physical health problems if they are socially isolated (Perng & Renz, 2018). Their poor health outcomes may be linked to a reduction in self-care abilities or loss of motivation to live in the absence of their spouse. The normal-aged related deterioration of daily functions is believed to make widowed older adults more vulnerable than their younger counterparts. In later life, loss of a spouse means the loss of a life companion and confidante. The diminishing number of children per couple, increasing childlessness (Cheng, Chan, Li, & Leung, 2014), and the great geographic mobility of adult children means that familial support for older adults is weakening, thus they are increasingly reliant on a spouse and this makes conjugal bereavement in later life more challenging. The diminishing of familial support also affects bereaved older adults. People who are widowed in old age are more likely to experience loneliness than their married peers (Dahlberg, Agahi, & Lennartsson, 2018), yet loneliness is rarely measured as an outcome of bereavement interventions (Currier, Neimeyer, & Berman, 2008). Loneliness was found to be a common challenge for bereaved older adults, but those who had greater social support from friends were less affected (Utz, Swenson, Caserta, Lund, & de Vries, 2014). Researchers have argued that recent social and economic developments in China have increased the likelihood of loneliness (Chen, Hicks, & While, 2014), and Chinese older adults who grew up in the traditional family-oriented culture find loneliness more devastating than their Western peers (Goodwin, Cook, & Yung, 2001). Weiss (1973) suggested that two types of loneliness could be distinguished: emotional loneliness and social emotional loneliness. The former refers to the absence of a significant other or someone to whom one has an emotional attachment whereas the latter refers to the absence of a sense of belonging to a social network. Similarly, Utz and colleagues (2014) differentiated between “feeling alone” and “being alone.”

Bereaved older adults are forced to confront new demands for adjustment from the world whilst dealing with separation distress following the loss of their spouse. Hahn, Cichy, Small, and Almeida (2014) found that widowed older adults have reduced resilience in the face of problems of everyday life and more physical symptoms in response to home-related stressors than before the death of spouse. Traditional bereavement interventions that

emphasize psychological needs might not address the multi-dimensional needs of bereaved persons, including support to cope with daily tasks.

In recent decades, various types of intervention have been developed to ease the possible adverse consequences of bereavement (e.g., normal or complicated grief, depression, symptom distress) and facilitate positive adjustment (e.g., improve coping, social adjustment, quality of life) (see reviews by Neimeyer & Currier, 2009; Waller et al., 2016; Wittouck, Van Autreve, De Jaegere, Portzky, & van Heeringen, 2011). The studies have examined a range of therapies, including cognitive behavioral therapy, supportive therapy, family-focused grief therapy, and interpersonal psychotherapy (Waller et al., 2016). There is considerable variability in the focus and effectiveness of the different interventions. First, the efficacy of grief and bereavement interventions varies according to level of need and circumstances surrounding the death (Boelen, 2016; Schut & Stroebe, 2005). For example, in individuals who are grieving normally, grief interventions may actually interfere with the natural grief process and result in greater distress (Schut & Stroebe, 2005). Interventions aimed at treating bereaved people with severe grief symptoms have had positive outcomes (Neimeyer & Currier, 2009). Second, meta-analyses of the efficacy of bereavement interventions have consistently shown that their effects are modest or minimal (Currier et al., 2008; Neimeyer & Currier, 2009; Wittouck et al., 2011), comparing with that of general psychotherapy. This indicates the need for development of an effective psychosocial bereavement intervention.

Third, according to Waller et al. (2016), few of the studies of bereavement interventions published between 2000 and 2013 were of high methodological quality. These identified studies, which were mainly on individual-based interventions, were different in nature, and showed mixed results. Since then, newer randomized controlled trials of grief-specific cognitive behavioral interventions (Bryant et al., 2014; Rosner, Pfoh, Kotoučová, & Hagl, 2014; Shear et al., 2014) and internet-based interventions (Eisma et al., 2015; Litz et al., 2014) have produced more promising results in diverse settings and populations. In particular, Shear et al. (2014) and Nam (2016) found differences in the grief reactions and adjustment of older adults assigned to a complicated grief treatment and those assigned to interpersonal psychotherapy or supportive counseling; however, only 51% of the intervention group responded to treatment (Shear et al., 2014). Other potential limitations of previous intervention studies are the considerable heterogeneity of the samples (e.g., diversity in the loss of relationship, cause of death and bereavement period) and the fact that most have been developed and validated in Western countries. The extant evidence suggests that very few bereavement interventions have any effect and those that do are all individual-based, but not group, interventions. Although grief is a personal process it is affected by social context. In particular, loneliness is a major challenge for those bereaved in

later life (Tang & Chow, 2017). Supiano and Luptak (2014) found that a group bereavement intervention including complicated grief treatment was as successful at addressing grief symptoms and was more time-efficient as the same intervention delivered collectively. They further suggested that group format might be beneficial in that they offer a supportive environment and reduce social isolation, which is particularly common in older adults. Overall, there has been limited systematic research into group delivery of bereavement interventions and most of the studies have only examined grief and depression, not loneliness, social support or anxiety. This study was a randomized controlled trial of a theory-driven, group bereavement intervention, examining a wider range of outcomes.

## Theoretical Framework: The Dual-Process Model

Stroebe and Schut (1999, 2015) introduced a dual-process model of coping with bereavement that consists of three elements: loss-oriented coping, restoration-oriented coping, and oscillation. Loss-oriented coping involves dealing with the loss experience. It includes grief work, or more generally the appraising and processing of all the various aspects of the loss experience. Restoration-oriented coping addresses the life changes which may arise from bereavement, including adjustment to new roles, identities and relationships, and new experiences. Oscillation refers to the inevitable alternation between loss- and restoration-oriented coping processes. Dynamic back-and-forth movement between these two modes of coping predicts better mental and physical health outcomes in the bereaved.

In a departure from conventional bereavement interventions, which are loss-oriented and focus solely on separation distress, the American coauthors (M.C. and D.L.) have paid extra attention to the handling of adjustment to life without the deceased (Caserta, Utz, Lund, Swenson, & de Vries, 2014; Caserta, Lund, Utz, & Tabler, 2016; Lund, Caserta, Utz, & de Vries, 2010). A dual-process bereavement group intervention (DPBGI) was developed and tested systematically. A novel feature of the intervention was that oscillations between restoration-oriented and loss-oriented coping were incorporated into the design of the intervention (Caserta et al., 2016; Lund et al., 2010). The intervention placed equal emphasis on loss- and restoration-oriented coping and was delivered as a group intervention to facilitate mutual learning about restoration-oriented coping. This intervention was used as a model for the intervention described and evaluated here.

Although the expression of grief appears to be similar in Western and Chinese cultures (Li & Prigerson, 2016), there are sociocultural differences in the grieving process (Bonanno, Papa, Lalande, Zhang, & Noll, 2005). In particular, Chen and colleagues (2017) found that dual-process model, which was developed in Western countries, captured the overall coping mechanisms of Chinese

bereaved mothers effectively. Yet at a micro level, cultural factors should be taken into account when exploring the nuanced meanings embedded in the emotional and behavioral coping process. The content of restoration-oriented coping in America that dealt with financial and legal issues as well as social participation were not relevant to Hong Kong Chinese situation as Chinese people rarely discuss their financial situation with others. Chinese people tend to be concerned about their health, particularly after the death of a spouse, thus the themes of health-related topics were added. The themes of attending to life changes and household chores in the American model were kept as they were universal. Moreover, rituals were usually used in the Chinese funerals or bereavement groups for expressing emotions in a structured way. A commonly used letting-go ritual was included in the Chinese model. The participants released fishes into the wild, symbolizing the letting go of pain and suffering attached to the bereavement. The Taoist philosophy considers releasing animals into the wild to be doing a good deed for the deceased. The length of the intervention was reduced to eight sessions. The content was also reorganized and the between-session oscillations were replaced by within-group oscillations from the third to sixth session. Lastly, as Chinese people are pragmatic, the last session included some practical cooking, to help participants start putting what they had learnt about nutrition and self-care into practice. The DPBGI-Chinese (DPBGI-C) group faithfully kept the oscillations between the loss-oriented and restoration-oriented coping, which is the core essence of the model, though the length and part of the content were slightly different from the American one. The themes of loss-oriented coping in the American model were also straightly followed. The DPBGI-C has already been piloted in a sample of older Chinese adults in Hong Kong and was found to be promising (Chow, 2015).

Based on the pilot study of the DPBGI-C, we hypothesized that at the end of the intervention and at a 16-week follow-up, the DPBGI-C participants would exhibit greater improvements in both the primary outcomes, grief reactions, anxiety and depression and the secondary outcomes, loneliness and social support, than loss-oriented bereavement group intervention-Chinese (LOBGI-C) participants.

## Methods

### Research Design

The study was a single-blind cluster randomized controlled trial with two arms. Cluster randomization randomizes centers instead of individuals: all the people from a given center are allocated to the same condition (Meurer & Lewis, 2015). This method was used to avoid contamination of experimental and control group participants at the same study sites. It was also administratively efficient as it was easier to recruit adequate participants for one group than for two groups.

The experimental intervention incorporated restoration-oriented and loss-oriented components as well as oscillations (i.e., DPBGI-C), whereas the control intervention was a conventional loss-oriented intervention (LOBGI-C) comprising the loss-oriented component only, which is typical of the standard of care in community-based bereavement support groups. Both interventions involved weekly sessions over a period of 8 weeks, thus the “quantity” of intervention was the same in both conditions. Participants in both conditions were assessed at three points (preintervention, postintervention, and 16-week follow-up) by trained interviewers.

### Recruitment and Power Analysis

Older adults (60 years or older) whose spouse had died within the previous 2 years were recruited. As [Neimeyer and Currier \(2009\)](#) suggested that it is more appropriate to offer bereavement intervention to those showing intense separation distress after their loss, we only recruited people who scored with relatively high scores on a measure of complicated grief (i.e., > 22 on the Inventory of Complicated Grief). The exclusion criteria were loss of a child or parent in the previous 2 years, remarriage since the bereavement, residence in a long-term care facility, receipt of psychiatric treatment before the death of the spouse (excluding treatment for reactive depression), and impaired mental function sufficient to affect participation in interviews.

Participants were recruited from two types of study site: medical service units (hospitals and geriatric clinics) and social service units (district counseling and social centers for elderly people). Study sites were stratified by nature and type of service and randomized to the experimental and control conditions in order to reduce biases due to differences in setting and service type.

### Procedure

Twelve study sites participated: nine social service units and three medical service units. As a number of service centers declined to participate some types of referral source were underrepresented. One of the centers that agreed to participate did not succeed in recruiting enough participants to run a bereavement group. As the randomization of groups was carried out independently for each center, there was no guarantee that the size of the control and experimental groups would be similar. Seven centers were assigned to the intervention condition and five to the control condition and the number of participants in the two conditions was also uneven.

Staff at the study sites invited widowed older adults who fulfilled the inclusion criteria to participate in the study. Upon completion of the study all participants, received HK\$300 for participating. The University of Hong Kong/Hospital Authority Hong Kong West Cluster Institutional Review Board and the Kowloon West Cluster Research Ethics Committee approved the study (Reference Numbers: UW 13-338 and KW/EX-14-167 [79-05]). All participants provided written consent before taking part in the study.

### Interventions

The experimental and control interventions both consisted of eight sessions. The theme of each session is shown in [Table 1](#). The DPBGI-C integrated new cultural elements into the original DPBGI. For example, dietary concerns and Chinese ideas about health were added as restoration topics and the therapeutic ritual of freeing of fish was introduced in the last session. In addition, participants’ knowledge of cooking and nutrition was tested through shared preparation of a meal in the final session of the DPBGI-C. These modifications were intended to promote a continuing bond,

**Table 1.** Sessional Themes for the Experimental and Control Interventions

Experimental intervention (DPBGI-C)			Control intervention (LOBGI-C)	
Session	Loss-oriented intervention	Restoration-oriented intervention	Session	Loss-oriented intervention
1	L1 <sup>a</sup> : Overview of grief		1	L1: Overview of grief
2	L2: Physical, behavioral and emotional reactions		2	L2: Grief reactions: Physical, behavioral and emotional reactions
3	¾ L3: Relationship with the deceased	¼ R1 <sup>b</sup> : New relationship with the deceased	3	L3: Grief reactions: Emotional reactions
4	½ L4: Relationships with others	½ R2: New relationships with others	4	L4: Relationship with the deceased
5	½ L5: Relationship with self	½ R3: Relationship with self	5	L5: Relationship with the deceased: Unfinished business
6	¼ L6: Food for thought	¾ R4: Food for thought	6	L6: Relationship with the deceased: Guilt
7		R5: Health comes first	7	L7 Family relationships and loneliness
8	1/8 L7: A time to mourn	7/8 R6: A time to dance	8	L8: A time to mourn: Letting go ritual

Note: DPBGI-C = Dual-process bereavement group intervention-Chinese; LOBGI-C = Loss-oriented bereavement group intervention-Chinese.

<sup>a</sup>L denotes loss-oriented component. <sup>b</sup>R denotes restoration-oriented component.



a cultural feature that is important to bereaved Chinese people (Chow & Chan, 2006; Fong & Chow, 2018).

Two user manuals and two facilitator manuals were produced for DPBGI-C and LOBGI-C, respectively. Groups in both conditions were led by experienced bereavement counselors who were mentored and supervised by the first author (A.Y.M.C.). Group leaders were supported by an assistant facilitator from the center which had recruited the participants so that someone was available to handle any adverse or unexpected participant reactions.

## Participants

Two hundred and fifteen older adults provided verbal consent to participation in the study. Nine changed their mind after they had been contacted by the researcher. The ICG scores of 167 potential participants met the inclusion criterion. Fourteen eligible participants did not receive the intervention due to health issues or unexpected family demands, such as caring for grandchildren following the resignation of the family's domestic helpers. In the end, 125 participants received the group intervention (11 DPBGI-C groups and six LOBGI-C groups) (Figure 1). The combined exclusion and dropout rate was similar for the DPBGI-C and LOBGI-C conditions, at 40% and 45%, respectively. Participant characteristics are shown in Table 2. There were no demographic or baseline differences in the primary and secondary outcomes between participants in the experimental and control conditions.

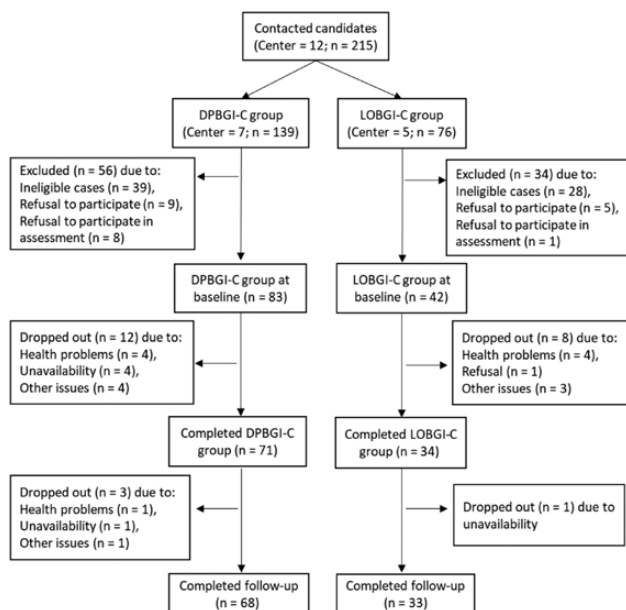


Figure 1. Study CONSORT diagram.

## Measurements

### Primary Outcomes

Grief reactions were measured with the Chinese Inventory of Complicated Grief which comprises 19 items on grief symptoms relating to spousal loss. In a sample of older adults, the Chinese version had an internal reliability of Cronbach's  $\alpha = .92$  (Chow & Fu, 2010).

Emotional reactions in the form of depression and anxiety symptoms were measured with the Chinese version of the *Hospital Anxiety and Depression Scale* (HADS; Leung, Wing, Kwong, Lo, & Shum, 1999). Half of its 14 items measure anxiety and the other half measure depression. Cronbach's  $\alpha$  for the full Chinese-Cantonese version was .86; values for the depression and anxiety subscales were .82 and .77, respectively.

### Secondary Outcomes

Loneliness was conceptualized in terms of two dimensions (i.e., emotional and social loneliness) and measured with the seven-item Chinese version of the *De Jong Gierveld Loneliness Scale* (Leung, de Jong Gierveld, & Lam, 2008). The reliability of the scale ranged from .80 to .90.

Social support was measured with the *Inventory of Social Support* (ISS; Hogan & Schmidt, 2002), which is designed to measure perceived social support following a loss. Comprising five items to which responses are given using a five-point Likert scale, the ISS has been shown to be internally consistent ( $\alpha = .76$ ).

## Statistical Analysis

Data were analyzed using IBM SPSS 24.0 software on the basis of intention-to-treat. In other words, all 125 participants who consent to participate, met the inclusion criteria and were allocated to one of the conditions at baseline were included in the analysis, regardless of subsequent attendance at intervention sessions (Armijo-Olivo, Warren, & Magee, 2009; McCoy, 2017). Missing data were handled by multiple imputation with fully conditional specification. Since 19.2% participants had missing data, 20 imputations (and 50 iterations) were conducted (White, Royston, & Wood, 2011). Background variables (i.e., participants' age, gender, education level, cause of bereavement, time since bereavement, and age of the deceased) and behavioral variables (i.e., grief, anxiety, depression, social and emotional loneliness and perceived social support at all three time-points) were entered into the model used to estimate the missing data. We then used paired  $t$  tests to compare baseline values with postintervention and follow-up values to assess the direct changes and long-term effects of both interventions. Pooled means and standardized deviations were used to compute the effect sizes of differences in Cohen's  $d$  between the conditions for repeated measures (Morris, 2008) (values of Cohen's  $d < 0.33$  indicates small group differences, values between 0.33 and 0.55 indicates moderate differences and values  $> 0.55$  large differences; Lipsey & Wilson, 1993). Next, a linear

**Table 2.** Participants' Characteristics

Characteristics	Total sample ( <i>N</i> = 125)	DPBGI-C group ( <i>n</i> = 83)	LOBGI-C group ( <i>n</i> = 42)	Group comparison ( <i>t</i> or $\chi^2$ ) <sup>a</sup>
Mean age in years ( <i>SD</i> )	74.3 (7.5)	74.3 (7.3)	74.4 (8.0)	0.90
Gender (female)	102 (81.6%)	67 (80.7%)	35 (83.3%)	0.13
Education				5.06
Illiterate	31 (24.8%)	22 (26.5%)	9 (21.4%)	
Private tutor	6 (4.8%)	5 (6.0%)	1 (2.4%)	
Primary school	43 (34.4%)	27 (32.5%)	16 (38.1%)	
Secondary school	39 (31.2%)	27 (32.5%)	12 (28.6%)	
University or above	6 (4.8%)	2 (2.4%)	4 (9.5%)	
Religious (yes)	84 (67.2%)	58 (69.9%)	26 (61.9%)	0.81
Living alone (yes)	88 (70.4%)	59 (71.1%)	29 (69.0%)	0.07
Mean age of deceased spouse ( <i>SD</i> )	78.0 (9.2)	77.7 (9.3)	78.6 (9.0)	0.51
Other bereavement other than children or parents within 2 years (yes)	41 (32.8%)	25 (30.1%)	16 (38.1%)	0.91
Cause of death				
Sudden illness	25 (20.0%)	21 (25.3%)	4 (9.5%)	7.99
Chronic illness	92 (73.6%)	56 (67.5%)	36 (85.7%)	
Accident	6 (4.8%)	5 (6.0%)	1 (2.4%)	
Suicide	1 (0.8%)	1 (1.2%)	0	
Other	1 (0.8%)	0	1 (2.4%)	
Mean time since loss in months ( <i>SD</i> )	15.0 (26.3)	17.4 (31.4)	10.2 (8.9)	-1.93
<i>Pooled mean (SE) of behavioral measures at baseline</i>				
Grief	25.4 (.77)	26.2 (.99)	23.7 (1.18)	1.53
Anxiety	5.0 (.39)	5.2 (.51)	4.7 (.61)	0.61
Depression	8.3 (.50)	8.4 (.62)	8.1 (.83)	0.28
Emotional loneliness	1.8 (.07)	1.8 (.08)	2.0 (.12)	-1.50
Social loneliness	1.5 (.12)	1.5 (.15)	1.5 (.21)	0.26
Perceived social support	15.9 (.58)	16.0 (.74)	15.8 (.95)	0.14

Note: <sup>a</sup>Continuous variables were compared using one-sample *t* tests; categorical variables were compared using the  $\chi^2$  test. All differences were *p* > .05.

mixed model was used to examine the longitudinal intervention effects. The model included one categorical random effect (Participant), one categorical fixed effect (Condition: DPBGI-C vs LOBGI-C), one ordinal fixed effect (Time: baseline vs post-test vs 16-week follow-up), and the Condition  $\times$  Time interaction. Pooled results of *F* test by the fixed effect of Condition  $\times$  Time estimated the difference of effects between the two intervention methods. Finally, we compared the magnitude of the two interventions by calculating the changes in score between baseline and the post-treatment and follow-up assessments for both conditions and assessing the difference between the conditions using a one-sided, two-sample *t* test.

The sample of 101 participants who completed the three time points of data collection (i.e., nonimputed data) was included to evaluate the intervention effects in terms of changes within the group over time and difference between the changes of groups over time.

## Results

### Primary Outcomes

The intention-to-treat analysis showed that participants in both groups had lower levels of grief reaction and

depression at the postintervention and follow-up assessments (Table 3). Effect sizes for changes in all primary outcome variables were higher for the DPBGI-C than the LOBGI-C, with the exception of grief at follow-up. Only the DPBGI-C produced a reduction in anxiety. There were Condition  $\times$  Time effects for both grief ( $F(2, 123) = 3.37, p < .05$ ) and anxiety ( $F(2, 123) = 3.39, p < .05$ ).

The effect sizes for differences of the two groups in change scores at postintervention and follow-up are reported in Table 4. At the postintervention assessment, DPBGI-C was found to have statistically significant better results than the LOBGI-C with moderate effective sizes (Cohen's *d* ranged from 0.35 to 0.56) in all three primary outcome variables. At follow-up assessment, DPBGI-C still had a statistical significant improvement in anxiety than LOBGI-C, with a moderate effect size ( $d = 0.41$ ).

The findings were similar when only the nonimputed data (*N* = 101) were analyzed. Thus, our first hypothesis, that the DPBGI-C would produce a greater improvement in the primary outcome variables than the LOBGI-C, was supported.



**Table 4.** Change Scores for Each Condition and Comparisons of the Differences in Effect Sizes

	Intention-to-treat (N = 125)			Nonimputed data (N = 101)		
	LOBGI-C group Pooled mean (SE)	DPBGI-C group Pooled mean (SE)	Effect size (Cohen's <i>d</i> ) <sup>a</sup>	LOBGI-C group Mean (SE)	DPBGI-C group Mean (SE)	Effect size (Cohen's <i>d</i> ) <sup>a</sup>
Grief						
Baseline vs postintervention	7.20 (1.36)	12.04 (1.33)	0.56**	7.21 (1.23)	12.19 (9.58)	0.55**
Baseline vs follow-up	7.08 (1.63)	8.61 (1.37)	0.18	7.58 (1.59)	7.63 (11.46)	0.01
Anxiety						
Baseline vs postintervention	0.4 (0.67)	2.44 (0.53)	0.46**	-0.09 (0.6)	2.31 (4.1)	0.56**
Baseline vs follow-up	-0.45 (0.77)	1.36 (0.54)	0.41*	-0.97 (0.74)	1.19 (4.26)	0.51**
Depression						
Baseline vs postintervention	1.78 (0.85)	3.75 (0.72)	0.35*	1.36 (0.8)	3.09 (5.25)	0.32*
Baseline vs follow-up	1.85 (0.9)	3.08 (0.7)	0.22	1.64 (0.81)	2.24 (5.17)	-0.11
Emotional loneliness						
Baseline vs postintervention	0.05 (0.13)	0.35 (0.1)	0.39*	0.03 (0.13)	0.29 (0.77)	0.35*
Baseline vs follow-up	0 (0.15)	0.48 (0.11)	0.63**	0 (0.15)	0.4 (0.84)	-0.53**
Social loneliness						
Baseline vs postintervention	-0.09 (0.22)	0.57 (0.18)	0.50**	-0.12 (0.19)	0.5 (1.34)	0.47**
Baseline vs follow-up	-0.09 (0.24)	0.29 (0.18)	0.28	-0.03 (0.21)	0.21 (1.32)	0.18
Social support						
Baseline vs postintervention	-2.53 (1.00)	-3.23 (0.84)	0.11	-2.52 (1.06)	-3.13 (7.12)	0.09
Baseline vs follow-up	-1.09 (0.98)	-2.41 (0.82)	0.20	-1.03 (0.93)	-2.22 (6.32)	0.18

Note: <sup>a</sup>Cohen's *d* was obtained by dividing the difference in change by the pooled baseline standard deviation; *p*-values are for one-sided tests of the treatment effect, i.e., Hypothesis: change in DPBGI-C > change in LOBGI-C group.

\**p* < .05, \*\**p* < .01.

## Secondary Outcomes

DPBGI-C participants also experienced reductions in emotional and social loneliness, but LOBGI-C participants did not (Table 3). There was a Condition × Time interaction for both types of loneliness. LOBGI-C participants reported higher levels of social support after the intervention, but the change was smaller at the follow-up assessment, whereas DPBGI-C participants reported a larger increase in social support, which was sustained at follow-up.

The reduction in loneliness was greater in the DPBGI-C condition than the LOBGI-C condition (Table 4). The effect sizes for the differences between two groups in emotional and social loneliness at postintervention were *d* = 0.39 and *d* = 0.50 respectively. The effect size for the difference in emotional loneliness increased to 0.63 at the follow-up assessment.

Analysis of the nonimputed data produced similar results with respect to the between- and within-condition comparisons. In summary, the second hypothesis, that the DPBGI-C would produce a greater improvement in secondary outcomes than the LOBGI-C, was also supported.

## Discussion

The results of this trial show that DPBGI-C was statistically superior to the traditional LOBGI-C in reducing grief, anxiety, and loneliness in widowed older adults. Although the two interventions had the same (group) format and similar levels of input, the DPBGI-C also proved superior as a method of increasing participants' perception of the social support available to them. Currier and colleagues (2008) concluded from an analysis of 61 outcome studies of bereavement interventions that universal intervention (for everyone) generally had no effect. There were only mild effects for selective intervention (to high-risk groups) or moderately large effect for indicated (to bereaved people experiencing high distress) intervention. In contrast, both interventions used in this study produced much higher effect sizes in grief reduction relative to baseline, as shown in Table 3. Similarly, both interventions also produced reductions in depression that were of higher magnitude than the reductions in the indicated interventions found in the review of Currier et al. (2008). The reduction of depression in the DPBGI-C was found to be much larger than



the LOBGI-C. The LOBGI-C focused on loss, whereas only half the content of the DPBGI-C did so. It appears that the restoration-oriented content included the DPBGI-C provided additional benefits, which supports the idea that restoration-oriented coping processes contribute crucially to adjustment to bereavement (Stroebe et al., 1999, 2010). Furthermore, the findings of our trial are consistent with those relating to use of the original DPBGI in the United States. The original DPBGI was found to contribute to changes in grief and depression (Utz, Caserta, & Lund, 2013), but its effects were similar to those of a traditional grief intervention. In contrast, our version of the DPBGI-C did produce greater changes in grief than the traditional intervention with which it was compared, indicating that the feasibility and effectiveness of a bereavement care may be improved by cultural adaptation.

The DPBGI-C reduced anxiety relative to baseline both immediately after the 8-week intervention and at the 16-week follow-up, whereas the LOBGI-C did not affect anxiety. As the restoration-oriented topics included guidance on practical coping strategies such as building social relationships, following a healthy diet and taking care of one's health, it is plausible to suggest that such practical coping strategies account for the reduction in anxiety observed following the DPBGI-C, particularly anxiety related to the challenges of facing life without the deceased. These postintervention effect sizes of changes in bereavement outcomes were similar to the recent finding of comparing complicated grief treatment with interpersonal psychotherapy (Glickman, Shear, & Wall, 2016).

The within group effects of the interventions were smaller at the follow-up assessment than immediately after the intervention, but still detectable. Again, our results are better than those reported in the meta-analyses of the long-term effects of indicated intervention (Currier et al., 2008). For between group analyses, the effect sizes in grief and depression at the postintervention assessment were greater than the average effect sizes reported for bereavement interventions in the earlier meta-analysis (Currier et al., 2008). Although the between-condition differences were not statistically significant at the follow-up assessment, they were still greater in absolute terms than the comparable differences calculated in the meta-analysis, which were also statistically nonsignificant (Currier et al., 2008). Notably, the between-group differences in the meta-analysis relate to comparisons of an intervention with a no-intervention condition (a waiting-list control group or placebo). We compared our novel intervention with a traditional, grief-focused intervention and had therefore anticipated that effect sizes would be much lower than in studies comparing an intervention group with a no-treatment group.

This study investigated the impact of bereavement interventions on loneliness, a facet of bereavement that has generally been ignored in earlier intervention studies (Nam, 2016; Shear et al., 2014; Supiano & Luptak, 2014). The superior effect of the DPBGI-C on loneliness is a surprising

result. Both interventions were delivered in a very similar format—over eight sessions, with groups of similar sizes. All the groups were facilitated by social workers with similar professional experience. There were also no differences between the backgrounds of participants receiving the two interventions. Therefore the difference in the content of the two group interventions probably explains their differential effects on loneliness and perceived support. The loss-orientation of the LOBGI-C may draw participants' attention to their unique relationship with their deceased spouse and is a more personal and internal process. In comparison, half of the time in the DPBGI-C is spent on restoration-oriented topics, which are more external and are shared among the participants. We suggest that discovering common experiences and sharing restoration-oriented coping processes helps to create a social support network among a group receiving the DPBGI-C, as well as reduces the loneliness. The LOBGI-C focused on the relationship with the deceased. It is likely that simply sharing and thinking about the deceased without also working on restoration-oriented coping fails to address a bereaved person's yearning and has no effect on emotional loneliness. Only the DPBGI-C reduced social loneliness and the reduction was not maintained at follow-up. As the postintervention evaluation took place a week after the eight consecutive weekly meetings that comprised the interventions, the temporary reduction in social loneliness might reflect group members' sense of being part of a social network. As there was no further contact among group members between the postintervention and follow-up, this sense of being part of a social network may have dissipated fairly quickly, leading to a rebound in social loneliness, although in descriptive terms social loneliness was still lower at the follow-up assessment than at baseline.

This study has limitations. One would expect the decision by a number of service centers not to participate in the study, the unequal number of intervention and control groups, and participant drop-out to have affected the findings. However, there were no demographic or baseline differences between participants assigned to the two conditions. Similarly, comparison of outcome measures in the intention-to-treat and completed intervention analyses revealed no differences. Thus, it appears that the impact of these limitations was not as great as might have been expected. It took an unexpectedly long time to recruit adequate numbers of participants. All study participants were widowed older Chinese adults and the majority of the sample was women. We used stringent selection criteria, including only those who reported high levels of grief and had not lost another significant family member in the previous 2 years. Consequently, any generalization of the findings to other bereaved populations should be made with caution.

A more rigorous study design would have included a waiting-list control condition in addition to the two conditions compared here, but this was precluded by concerns

that it would be unethical to place participants—especially those display high levels of grief—on a waiting list for at least 16 weeks, until all data had been collected from the intervention groups. Ideally, another arm of comparison with the original DPBGI will offer more insights about the suitability of the translation. As this study is hoped to provide evidence of effective bereavement intervention to Chinese widowed persons, the commonly-used approach in Chinese bereaved population was adopted instead. In addition the centers would have refused to take part in the study if it had included a 16-week waiting-list control condition. Assessment after longer follow-up period would reveal more information. The RCT study of treatment of complicated grief in elderly persons by Shear et al.'s (2014) randomized controlled trial of a 16-week intervention used a 20-week follow-up and Bryant et al. (2014) used a 26-week follow-up when assessing a 14-week intervention. Our use of a 16-week follow-up period for an 8-week intervention is in line with practice in other studies.

Despite these limitations, our study addresses a significant gap in the bereavement intervention literature. It is a good example of the development of a theoretically-grounded intervention and subsequent rigorous testing via a randomized controlled trial using a traditional intervention as the control treatment. The experimental intervention is a scrupulous cultural adaptation of a model developed in the West. Klass and Chow (2011) argued that culture prescribes acceptable grief and affects how grief is handled; nevertheless, here we have reported the successful cultural translation of a bereavement intervention.

This study advances bereavement research methodology in several ways. First, it extends the common outcomes of grief and depression to include anxiety, loneliness and social support. Second, the control condition involved a commonly-used bereavement-specific group intervention (i.e., treatment as usual) of similar duration to the experimental intervention, whereas most previous studies of the efficacy of group bereavement interventions used waiting-list controls or non-compatible control group interventions. Although a review by Neimeyer and Currier (2009) noted the existence of a very small population who experience "treatment-induced distress," a review by Waller et al. (2016) did not find any group intervention that produced worse outcomes than a no-intervention condition. Still, the inclusion of the commonly adopted intervention is more ethically appropriate.

Third, as Neimeyer and Currier (2009) concluded that bereavement interventions have the greatest impact on those showing the most distress; we offered our interventions as indicated interventions rather than as universal interventions. This is in line with the suggestion that potential users of bereavement service services should be screened (Aoun, Rumbold, Howting, Bolleter, & Breen, 2017) and may partly explain why we observed bigger effects than Utz et al. (2014). Moreover, we carried out both intention-to-treat and completed intervention analyses and found that the results were comparable.

This study provides empirical support for the dual-process model of bereavement. It also sheds light on intervention "dosage," particularly in relation to loss-oriented coping techniques. Although the loss-oriented component of the DPBGI-C took up only half the time of the LOBGI-C (which focused exclusively on loss-oriented techniques), it produced greater reductions in grief, depression, and loneliness in DPBGI-C, leading to the somewhat surprising conclusion that in this context, less is more. The introduction of restoration-oriented components apparently played a crucial role in reducing anxiety and emotional loneliness in DPBGI-C participants. Further analyses will be undertaken to explore the mechanism underlying the changes induced by the intervention.

The practical contribution of this study is that it demonstrates the effectiveness of a group bereavement intervention, complementing existing evidence of the effectiveness of one-to-one complicated grief treatment (Shear et al., 2014, 2016) and cognitive behavioral therapy (Bryant et al., 2014). This study showed that the DPBGI-C is effective for bereaved older Chinese adults experiencing particular difficulty in coping with their loss. The better result might be partially attributed to the collective nature of Chinese, which might not be totally applicable to participants of other cultures who favor individualism. Nevertheless, this group alternative may involve less input of professional resources for each bereaved person, yet achieve the same, if not a better, outcome. The group format is more resource-efficient than one-to-one treatment and provides added value, as group members form a social support network and realize that others share some of their experiences and feelings. Moreover, because manuals have been produced for the DPBGI-C it should be possible for others to deliver the intervention.

## Conclusions

Based on systematic analysis of the evidence collected we conclude that the DPBGI-C is more effective than traditional bereavement group interventions. Added to the limited efficacy studies of bereavement intervention for bereaved persons developed in the West, this study contributes evidence of bereavement intervention effectiveness for Chinese bereaved persons. The adoption of the dual-process model as the theoretical framework also allowed us to shed light on the role of restoration in bereavement interventions.

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## Conflict of Interest

None reported.

## References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: APA Press.
- Aoun, S. M., Breen, L. J., Howting, D. A., Rumbold, B., McNamara, B., & Hegney, D. (2015). Who needs bereavement support? A population based survey of bereavement risk and support need. *PLOS One*, 10, e0121101. doi:10.1371/journal.pone.0121101
- Aoun, S. M., Rumbold, B., Howting, D., Bolleter, A., & Breen, L. J. (2017). Bereavement support for family caregivers: The gap between guidelines and practice in palliative care. *PLOS One*, 12, e0184750. doi:10.1371/journal.pone.0184750
- Armijo-Olivo, S., Warren, S., & Magee, D. (2009). Intention to treat analysis, compliance, drop-outs and how to deal with missing data in clinical research: A review. *Physical Therapy Reviews*, 14, 36–49. doi:10.1179/174328809X405928
- Boelen, P. A. (2016). Improving the understanding and treatment of complex grief: An important issue for psychotraumatology. *European Journal of Psychotraumatology*, 7, 1–9. doi:10.3402/ejpt.v7.32609
- Bonanno, G. A., Papa, A., Lalande, K., Zhang, N., & Noll, J. G. (2005). Grief processing and deliberate grief avoidance: A prospective comparison of bereaved spouses and parents in the United States and the People's Republic of China. *Journal of Consulting and Clinical Psychology*, 73, 86–98. doi:10.1037/0022-006X.73.1.86
- Bonanno, G. A., Wortman, C. B., & Nesse, R. M. (2004). Prospective patterns of resilience and maladjustment during widowhood. *Psychology and Aging*, 19, 260–271. doi:10.1037/0882-7974.19.2.260
- Bryant, R. A., Kenny, L., Joscelyne, A., Rawson, N., Maccallum, F., Cahill, C., ... Nickerson, A. (2014). Treating prolonged grief disorder: A randomized clinical trial. *JAMA Psychiatry*, 71, 1332–1339. doi:10.1001/jamapsychiatry.2014.1600
- Caserta, M. S., Lund, D. A., Utz, R. L., & Tabler, J. L. (2016). "One Size Doesn't Fit All" - partners in hospice care, an individualized approach to bereavement intervention. *Omega*, 73, 107–125. doi:10.1177/0030222815575895
- Caserta, M., Utz, R., Lund, D., Swenson, K. L., & de Vries, B. (2014). Coping processes among bereaved spouses. *Death Studies*, 38, 145–155. doi:10.1080/07481187.2012.738767
- Census and Statistics Department. (2017). *Population (Excluding foreign domestic helpers) by age, year, sex, and marital status*. Retrieved March 4, 2018, from <http://www.byecensus2016.gov.hk/en/bc-mt.html>
- Chen, L., Fu, F., Sha, W., Chan, C. L. W., & Chow, A. Y.M., (2017). Mothers coping with bereavement in the 2008 China Earthquake: A dual process model analysis. *OMEGA: Journal of Death and Dying*. Advance online publication. doi:10.1177/0030222817725181
- Chen, Y., Hicks, A., & While, A. E. (2014). Loneliness and social support of older people living alone in a county of Shanghai, China. *Health & Social Care in the Community*, 22, 429–438. doi:10.1111/hsc.12099
- Cheng, S. T., Chan, T. W., Li, G. H., & Leung, E. M. (2014). Childlessness and subjective well-being in Chinese widowed persons. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 69, 48–52. doi:10.1093/geronb/gbt049
- Chow, A. Y. M. (2015). Integrating research into bereavement interventions. In G. Christ, C. Messner, & L. Behar (Eds.). *Handbook of oncology social work: Psychosocial care of the patient with cancer* (pp. 571–578). New York, NY: Oxford University Press.
- Chow, A. Y. M., & Chan, C. L. W. (2006). Bereavement care in Hong Kong: Past, present and future. In C. L. W. Chan & A. Y. M. Chow (Eds.), *Death, dying and bereavement: The Hong Kong Chinese experience* (pp. 253–260). Hong Kong: Hong Kong University Press.
- Chow, A. Y. M., & Fu, F. (2010). *The Inventory of Complicated Grief: The Chinese version and its psychometric validation*. Hong Kong SAR, China: Department of Social Work and Social Administration, University of Hong Kong. Unpublished manuscript.
- Currier, J. M., Neimeyer, R. A., & Berman, J. S. (2008). The effectiveness of psychotherapeutic interventions for bereaved persons: A comprehensive quantitative review. *Psychological Bulletin*, 134, 648–661. doi:10.1037/0033-2909.134.5.648
- Dahlberg, L., Agahi, N., & Lennartsson, C. (2018). Lonelier than ever? Loneliness of older people over two decades. *Archives of Gerontology and Geriatrics*, 75, 96–103. doi:10.1016/j.archger.2017.11.004
- Eisma, M. C., Boelen, P. A., van den Bout, J., Stroebe, W., Schut, H. A., Lancee, J., & Stroebe, M. S. (2015). Internet-based exposure and behavioral activation for complicated grief and rumination: A randomized controlled trial. *Behavior Therapy*, 46, 729–748. doi:10.1016/j.beth.2015.05.007
- Fong, C. H. C., & Chow, A. Y. M. (2018). Continuing bond as a double-edged sword in bereavement? In D. Klass & E. M. Steffen (Eds.), *Continuing bonds in bereavement: New directions for research and practice* (pp. 276–286). New York, NY: Routledge.
- Glickman, K., Shear, M. K., & Wall, M. (2016). Exploring outcomes related to anxiety and depression in completers of a randomized controlled trial of complicated grief treatment. *Clinical Psychology & Psychotherapy*, 23, 118–124. doi:10.1002/cpp.1940
- Goodwin, R., Cook, O., & Yung, Y. (2001). Loneliness and life satisfaction among three cultural groups. *Personal Relationships*, 8, 225–230. doi:10.1111/j.1475-6811.2001.tb00037.x
- Hahn, E. A., Cichy, K. E., Small, B. J., & Almeida, D. M. (2014). Daily emotional and physical reactivity to stressors among widowed and married older adults. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 69, 19–28. doi:10.1093/geronb/gbt035
- Hogan, N. S., & Schmidt, L. A. (2002). Testing the grief to personal growth model using structural equation modeling. *Death Studies*, 26, 615–634. doi:10.1080/07481180290088338
- Kersting, A., Brähler, E., Glaesmer, H., & Wagner, B. (2011). Prevalence of complicated grief in a representative

- population-based sample. *Journal of Affective Disorders*, **131**, 339–343. doi:10.1016/j.jad.2010.11.032
- Klass, D., & Chow, A. Y. M. (2011). Culture and ethnicity in experiencing, policing, and handling grief. In R. A. Neimeyer, H. Winokuer, D. L. Harris, & G. Thornton (Eds.), *Grief and bereavement in contemporary society* (pp. 341–353). New York: Routledge.
- Leung, G. T., de Jong Gierveld, J., & Lam, L. C. (2008). Validation of the Chinese translation of the 6-item De Jong Gierveld Loneliness Scale in elderly Chinese. *International Psychogeriatrics*, **20**, 1262–1272. doi:10.1017/S1041610208007552
- Leung, C. M., Wing, Y. K., Kwong, P. K., Lo, A., & Shum, K. (1999). Validation of the Chinese-Cantonese version of the hospital anxiety and depression scale and comparison with the Hamilton Rating Scale of Depression. *Acta Psychiatrica Scandinavica*, **100**, 456–461.
- Li, J., & Prigerson, H. G. (2016). Assessment and associated features of prolonged grief disorder among Chinese bereaved individuals. *Comprehensive Psychiatry*, **66**, 9–16. doi:10.1016/j.comppsy.2015.12.001
- Lipsey, M. W., & Wilson, D. B. (1993). The efficacy of psychological, educational, and behavioral treatment. Confirmation from meta-analysis. *The American Psychologist*, **48**, 1181–1209.
- Litz, B. T., Schorr, Y., Delaney, E., Au, T., Papa, A., Fox, A. B., ... Prigerson, H. G. (2014). A randomized controlled trial of an internet-based therapist-assisted indicated preventive intervention for prolonged grief disorder. *Behaviour Research and Therapy*, **61**, 23–34. doi:10.1016/j.brat.2014.07.005
- Lund, D., Caserta, M., Utz, R., & De Vries, B. (2010). Experiences and early coping of bereaved spouses/partners in an intervention based on the dual process model (dpm). *Omega*, **61**, 291–313. doi:10.2190/OM.61.4.c
- Maercker, A., Brewin, C. R., Bryant, R. A., Cloitre, M., van Ommeren, M., Jones, L. M., ... Reed, G. M. (2013). Diagnosis and classification of disorders specifically associated with stress: Proposals for ICD-11. *World Psychiatry*, **12**, 198–206. doi:10.1002/wps.20057
- McCoy, C. E. (2017). Understanding the intention-to-treat principle in randomized controlled trials. *The Western Journal of Emergency Medicine*, **18**, 1075–1078. doi:10.5811/westjem.2017.8.35985
- Meurer, W. J., & Lewis, R. J. (2015). Cluster randomized trials: Evaluating treatments applied to groups. *JAMA*, **313**, 2068–2069. doi:10.1001/jama.2015.5199
- Morris, S. B. (2008). Estimating effect sizes from pretest-posttest-control group designs. *Organizational Research Methods*, **11**, 364–386. doi:10.1037/a0014699
- Nam, I. (2016). Complicated grief treatment for older adults: The critical role of a supportive person. *Psychiatry Research*, **244**, 97–102. doi:10.1016/j.psychres.2016.07.044
- Neimeyer, R. A., & Currier, J. M. (2009). Grief therapy: Evidence of efficacy and emerging directions. *Current Directions in Psychological Science*, **18**, 352–356. doi:10.1111/j.1467-8721.2009.01666.x
- Perng, A., & Renz, S. (2018). Identifying and treating complicated grief in older adults. *The Journal of Nurse Practitioners*, **14**, 289–295. doi:10.1016/j.nur.pra.2017.12.001
- Rosner, R., Pfoh, G., Kotoučová, M., & Hagl, M. (2014). Efficacy of an outpatient treatment for prolonged grief disorder: A randomized controlled clinical trial. *Journal of Affective Disorders*, **167**, 56–63. doi:10.1016/j.jad.2014.05.035
- Schut, H., & Stroebe, M. S. (2005). Interventions to enhance adaptation to bereavement. *Journal of Palliative Medicine*, **8**(Suppl. 1), S140–S147. doi:10.1089/jpm.2005.8.s-140
- Shear, K. M., Reynolds III, C. F., Simon, N. M., Zisook, S., Wang, Y., Mauro, C., ... Skritskaya, N. (2016). Optimizing treatment of complicated grief: A randomized clinical trial. *JAMA Psychiatry*, **73**, 685–694. doi:10.1001/jamapsychiatry.2016.0892
- Shear, M. K., Wang, Y., Skritskaya, N., Duan, N., Mauro, C., & Ghesquiere, A. (2014). Treatment of complicated grief in elderly persons: A randomized clinical trial. *JAMA Psychiatry*, **71**, 1287–1295. doi:10.1001/jamapsychiatry.2014.1242
- Simon, N. M. (2015). Increasing support for the treatment of complicated grief in adults of all ages. *JAMA*, **313**, 2172–2173. doi:10.1001/jama.2015.105
- Stroebe, M., & Schut, H. (1999). The dual process model of coping with bereavement: Rationale and description. *Death Studies*, **23**, 197–224. doi:10.1080/074811899201046
- Stroebe, M., & Schut, H. (2010). The dual process model of coping with bereavement: A decade on. *Omega*, **61**, 273–289. doi:10.2190/OM.61.4.b
- Stroebe, M., & Schut, H. (2015). Family matters in bereavement: Toward an integrative intra-interpersonal coping model. *Perspectives on Psychological Science*, **10**, 873–879. doi:10.1177/1745691615598517
- Supiano, K. P., & Luptak, M. (2014). Complicated grief in older adults: A randomized controlled trial of complicated grief group therapy. *The Gerontologist*, **54**, 840–856. doi:10.1093/geront/gnt076
- Tang, S., & Chow, A. Y. M. (2017). How do risk factors affect bereavement outcomes in later life? An exploration of the mediating role of dual process coping. *Psychiatry Research*, **255**, 297–303. doi:10.1016/j.psychres.2017.06.001
- Utz, R. L., Caserta, M., & Lund, D. (2013). An evaluation of the living after loss intervention - Part 1: Do bereavement-related outcomes vary by the content of support groups? *Grief Matters*, **16**, 32–35.
- Utz, R. L., Swenson, K. L., Caserta, M., Lund, D., & deVries, B. (2014). Feeling lonely versus being alone: Loneliness and social support among recently bereaved persons. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, **69**, 85–94. doi:10.1093/geronb/gbt075
- Waller, A., Turon, H., Mansfield, E., Clark, K., Hobden, B., & Sanson-Fisher, R. (2016). Assisting the bereaved: A systematic review of the evidence for grief counselling. *Palliative Medicine*, **30**, 132–148. doi:10.1177/0269216315588728
- Weiss, R. S. (1973). *Loneliness: The experience of emotional loneliness and social isolation*. Cambridge, MA: The MIT Press.
- White, I. R., Royston, P., & Wood, A. M. (2011). Multiple imputation using chained equations: Issues and guidance for practice. *Statistics in Medicine*, **30**, 377–399. doi:10.1002/sim.4067
- Wittouck, C., Van Autreve, S., De Jaegere, E., Portzky, G., & van Heeringen, K. (2011). The prevention and treatment of complicated grief: A meta-analysis. *Clinical Psychology Review*, **31**, 69–78. doi:10.1016/j.cpr.2010.09.005