

Effects of Emotional Expression on Adjustment to Spousal Loss Among Older Adults

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The purpose of this study was to investigate the therapeutic effects of verbally disclosing thoughts and feelings about loss of spouse in distressed bereaved older adults ($N = 30$; M age = 67.0; age range = 51 to 85) participating in an exposure intervention according to the paradigm developed by Pennebaker (1985). Participants were randomly assigned to treatment (four 20-minute vocal expression sessions within a 2-week period) or delayed treatment. No immediate effects of treatment were found with the exception that participants receiving treatment showed a decrease in hopelessness relative to participants in delayed treatment. After treatment was provided to the delayed-treatment group, combined data from both groups indicated significant decreases in hopelessness, intrusive thoughts, obsessive-compulsive symptoms, and depression from baseline to 1 month follow-up. Feelings of painfulness and negative affect decreased steadily over sessions. Correlational analyses indicated that higher levels of arousal of negative affect were associated with greater decreases in depression, hopelessness, intrusive thoughts, and avoidance from pretest to follow-up, whereas positive affect appeared unrelated to therapeutic change. This research suggests that confronting painful feelings can potentially reduce psychological distress among bereaved elderly. Further, the arousal of painful emotions in particular appears related to therapeutic outcome. Implications for clinical practice and research are discussed.

Death of a spouse often has a powerful impact on the life and health of older adults. Studies have shown that death often causes intense emotional reactions that contribute to increased rates of depression (Clayton, 1990), physical illness (Stroebe & Stroebe, 1987), and early death (Bowling, 1988). In their classic report, Holmes and Rahe (1967) identified death of a spouse as the *most* stressful life event, requiring more adjustment than any other trauma. According to Meuser, Davies, and Marwit (1994-1995), loss of

a spouse in the elderly years can cause a greater disruption in the life of the individual than the loss of a spouse at an earlier age. This impact may be more devastating because the loss often occurs in conjunction with other stressors associated with that life stage, including medical, sensory, or ambulatory disability, financial strain, adjustment to retirement, and loneliness. Negative psychological effects in some elders continue to be present 2 years or more after the loss of a spouse (Thompson, Gallagher-Thompson, Futterman, Gilewski, & Peterson, 1991). Consequently, development of psychotherapeutic interventions that reduce the negative psychological effects of bereavement in the elderly are needed.

Focused writing/talking is one such strategy that has been shown empirically to reduce negative feelings about many types of traumatic events. Numerous studies have been conducted that all followed a similar paradigm developed by Pennebaker (1985): participants write or talk about traumatic or depressing experiences over several days while comparison participants describe superficial events. Across many studies, therapeutic effects of focused writing or focused talking were substantial. For example, in the Pennebaker (1985) and Pennebaker and Beall (1986) studies, college students wrote poignant essays about personal losses and stressors in the traumatic condition. Writing about these events resulted in an immediate increase in negative mood but longer-term mental and physical health benefits. Pennebaker, Kiecolt-Glaser, and Glaser (1988) subsequently found that this procedure improved immune functioning, a finding replicated by others as well (e.g., Esterling, Antoni, Fletcher, Margulies, & Schneiderman, 1994; Esterling, Antoni, Kumar, & Schneiderman, 1990). In a related study, Greenberg and Stone (1992) demonstrated that participants who disclosed more subjectively severe traumas reported greater decreases in physical symptoms relative to participants with less severe traumas at a 2-month follow-up. Next, a series of studies by Murray and colleagues (Donnelly & Murray, 1991; Murray, Lamnin, & Carver, 1989; Segal & Murray, 1994) found that writing personal essays and completing psychotherapy interviews were equally effective, although there were some differences in the therapeutic processes.

The large body of data associated with the Pennebaker paradigm suggests that focused and intense expression of feelings about a traumatic loss can result in substantial emotional improvement. To date, however, there has been little systematic investigation into the role of emotional expression on recovery from spousal loss in the elderly. Indeed, this research is particularly important because the loss of a spouse is a traumatic event which requires significant psychological adjustment, with often long-lasting consequences without appropriate intervention. Unfortunately, many of today's older adults are reluctant to seek traditional mental health services because of wanting to remain independent, of unfamiliarity with benefits of counseling, or because of the stigma associated with psychiatric care (Lazarus & Sadavoy, 1988).

Clearly, there is a need for easily accessible, effective, short-term strategies that can assist elders in coping with the loss of a spouse. Therefore, the purpose of the present study was to determine the effects of emotional expression on adjustment to the loss of a spouse among older persons. We hypothesized that older adults in the treatment group will show improved adaptation to the loss as measured by reduced distress relative to controls. We also hypothesized that, after delayed-treatment controls participate in the focused talking sessions, participants in both treatment groups will show positive therapeutic effects at 1-month follow-up. Although it is anticipated that the degree of painfulness as well as negative affect associated with thinking about one's spouse will

initially increase from pre to post on vocal expression-session days, we hypothesized that negative affect and painfulness will gradually decrease over sessions. Lastly, we wanted to investigate whether arousal of positive or negative feelings had a differential impact on therapeutic outcome.

METHOD

Participants

The final sample was made up of 30 Caucasian elders, ranging in age from 51 to 85 years ($M = 67$) who volunteered to participate in the study. Participants were recruited from advertisements in local newspapers and from local senior centers, with the requirement that they were still bothered at some level regarding the loss. Participants were randomly assigned within gender to either treatment (vocal expression) or delayed-treatment groups (see Table 1). There were 15 participants in each group: treatment, 3 males and 12 females; delayed treatment, 3 males and 12 females. Overall, 33 participants began the study. Three participants dropped out after the first session and none of their data were included in the analyses. One participant in the delayed-treatment condition dropped out after the first two baseline sessions but prior to the vocal expression sessions, and these baseline data were included in the analyses. Thus, at 1-month follow-up, there were 29 participants: treatment group (15) and delayed-treatment group (14). The two groups were not significantly different as to drop out frequency.

The mean length of marriage was 33.9 years (range = 7-59 years), mean length of time since the death of the participant's spouse was 16.6 months (range = 3-39 months), and mean education level was 14.5 years (high school plus 2.5 years of post high school education) with a range of 8-20 years. The mean overall quality and satisfaction of the

TABLE 1. Demographic Means and (Standard Deviations)

Variable	Treatment Group	Delayed-Treatment Group	Total Sample
Age	67.80 (10.04)	66.20 (9.72)	67.00 (9.74)
Sex	12 F 3M	12 F 3 M	24 F 6M
Ethnicity	15 White	15 White	30 White
Length of Marriage in Years	32.00 (16.16)	35.80 (13.18)	33.90 (14.62)
Time Since Death in Months	14.53 (9.55)	18.60 (10.40)	16.57 (10.02)
Education in Years	15.40 (2.64)	13.60 (2.35)	14.50 (2.62)
Quality of Relationship (1-100 Scale)	87.53 (18.92)	85.93 (13.88)	86.73 (16.33)

relationship with the spouse was 86.7 on a scale of 1 to 100 (range = 45-99). Table 1 shows the means and standard deviations for all demographics.

Outcome Measures

Brief Symptom Inventory (BSI; Derogatis, 1993). The BSI is a 53-item self-report questionnaire designed to reflect an individual's current psychological symptom status. The BSI provides scaled scores on nine symptom patterns (somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism) as well as an overall measure of distress, the Global Severity Index (GSI). Individuals respond to the items using a 5-point scale that has anchors at not at all (1) to extremely (5). The BSI has high reliability and validity (Derogatis, 1993) and is widely used in clinical practice and research.

Geriatric Depression Scale (GDS; Yesavage et al., 1983). The GDS is a 30-item self-completed, yes/no questionnaire devised as a simple screening test for depression in the elderly. For each item, the respondent indicates whether or not he or she is experiencing a symptom associated with depression, and the total scores can range from 0 to 30, with higher scores indicating higher levels of depression. The GDS has excellent internal consistency, good test-retest reliability, and strong concurrent validity with older adults (see Yesavage et al., 1983; also see Olin, Schneider, Eaton, Zemansky, & Pollock, 1992). The GDS was selected because it is the most widely used and accepted measure of depression in psychotherapeutic studies of older persons.

Geriatric Hopelessness Scale (GHS; Fry, 1986). The GHS is a 30-item, yes/no scale to assess pessimism and hopelessness in elderly individuals. Items refer to the affective, motivational, and cognitive components of hopelessness in the respondent. The GHS has ample evidence of reliability and also has been shown to be a valid measure with high correlations with numerous other measures of theoretically related constructs (Fry, 1984, 1986).

Impact of Event Scale (IES; Horowitz, Wilner, & Alvarez, 1979). The IES consists of 30 self-report items to assess current subjective distress related to a specific traumatic event, in this case, the death of a spouse. The IES yields intrusion and avoidance subscales, which are summed to produce a total distress score. Possible score ranges are 0-35 on intrusion subscale, 0-40 on avoidance subscale, and 0-75 on the total distress score, with higher scores indicating increased distress. Horowitz and associates (1979) report adequate internal consistency and test-retest reliability for the IES scales. The IES is widely used in trauma research.

Process Measures

Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS is a self-report mood scale that is widely used in clinical research. We used it to assess changes in self-reported mood from beginning to end of each session and from session to session. The instrument comprises of two mood scales, labeled Positive Affect and Negative Affect. Higher scores indicate greater levels of emotion experienced at present. Four depression items were added to the PANAS due to a deficit in this area, and a previous factor analysis confirmed that the added items loaded on the negative factor, as expected (Segal & Murray, 1994). Thus, the final measure included

10 positive and 14 negative items answered on a 5-point scale (1 = *very slightly*, 3 = *moderately*, 5 = *extremely*). Each scale is highly internally consistent and the two are largely uncorrelated (Watson et al., 1988). The PANAS has been shown to be sensitive to fluctuations in mood.

Immediate Self Report. The PANAS is a general mood questionnaire. A specific self-report measure of feelings about the death was the question "How painful is it for you to think about the death of your spouse right now?" Participants answered on a 7-point scale (1 = *not painful*, 4 = *somewhat painful*, 7 = *extremely painful*). This question was administered immediately pre- and postsession each day.

Procedure

Volunteer participants were told that they would be asked to disclose deeply personal information concerning the death of their spouse and the emotions attached to the event. Participants were randomly assigned to the treatment ($n = 15$) or delayed-treatment ($n = 15$) group. The delayed-treatment design was used to control for history artifacts and regression toward the mean effects. Participants in the treatment group participated in four 20-minute vocal expression sessions within the subsequent 2-week period. Participants were asked each session to talk about the loss of their spouse and to express their deepest thoughts and feelings for the entire 20 minutes while alone in a room. As per the traditional Pennebaker paradigm, no other interventions were offered. All experimental sessions were conducted at the participant's home due to the significant time commitment involved in participating and pragmatic concerns about inadequate transportation to and parking at the university. One of the authors (JAB), a clinical psychology graduate student, conducted the sessions. Process measures (Immediate Self-Report and PANAS) were obtained immediately before and after each disclosure session. In addition, a battery of outcome measures (BSI, GDS, GHS, and IES) were administered at three time periods: pretreatment, posttreatment, and at 1-month follow-up.

Participants assigned to the delayed-treatment group followed the same procedures, with the exception that they did not participate in vocal expression sessions between their first and second pretreatment evaluation periods. These participants filled out the same questionnaires two separate times before the disclosure sessions, while the experimental group only did this once. Participants in the delayed-treatment group began their vocal expression sessions after filling out the outcome questionnaires a second time, and then the study proceeded identically to that of the treatment group. Participants were debriefed at the end of their follow-up assessment and then paid \$30. A description of measurement times in accordance with condition is provided in Figure 1.

RESULTS

Equivalence of Conditions

Participants were randomly assigned by sex to treatment or delayed-treatment conditions. Pretreatment differences between groups were analyzed by *t*-test (age, length of marriage, time since the spouse died, education, and overall quality and satisfaction of the relationship/marriage) or chi-square tests (sex and ethnicity). No significant

TX Conditon	Measurement Time							
	T1		T2		T3		T4	T5
Treatment Group	X	O	X		<30 Days>	X		
Delayed Treatment Group	X		X	O	X	<30 Days>	X	

Note. T = Time of Measurement; O = 4 Vocal Expression Days; X = Questionnaires Administered.

Figure 1. Experimental Design

differences were found between the two groups, showing that the participants in both groups were demographically similar. A series of *t*-tests were also conducted on each of the dependent measures to ensure equivalency of groups. Differences were found on IES-Intrusion (treatment group, $M = 19.133$, $SD = 11.946$; delayed-treatment group, $M = 10.000$, $SD = 8.979$, $p < .05$), IES-Total (treatment group, $M = 32.867$, $SD = 20.010$; delayed-treatment group, $M = 17.286$, $SD = 13.205$, $p < .05$), and BSI-Hostility (treatment group, $M = 54.733$, $SD = 7.759$; delayed-treatment group, $M = 47.429$, $SD = 9.027$, $p < .05$). No differences were found on the other scales.

Baseline Distress

Based on GDS scores, 70% of the sample ($n = 21$) scored in the nondepressed range, 13% ($n = 4$) had mild depression, and 17% ($n = 5$) had moderate/severe depression. Thus it can be concluded that even though the majority of participants were not depressed, almost one-third had mild to severe depression. While looking at hopelessness through the GHS, 93% ($n = 28$) had no signs of hopelessness, while only 7% ($n = 2$) showed mild hopelessness, showing that the sample did not show an elevated level of hopelessness.

When looking at the IES-Total distress score, the present data can be compared to two samples described by Horowitz and associates (1979). Normal populations showed a mean of 8.75 ($SD = 8.07$), while a clinic sample showed a mean of 40.00 ($SD = 18.13$). When comparing the present sample to the Horowitz and colleagues normal sample, 33% ($n = 10$) were within ± 1 standard deviation from the mean, 10% ($n = 3$) were more than 1 standard deviation but below 2 standard deviations from the mean, and 57% ($n = 17$) were more than 2 standard deviations above the mean. When comparing this sample to the clinic sample from the above study, 40% ($n = 12$) were within ± 1 standard deviation from the mean and 13% ($n = 4$) were above 1 standard deviation and below 2 standard deviations from the mean. All other participants (47%; $n = 14$) were more than 1 standard deviation below the mean. Overall, the scores on the IES-Total scale suggest that the majority of participants in this study are at least moderately distressed.

The final main outcome measure that showed possible distress was the BSI-Global Severity Index. It was found that 37% ($n = 11$) were within ± 1 standard deviation from the mean, 40% ($n = 12$) were above 1 standard deviation but below 2 standard deviations from the mean, and 13% ($n = 4$) were above 2 standard deviations from the mean. All others (10%; $n = 3$) were below 2 standard deviations from the mean. This shows that the majority of participants showed moderate to severe symptoms when looking at the Global Severity Index of the BSI.

Outcome Effects

The outcome measures were examined using two sets of analyses. The first set looked at the effectiveness of the vocal expression relative to participants in the delayed-treatment control condition. The second set looked at the effectiveness of vocal expression on both groups, as well as the change or stability to the 30-day follow-up. Analyses were performed on the following 15 dependent measures: GDS, GHS, IES (3 scales), and BSI (10 scales). An alpha level of .05 was used for all tests.

Treatment Group Versus Delayed-Treatment Control Group. The hypothesis that participants in the treatment group should show reductions in their scores from pretest (T1) to posttest (T2) relative to participants in the untreated control group was tested by a series of 2×2 analyses of variance (ANOVA). The independent variables were time (T1 vs. T2, a within-subjects factor) and group (treatment vs. delayed-treatment, a between subjects factor), see Figure 1.

The hypothesis was confirmed in only one of the scales. The Geriatric Hopelessness Scale showed a significant time by group interaction, $F(1, 28) = 4.64, p < .05$. The tests of simple main effects of time within each treatment group were both nonsignificant, indicating a crossed interaction pattern. The level of hopelessness showed a slight decrease for the treatment group (T1 $M = 4.67, SD = 3.54$; T2 $M = 3.27, SD = 2.12$) and a slight increase for the control group (T1 $M = 2.40, SD = 2.23$; T2 $M = 3.33, SD = 3.68$).

The Effectiveness of Vocal Expression for Both Groups From Pretreatment to Posttreatment to Follow-Up. This analysis looked at changes from pretreatment to posttreatment to 1 month follow-up using 3×2 ANOVAs. The independent variables were time (pretreatment vs. posttreatment vs. follow-up, a within-subjects factor) and group (treatment vs. delayed-treatment, a between-subjects factor). When significant time effects were found, post hoc tests were performed using the Tukey's HSD at $p < .05$. There were no significant interactions between time and group in any of the analyses. Table 2 presents means for outcome measures at all time periods.

Significant improvement from pretreatment to posttreatment was found on one scale, the BSI-Global Severity Index ($d = 0.24$). Significant improvement from pretreatment to follow-up was found on six of the measures: Geriatric Hopelessness ($d = 0.50$), IES-Intrusion ($d = 0.45$), IES-Total ($d = 0.44$), BSI-Depression ($d = 0.40$), BSI-Obsessive Compulsive ($d = 0.38$), and BSI-Global Severity Index ($d = 0.36$). Significant improvement from posttreatment to follow-up was found on three of the scales: IES-Intrusion ($d = 0.55$), IES-Total ($d = 0.50$), and BSI-Depression ($d = 0.27$). These results show partial support for the hypothesis in that the treatment resulted in significant and clinically meaningful therapeutic change on several outcome measures.

Mood Changes During Treatment

Before and after each vocal expression session, each participant completed the Immediate Self-Report and the PANAS. Analyses were conducted to test whether there were significant differences between start and finish of vocal expression sessions (pre-/postassessments), as well as from day to day. This was done to test the hypothesis that although painfulness and negative affect would increase from pre to post on vocal expression session days, there would be a gradual decrease in negative affect and painfulness as the number of vocal expression sessions continue. The analyses were 2×4 ANOVAs with pre-post session and days (4 sessions) as within-subject factors.

**TABLE 2. Means and (Standard Deviations)
of Outcome Measures at Pretreatment, Posttreatment,
and Follow-Up Collapsed Across Group ($N = 29$)**

Scale	Pretreatment	Posttreatment	Follow-up
Geriatric Depression Scale	9.103 (8.209)	8.828 (8.615)	7.724 (7.055)
Geriatric Hopelessness Scale	*4.000 (3.674)	3.103 (2.756)	**2.448 (2.399)
Impact of Event Scale Intrusion Subscale	*14.724 (11.417)	*15.069 (9.138)	**10.345 (7.871)
Impact of Event Scale Avoidance Subscale	10.621 (9.321)	10.034 (7.505)	8.172 (6.217)
Impact of Event Scale Total Score	*25.345 (18.546)	*25.103 (14.698)	**18.517 (11.451)
BSI Somatization	54.069 (10.730)	52.655 (11.318)	50.724 (9.569)
BSI Obsessive Compulsive	*60.000 (11.570)	58.069 (10.163)	**55.829 (10.167)
BSI Interpersonal Sensitivity	55.897 (9.897)	54.655 (9.846)	52.241 (10.336)
BSI Depression	*60.931 (11.065)	*59.448 (10.884)	**56.586 (10.669)
BSI Anxiety	55.690 (11.860)	53.897 (12.208)	53.345 (9.824)
BSI Hostility	51.207 (9.041)	49.966 (9.026)	48.517 (8.700)
BSI Phobic Anxiety	53.207 (9.131)	53.207 (10.164)	52.069 (8.345)
BSI Paranoid Ideation	54.586 (8.492)	54.310 (9.809)	52.759 (9.330)
BSI Psychoticism	62.207 (10.065)	60.621 (9.522)	59.414 (9.745)
BSI Global Severity Index	*58.828 (11.757)	**55.931 (12.381)	**54.724 (10.603)

Note. A mean with * is significantly different ($p < .05$) from a mean with **. BSI = Brief Symptom Inventory.

Immediate Self-Report (Painfulness). The Immediate Self-Report asked participants how painful it was to think about their spouse at that moment. Pain increased from the beginning of the session ($M = 3.199$, $SD = 1.767$) to the end of the session ($M = 3.569$, $SD = 2.011$, $d = 0.20$), $F(1, 28) = 8.78$, $p < .005$. A significant main effect was also found for days. There was a decrease in pain across days, $F(3, 84) = 18.24$, $p < .0001$ (Day 1 $M = 4.345$, $SD = 2.018$; Day 2 $M = 3.431$, $SD = 1.895$; Day 3 $M = 2.983$, $SD = 1.854$;

Day 1 $M = 2.776$, $SD = 1.791$). Tukey's HSD test revealed significant differences between Day 1 and Day 2, Day 1 and Day 3, Day 1 and Day 4, and Day 2 and Day 4, showing that painfulness in thinking about one's spouse had a significant decrease in all days as compared to Day 1. The effect size (Cohen's d) from Day 1 to Day 4 was 0.82. These results indicate that, as expected, participants initially felt more painfulness after sessions, but over the course of four sessions, the level of painfulness decreased.

PANAS Positive Affect. As expected, there was a decrease in positive affect from the beginning of the session ($M = 30.776$, $SD = 7.859$) to the end of the session ($M = 29.733$, $SD = 8.639$), $F(1, 28) = 4.38$, $p < .05$, $d = 0.13$. No significant day main effects were found, indicating no change in positive affect across the 4 days.

PANAS Negative Affect. As expected, there was an increase in negative affect from the beginning of the session ($M = 20.853$, $SD = 7.996$) to the end of the session ($M = 23.198$, $SD = 9.699$), $F(1, 28) = 9.51$, $p < .005$, $d = 0.26$. A significant main effect for day was also found, $F(3, 84) = 3.50$, $p < .05$. A Tukey's HSD test showed that a significant decrease in negative affect was found between Day 1 ($M = 23.621$, $SD = 9.438$) and Day 4 ($M = 20.983$, $SD = 8.642$, $d = 0.29$). These results show that even though there were immediate increases in negative affect from pre/post session, over days, the amount of negative affect significantly decreased from Day 1 to Day 4.

Correlations Between Arousal of Positive and Negative Affect With Outcome Change Scores

Is there a relationship between the degree of positive and negative affect expressed during the disclosure sessions and the change in the severity of symptoms from the pretreatment to the 1-month follow-up? To answer this question a "positive affect expression" score was computed by summing the eight positive PANAS scores (pre and post for four sessions) obtained during the sessions. A "negative affect expression" score was similarly computed by summing the eight negative PANAS scores obtained during treatment. Finally, a change in symptom severity score was computed for each of the dependent measures by subtracting the pretest score from the follow-up score. For all of the dependent measures, a positive change score indicated an increase in symptom severity. The correlations between positive and negative affect expression and change in symptom severity are shown in Table 3.

As can be seen in Table 3, correlations between positive affect and change scores were all nonsignificant. This shows that there was no relationship between the arousal of positive affect during the disclosure sessions and the change in scores on the dependent measures. In contrast, there were significant correlations between negative affect and change scores for five of the dependent measures: GDS, GHS, IES intrusion, IES avoidance, and IES total. All the correlations were negative indicating that higher levels of negative affect during the disclosure sessions were associated with greater decreases in distress from pretreatment to follow-up.

DISCUSSION

The rationale for this pilot study was to apply the disclosure or confession paradigm of Pennebaker (1985) to older adults who were struggling to cope with the death of their spouse. Overall, the present study resulted in mixed outcomes. It was shown that vocal

TABLE 3. Correlations and (*p* Values) of Positive Affect and Negative Affect With Outcome Measure Change Scores (Follow-Up Minus Pretest)

Measure	Summed Total Positive Affect	Summed Total Negative Affect
Geriatric Depression Scale	.1296 (.503)	-.4464 (.015)*
Geriatric Hopelessness Scale	.0667 (.731)	-.4418 (.016)*
Impact of Event Scale Intrusion Subscale	.2926 (.124)	-.6196 (.0001)*
Impact of Event Scale Avoidance Subscale	.2749 (.149)	-.5381 (.003)*
Impact of Event Scale Total Score	.2018 (.294)	-.5651 (.001)*
BSI Somatization	.2713 (.155)	-.1137 (.557)
BSI Obsessive Compulsive	.2262 (.238)	-.2107 (.273)
BSI Interpersonal Sensitivity	.3003 (.114)	.0962 (.620)
BSI Depression	.0653 (.736)	.0794 (.682)
BSI Anxiety	.2150 (.263)	-.1898 (.324)
BSI Hostility	.3119 (.100)	-.0959 (.621)
BSI Phobic Anxiety	.2516 (.188)	.0018 (.992)
BSI Paranoid Ideation	.2015 (.295)	-.1567 (.417)
BSI Psychoticism	.1674 (.385)	-.1020 (.599)
BSI Global Severity Index	.3323 (.078)	-.1717 (.373)

BSI = Brief Symptom Inventory.

**p* < .05.

emotional expression was beneficial in relieving some distress, although therapeutic effects typically did not show up until several weeks had passed. Results comparing treatment versus delayed-treatment (control) showed few immediate effects of the sessions. When the entire group was taken together, significant and clinically meaningful therapeutic change was found on several outcome measures, including hopelessness, intrusive thoughts, obsessive-compulsive symptoms, depression, and overall distress (GSI). Thus, there appears to be significant psychological benefit 1 month after the focused talking sessions. These results are consistent with earlier studies (Donnelly & Murray, 1991; Murray et al., 1989; Murray & Segal, 1994; Pennebaker, 1985; Pennebaker & Beall, 1986; Pennebaker et al., 1988) in which written or vocal expression produced substantial emotional improvements in traumatized college students. Our study adds to this literature by providing some evidence of effectiveness with bereaved older adults. A case could be made for recommending this type of procedure as a self-help or adjunctive strategy to psychotherapy for older persons coping with the loss of their spouse.

But what about the *process* of change? As predicted, we found that the degree of painfulness and negative affect initially increased from pre to post on vocal expression session days but gradually decreased as the number of vocal expression sessions increased. This suggests that some negative emotions can be decreased through continued exposure to or in discussion of painful circumstances, although the process of confronting any distressing event will be initially difficult as many painful feelings are brought to the surface. Others have suggested a similar model of therapeutic change in which painful feelings must be elicited before emotional and cognitive changes can occur (see Hunt, 1998; also Greenberg & Safran, 1987). And, our results are consonant with earlier investigations (e.g., Donnelly & Murray, 1991; Murray & Segal, 1994) in which participants experienced an immediate upsurge in negative emotions although

negative feelings decreased over sessions. In contrast, our results suggest that it is easier and more likely to decrease painfulness and negative affect than it is to increase positive affect through this type of intervention with bereaved older persons.

It was clear that participants experienced a great deal of negative affect, particularly at the beginning of treatment. The next question we examined was what type of emotional arousal (positive or negative affect) would be related to therapeutic resolution. Simple catharsis theories suggest that the sheer arousal of negative affect is therapeutic (see Nichols & Zax, 1977) although some empirical evidence suggests that the sole arousal of negative feelings is sometimes related to poor therapeutic outcomes (Segal & Murray, 1994; Tavris, 1989). Our results overwhelmingly indicated that the arousal of negative affect was related to reduced distress from pretreatment to follow-up, while positive affect was unrelated to change.

What might explain these findings? It is possible that those who persistently focused on positive feelings were avoiding painful thoughts and feelings, thus preventing any possibility of successful emotional processing and cognitive reorganization. Indeed, clinicians of diverse persuasions would likely agree that avoidant coping, characterized by defensive strategies such as denial, inhibition, or distraction typically serves to sustain negative moods since the problem is never actually addressed. The main problem with distraction or inhibition is that it reduces an individual's ability to cognitively process many aspects associated with the distressing event, and this failure to resolve the event can result in continuous ruminations and negative emotions for substantial periods of time. Reducing inhibitions, by confronting the experience, should therefore lower stress-related diseases and negative emotions (Spera, Buhrfeind, & Pennebaker, 1994).

In contrast, confrontive coping involves active thinking and talking about the problem in an attempt to get a full understanding of the event, as well as to emotionally work through the effects of the trauma (Hughes, Uhlmann, & Pennebaker, 1994). It is possible that those who persistently focused on negative feelings in our study might have habituated to the unpleasant emotions, a therapeutic process that has recently received some empirical support as a mechanism of change (Hunt, 1998). In any case, our results indicate that confrontive coping (in the form of journal writing or verbally expressing one's negative feelings) can help older persons reduce negative feelings about a traumatic loss. We suggest that the mere expression of one's deep feelings can enable the individual to attain a broader perspective on the experience, which can be beneficial. Indeed, a model of psychotherapeutic change involving affective arousal and subsequent positive cognitive changes has been suggested by several other researchers as well (e.g., Greenberg & Safran, 1987). Therapists of many persuasions tend to encourage emotional expression which then enables cognitive changes, including new ways of looking at the situation and the self (Donnelly & Murray, 1991; Segal & Murray, 1994).

The strengths of this study are the long-term therapeutic effects of the emotional expression intervention and application of the Pennebaker paradigm to a new population: bereaved older adults. The weakness is the lack of a control group against which to measure the follow-up effects. Without this experimental control, it is impossible to attribute the changes to the intervention. Other explanations could possibly include demand effects, experimenter expectancies, and the simple passage of time. It could be argued, however, that it is unlikely that the mere passage of time would have such strong

therapeutic effects, especially since many participants had experienced the death of their spouse well over 1 year before the intervention (mean number of months = 16.6) and improvement due to time would likely have already occurred. Moreover, control conditions (such as having participants write or talk about trivial topics) typically have not resulted in any changes in many previous studies (e.g., Donnelly & Murray, 1991; Esterling et al., 1994; Murray & Segal, 1994; Pennebaker et al., 1988) suggesting that our outcomes would likely be better than control group effects.

In any case, a future study that employed a control condition would strengthen findings from our study. Future studies might also replicate this procedure with a larger and more ethnically diverse sample of bereaved persons. Indeed, the volunteers in this study were all Caucasian, although there was no limitation about who could potentially participate. Thus, the generalizability of our results to other ethnic groups needs further research. This type of research will be particularly important given the increased number of minority older adults. It would also be helpful to see the impact of this type of emotional disclosure intervention on distress in the long run, such as 6 months and 1 year later. The use of longer and additional or booster sessions could also be studied to determine optimal length and number of sessions. Participants volunteered for the study because they were still bothered by the loss of a spouse. However, we did not assess whether participants had any bereavement counseling prior to entering the study, and this should be assessed in future studies.

Another question that is not addressed by this research is the timing of bereavement counseling. Research should investigate when an emotional disclosure intervention would be most effective. Future studies should collect additional data on clinical groups (e.g., widow(er)s experiencing unremitting clinical depression associated with the loss of a spouse) in order to assess generalizability of this treatment approach to populations experiencing pathological reactions. Indeed, our study should be viewed as a pilot study that suggests utility of an emotional disclosure intervention in normal populations that only might be generalizable to individuals with clinically significant negative affect associated with grief. It should be pointed out that caution and prudence should be exercised when applying this approach to a clinical sample until research data support this application. For example, severely depressed persons with fragile ego states could conceivably be harmed by a procedure that encouraged them to express negative thoughts and emotions that could be contributing to the depressive episode. Another avenue for future research might be to investigate the applicability and efficacy of emotional expression interventions among older adults struggling with other traumatic events, such as physical disability or retirement. Finally, these methods could be extended to other types of traumas such as childhood sexual abuse or natural disasters.

In conclusion, encouraging bereaved older persons to vent their emotions and think about the loss of their spouse can potentially result in emotional improvements. Our disclosure intervention resulted in reduced hopelessness, intrusive thoughts, depression and obsessive-compulsive symptoms. This discussion will likely be difficult and painful at first, but over time, those levels of painfulness and negative affect will decrease. Correlational analyses suggested that the arousal of negative affect had a greater impact on decreasing levels of distress compared to arousal of positive affect. Thus, a potential modification of this procedure would be to have the person review the content of their disclosures (possibly with the help of a clinician) to ensure that negative emotions are acknowledged and expressed. It is apparent that grief reaches into every

aspect of a person's existence: psychological, behavioral, social, and physical. Ideally, individuals need to eventually accept the reality of the loss, experience and process the psychological distress and pain, adjust to an environment where the deceased is missing, and realign the ties with the deceased (Worden, 1996). For many individuals, however, this process is extremely difficult. It is hoped that this line of research suggests to individuals something they can do on their own, during their free time, to aid in the reduction of stress and to come to terms with the loss of their loved one.

REFERENCES

- Bowling, A. (1988). Who dies after widow(er)hood? A discriminant analysis. *Omega*, 19, 135-153.
- Clayton, P. J. (1990). Bereavement, stress, and depression. *Journal of Clinical Psychiatry*, 51, 34-38.
- Derogatis, L. R. (1993). *The Brief Symptom Inventory (BSI): Administration scoring and procedures manual* (3rd ed.). Minneapolis: National Computer Systems, Inc.
- Donnelly, D. A., & Murray, E. J. (1991). Cognitive and emotional changes in written essays and therapy interviews. *Journal of Social and Clinical Psychology*, 10, 334-350.
- Esterling, B. A., Antoni, M. H., Fletcher, M. A., Margulies, S., & Schneiderman, N. (1994). Emotional disclosure through writing or speaking modulates Epstein-Barr antibody titers. *Journal of Consulting and Clinical Psychology*, 62, 130-140.
- Esterling, B. A., Antoni, M. H., Kumar, M., & Schneiderman, N. (1990). Emotional repression, stress disclosure responses, and Epstein-Barr viral capsid antigen titers. *Psychosomatic Medicine*, 52, 397-410.
- Fry, P. S. (1984). Development of a geriatric scale of hopelessness: Implications for counseling and intervention with the depressed elderly. *Journal of Counseling Psychology*, 31, 322-331.
- Fry, P. S. (1986). Assessment of pessimism and despair in the elderly. A Geriatric Scale of Hopelessness. *Clinical Gerontologist*, 5, 193-201.
- Greenberg, L. S., & Safran, J. D. (1987). *Emotion in psychotherapy*. New York: Guilford.
- Greenberg, M. A., & Stone, A. A. (1992). Emotional disclosure about traumas and its relation to health: Effects of previous disclosure and trauma severity. *Journal of Personality and Social Psychology*, 63, 75-84.
- Holmes, R. H., & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research*, 11, 213-218.
- Horowitz, M., Wilner, N., & Alvarez, W. (1979). Impact of event scale: A measure of subjective distress. *Psychosomatic Medicine*, 41, 209-218.
- Hughes, C. F., Uhlmann, C., & Pennebaker, J. W. (1994). The body's response to processing emotional trauma: Linking verbal text with autonomic activity. *Journal of Personality*, 62, 565-585.
- Hunt, M. G. (1998). The only way out is through: Emotional processing and recovery after a depressing life event. *Behavior Research and Therapy*, 36, 361-384.
- Lazarus, L. W., & Sadavoy, J. (1988). Psychotherapy with the elderly. In L. W. Lazarus (Ed.), *Essentials of geriatric psychiatry* (pp. 147-172). New York: Springer Publishing Co.

- Meuser, T. M., Davies, R. M., & Marwit, S. J. (1994-1995). Personality and conjugal bereavement in older widow(er)s. *Omega*, 30, 223-235.
- Murray, E. J., Lamnin, A. D., & Carver, C. S. (1989). Emotional expression in written essays and psychotherapy. *Journal of Social and Clinical Psychology*, 8, 414-429.
- Murray, E. J., & Segal, D. L. (1994). Emotional processing in vocal and written expression of feelings about traumatic experiences. *Journal of Traumatic Stress*, 7, 391-405.
- Nichols, M. P., & Zax, M. (1977). *Catharsis in psychotherapy*. New York: Gardner.
- Olin, J. T., Schneider, L. S., Eaton, E. M., Zemansky, M. F., & Pollock, V. E. (1992). The Geriatric Depression Scale and the Beck Depression Inventory as screening instruments in an older adult outpatient population. *Psychological Assessment*, 4, 190-192.
- Pennebaker, J. W. (1985). Traumatic experience and psychosomatic disease: Exploring the role of behavioral inhibition, obsession, and confiding. *Canadian Psychology*, 26, 82-95.
- Pennebaker, J. W., & Beall, S. K. (1986). Confronting a traumatic event: Toward an understanding of inhibition and disease. *Journal of Abnormal Psychology*, 95, 274-281.
- Pennebaker, J. W., Kiecolt-Glaser, J., & Glaser, R. (1988). Disclosure of traumas and immune function: Health implications for psychotherapy. *Journal of Consulting and Clinical Psychology*, 56, 239-245.
- Segal, D. L., & Murray, E. J. (1994). Emotional processing in cognitive therapy and vocal expression of feelings. *Journal of Social and Clinical Psychology*, 13, 189-206.
- Spera, S. P., Buhrfeind, E. D., & Pennebaker, J. W. (1994). Expressive writing and coping with job loss. *Academy of Management Journal*, 37, 722-733.
- Stroebe, W., & Stroebe, M. S. (1987). *Bereavement and health: The psychological and physical consequences of partner loss*. Cambridge, MA: Cambridge University Press.
- Tavris, C. (1989). *Anger: The misunderstood emotion*. New York: Simon & Schuster.
- Thompson, L. W., Gallagher-Thompson, D., Futterman, A., Gilewski, M., & Peterson, J. (1991). The effects of later-life spousal bereavement over a 30-month interval. *Psychology and Aging*, 6, 434-441.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063-1070.
- Worden, J. W. (1996). Tasks and mediators of mourning: A guideline for the mental health practitioner. *In Session: Psychotherapy in Practice*, 2, 73-80.
- Yesavage, J. A., Brink, T. L., Rose, T. L., Lum, O., Huang, V., Adey, M., & Leirer, V. O. (1983). Development and validation of a geriatric depression screening scale: A preliminary report. *Journal of Psychiatric Research*, 17, 314-317.

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