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BRIEF REPORT

Anxious and depressive avoidance behavior in post-loss psychopathology: a longitudinal study

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Background: Avoidance behavior is a central component of cognitive behavioral theories of bereavement-related psychopathology. Yet, its role is still not well understood. This study examined associations of anxious and depressive avoidance behaviors with concurrently and prospectively assessed symptom-levels of prolonged grief disorder (PGD), depression, and posttraumatic stress disorder (PTSD). **Design and Methods:** Two hundred and ninety-one individuals, confronted with loss maximally three years earlier, completed self-report measures of anxious and depressive avoidance and emotional distress and again completed distress measures one year later. **Results:** Anxious and depressive avoidance were concurrently associated with symptom-levels of PGD, depression, and PTSD, even when controlling for the shared variance between both forms of avoidance and relevant socio-demographic and loss-related variables. Prospective analyses showed that baseline anxious avoidance predicted increased symptom-levels of PGD, depression, and PTSD one year later, among participants who were in their first year of bereavement but not among those who were beyond this first year. Baseline depressive avoidance was significantly associated with elevated PTSD one year later, irrespective of time since loss. **Conclusions:** Both anxious and depressive avoidance are associated with different indices of poor long-term adjustment following loss. However, anxious avoidance seems primarily detrimental in the first year of bereavement.

Keywords: grief; avoidance-behavior; bereavement; depression; posttraumatic stress disorder

The death of a loved one is a life-event that most people adjust to without serious mental health complaints. However, in an estimated 5–10% of bereaved people, a loss precipitates persistent emotional problems, including depression, posttraumatic stress disorder (PTSD), and prolonged grief disorder (PGD; Prigerson et al., 2009). PGD is a chronic grief response characterized by persistent separation distress, difficulty accepting the loss and adjusting to its consequences, present to a distressing and disabling degree at least six months after the death occurred. PGD is being considered for inclusion in the 11th edition of the International Classification of Diseases (ICD-11; Maercker et al., 2013) and resembles persistent complex bereavement disorder, included in the Appendix

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of the fifth Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013).

Cognitive behavioral theories propose that PGD can be regarded as a prolongation of acute grief that is due to difficulties revising internalized representations of the self and the lost person to incorporate the loss, persistent negative cognitions, and avoidance behaviors (e.g., Boelen, Van den Hout, & Van den Bout, 2006; Maccallum & Bryant, 2013; Shear & Shair, 2005). Accordingly, cognitive behavioral treatments focus on confronting the implications of the separation, changing negative cognitions, and replacing avoidance behaviors with behaviors that foster adjustment. These interventions are efficacious for many PGD patient (Boelen, De Keijser, Van den Hout & Van den Bout, 2007; Papa, Sewell, Garrison-Diehn, & Rummel, 2013; Shear, Frank, Houck, & Reynolds, 2005; Wagner, Knaevelsrud, & Maercker, 2006).

Although avoidance behavior is a central component of cognitive behavioral theories of disturbed grief its role is still not well understood. The current study aimed to further our knowledge about avoidance in emotional problems following loss. In so doing and drawing from Boelen et al.'s (2006) cognitive behavioral conceptualization we focused on "anxious avoidance" and "depressive avoidance." Anxious avoidance refers to deliberately avoiding stimuli associated with the loss, driven by the fear of what will happen on confrontation with these reminders (akin to avoidance in phobias). Depressive avoidance refers to inhibition of usual social, recreational, and occupational activities driven by the assumption that these activities are useless and unfulfilling. Although the role of avoidance behaviors in psychopathology – including depression (Leventhal, 2008) and posttraumatic stress (Van Minnen & Hagens, 2010) – has been studied quite extensively, the role of avoidance in recovery from loss is still controversial. For instance, there is evidence for a cross-sectional linkage between anxious avoidance and PGD (e.g., Boelen & Van den Bout, 2010). However, prospective studies have yielded mixed results with some studies (Bonanno, Papa, Lalande, Zhang, & Noll, 2005) but not other studies (Boelen, Van den Bout, & Van den Hout, 2006; Van der Houwen, Stroebe, Schut, Stroebe, & Van den Bout, 2010) providing evidence that anxious avoidance is associated with poorer long-term adjustment. In addition, although it has been postulated that depressive avoidance is critical to post-loss psychopathology (Shear et al., 2007), few studies have confirmed this (Eisma et al., 2013). Moreover, little is known about the prospective association of depressive avoidance with PGD and the relative importance of anxious and depressive avoidance in predicting post-loss distress.

The current study – conducted in the Netherlands – used a longitudinal design to extend existing knowledge about anxious and depressive avoidance behaviors in emotional problems following loss. Bereaved individuals, all confronted with loss maximally three years before inclusion into the study, completed self-report measures of anxious and depressive avoidance, along with measures of bereavement-related emotional distress (at Time 1, T1) and again completed distress measures one year later (T2). The following issues were addressed. First, we examined the cross-sectional association between anxious and depressive avoidance and emotional distress. To enhance knowledge about the specificity of anxious and depressive avoidance to different forms of loss-related distress, we examined their associations with symptom-levels of PGD, depression, and PTSD. In addition, we were interested to see whether the associations of anxious and depressive avoidance with symptoms varied as a function of the amount of time passed since the loss, or, formally stated, whether there was an

interaction between time since loss and anxious and depressive avoidance in explaining variance in concurrent symptom-levels. Based on prior findings, we expected both anxious and depressive avoidance to be significantly associated with post-loss distress (Boelen & Van den Bout, 2010; Eisma et al., 2013; Shear et al., 2007). We had no specific hypotheses concerning the moderating impact of time on the association between avoidance and emotional distress, because research in this area is lacking. We reasoned that it was possible that anxious and depressive avoidance are stable correlates of disturbed grief, irrespective of the time elapsed since the loss. Yet, it was also possible that the association of anxious and depressive avoidance with distress varied over time. We reasoned that one possibility was that anxious avoidance of loss-related stimuli and depressive avoidance of activities outside one's domestic environment could be more maladaptive in the early period of bereavement (where such avoidance interferes with integration of the loss), but not the later stages (where such avoidance could be indicative of an adaptive ability to turn attention away from the loss). Alternatively, one could reason that anxious and depressive avoidance are less maladaptive in the early stages of bereavement, with anxious avoidance serving to protect against overwhelming pain and depressive avoidance providing the necessary opportunities to process the loss.

Second, we examined associations of anxious and depressive avoidance with changes in symptom-levels of PGD, depression, and PTSD between T1 and T2. Again, we investigated whether the amount of time that had passed since the loss occurred at T1 moderated these associations. Inclusion of individuals confronted with loss between one month and three years before inclusion into the study enabled us to examine whether the impact of anxious and depressive avoidance on subsequent distress was different for those who were in their early months of bereavement compared to those who were beyond the first or even second anniversary of their loss. As before, we had no specific hypotheses guiding our examination. One possible outcome was that both forms of avoidance would be unrelated to changes in PGD, depression, and PTSD, and, thus best qualified as correlates rather than prospective risk factors of post-loss distress. Another possibility was that both forms of avoidance would predict subsequent changes in post-loss distress, regardless of the amount of time passed since the loss at baseline. This would indicate that avoidance behaviors block adaptation to loss, at early and later periods in the grieving process. A final possibility was that anxious and depressive avoidance would turn out having a differential impact on subsequent distress dependent on the time elapsed since the loss, in ways described above.

Method

Participants and procedure

Data were collected in the context of a research program on cognitive behavioral and memory processes in grief. Participants were recruited via professional and lay mental health care workers (e.g., grief counselors, therapists) who handed out questionnaires to mourners they came in contact with. The research program was approved by Utrecht University's medical ethical review committee and written informed consent was obtained from all participants. In total, 712 individuals entered the research program. In the current study, we included data of participants who were bereaved less than three years at inclusion into the program and who completed questionnaires one year later. At baseline (T1), 496 were bereaved less than three years and 291 of them (59%) also

participated at T2. All analyses were done with this latter group. Dropout analyses showed that, compared with those who continued to participate at T2 ($n = 291$), participants that dropped out between T1 and T2 ($n = 205$) were further removed from their loss ($M = 14.1$ vs. $M = 12.5$ months, $t(494) = 2.09$, $p = .04$) and reported higher levels of PGD ($M = 29.8$ vs. $M = 28.0$, $t(492) = 2.30$, $p = .02$) and anxious avoidance ($M = 13.5$ vs. $M = 11.4$, $t(376.5) = 3.16$, $p = .002$).

The mean age of participants was 54.9 ($SD = 13.0$) years. Most participants ($n = 216$; 74.2%) were women; 158 participants (54.3%) had had primary/secondary education only, whereas 133 participants (45.7%) had been to college or university. Two hundred participants (68.7%) had lost a spouse/partner, 25 (8.6%) a child, and 66 (22.7%) lost a loved one other than a partner or child (e.g., friend, parent, sibling). Losses occurred on average 12.5 ($SD = 8.3$) months earlier and were due to a natural cause in $n = 263$ (90.4%) participants and an unnatural cause (i.e., suicide, accident, homicide) in $n = 28$ (9.6%) participants.

Measures

Prolonged Grief Disorder Scale (PGD Scale)

The PGD scale is based on the 19-item Inventory of Complicated Grief (Prigerson et al., 2009). It contains 11 of its items representing criteria for PGD (Prigerson et al., 2009). Accordingly, items represent one separation distress symptom, nine cognitive and emotional symptoms, and one functional impairment symptom. Participants rate how often symptoms occurred in the preceding month on a 5-point scale (1 = *never*, 5 = *always*). The PGD scale overlaps with Prigerson et al.'s (2009) PG-13 such that both measures were designed to tap the 11 criteria for PGD; however, there are differences in the wording of the items. The PGD scale was developed and validated in the context of prior research (e.g., Boelen, Keijsers, & Van den Hout, 2012). In the current sample, Cronbach's α was .89 at T1 and .90 at T2.

Beck Depression Inventory (BDI-II)

The BDI-II is a measure of depressive symptoms that contains 21 groups of four statements representing depressive symptoms at increasing levels of severity. Respondents are instructed to choose the statement that best described their state. The English (Beck, Steer, & Brown, 1996) and Dutch versions (Van der Does, 2002) have adequate psychometric properties. The α in this sample was .91 at T1 and .92 at T2.

PTSD Symptom Scale Self-Report Version (PSS-SR)

The PSS-SR is a 17-item measure of PTSD symptoms as defined in DSM-IV (APA, 2000). Respondents rate the frequency of symptoms on a 4-point scale (0 = *not at all*, 4 = *five or more times per week/almost always*). The index event was defined as "the death of your loved one" (e.g., "How often did you have unpleasant dreams or nightmares about the death of your loved one?"). English (Foa, Riggs, Dancu, & Rothbaum, 1993) and Dutch versions (Engelhard, Arntz, & Van den Hout, 2007)

have good psychometric properties. In the present sample, the α was .88 at T1 and .89 at T2.

Depressive and Anxious Avoidance in Prolonged Grief Questionnaire (DAAPGQ)

The DAAPGQ is a 9-item measure, with 4 items tapping Anxious Avoidance ($\alpha = .71$, “I avoid situations and places that confront me with the fact that [-] is dead and will never return”, “I avoid to dwell on painful thoughts and memories connected to his/her death”) and 5 items tapping Depressive Avoidance ($\alpha = .90$; “I avoid doing activities that used to bring me pleasure, because I feel unable to carry out these activities”, “I develop very few new activities since [-] died, because I am unable to do so”). Items are rated on a 8-point scale (1 = *not at all true for me*, 8 = *completely true for me*). Psychometric properties of the measure are adequate (Boelen & Van den Bout, 2010; Eisma et al., 2013).

Results

Preliminary analyses

Between T1 and T2, there were significant declines in symptom-levels of PGD ($M_{t1} = 28.0$, $SD_{t1} = 8.9$ vs. $M_{t2} = 25.1$, $SD_{t2} = 8.9$; $t(289) = 8.32$, $p < .001$), PTSD ($M_{t1} = 14.6$, $SD_{t1} = 8.5$ vs. $M_{t2} = 10.8$, $SD_{t2} = 7.6$; $t(290) = 10.03$, $p < .001$), and depression ($M_{t1} = 13.2$, $SD_{t1} = 8.5$ vs. $M_{t2} = 10.7$, $SD_{t2} = 8.5$; $t(290) = 6.10$, $p < .001$). At T1, $n = 26$ (8.9%) participants and at T2 $n = 15$ (5.2%) participants passed the threshold for “PGD caseness”, according to Prigerson et al.’s (2009) scoring rule where PGD caseness is defined as a score of 4 or 5 on the “yearning-symptom”, a score of 4 or 5 on the “impairment in functioning” item, and a score of 4 or 5 on at least 5 of the 9 “cognitive, emotional, and behavioral symptoms”. At T1, $n = 52$ (17.9%) participants and at T2 $n = 19$ (6.5%) participants passed the threshold for “PTSD caseness” according to the DSM-IV based scoring rule put forth by Brewin, Andrews, and Rose (2000) with symptom-scores of at least 2 (“two to four times a week/half of the time”) on at least one reexperiencing, three avoidance, and two hyperarousal symptoms. At T1, the correlation of PGD-severity with PTSD severity was $r = .77$ and with depression severity was .80; the correlation of PTSD with depression was .78. At T2 these correlations were .82, .77, and .83 (all $ps < .001$), respectively. Thus, symptom measure scores were strongly correlated.

We examined whether symptom-scores varied as a function of socio-demographic variables (age, gender, education) and loss-related variables (kinship, mode of death, time since loss). At T1 and T2, symptom-levels of PGD, PTSD, and depression were higher for individuals with low education compared to individuals who had been to college or university (all $F_s > 7.27$, all $ps < .007$) and were higher among participants confronted with an unnatural compared to a natural loss (all $F_s > 11.91$, all $ps < .0006$). Symptom-scores also varied by kinship (all $F_s > 5.93$, all $ps < .003$) and were ordered as: *loss of child = loss of partner > other loss* (PTSD and depression at T1) or *loss of child > loss of partner > other loss* (PGD at T1 and all symptom at T2). PTSD-scores at T1 varied by gender, with higher scores for women ($M = 15.4$, $SD = 8.6$) vs. men ($M = 12.2$, $SD = 7.8$; $F(1, 290) = 8.27$, $p = .004$).

Regression analyses predicting symptom-scores at T1

To examine concurrent associations of anxious and depressive avoidance with symptom-scores, three hierarchical regression analyses were conducted in which symptom-levels of PGD, depression, and PTSD-scores at T1, respectively, were included as dependent variables. In each analysis, independent variables were entered in three blocks representing (1) time since loss and other relevant demographic and loss-related variables (i.e., those associated with T1 symptom-scores), (2) anxious and depressive avoidance, and (3) the interaction-terms time \times anxious avoidance and time \times depressive avoidance.

Table 1 summarizes outcomes of these analyses. Significant models emerged predicting concurrent PGD ($F(9, 288) = 56.20, p < .001$), depression ($F(9, 289) = 43.0, p < .001$), and PTSD ($F(10, 289) = 36.20, p < .001$). In all three models, variables entered in Block 1 and Block 2, but not Block 3 added to the explained variance in concurrent symptom-scores. Thus, anxious avoidance and depressive avoidance were both concurrently associated with symptom-levels of PGD, depression, and PTSD when controlling for relevant socio-demographic and loss-related variables (Block 1) and the overlap between anxious and depressive avoidance (Block 2). These associations did not differ as a function of time since loss (Block 3).

Regression analyses predicting symptom-scores at T2

Next, we examined prospective associations between anxious and depressive avoidance at T1 and symptom-scores at T2 (one year after T1) while controlling for symptom-levels at T1. To this end, we conducted three hierarchical regression analyses predicting PGD, depression, and PTSD-scores at T2, respectively. In each analysis, predictor variables were entered in four blocks representing (1) baseline symptom-levels, (2) time since loss and other relevant demographic and loss-related variables (i.e., those associated with T2 symptom-scores), (3) anxious and depressive avoidance, and (4) interaction-terms for time \times anxious avoidance and time \times depressive avoidance.

Outcomes are summarized in Table 2. The model predicting PGD-scores at T2 was significant: $F(10, 288) = 56.50, p < .001$. Notably, there were no main effects for anxious and depressive avoidance on changes in PGD (Block 3). Yet, in Block 4, there was a significant interaction between anxious avoidance and time since loss. This interaction was further examined with simple slope analysis, conducted using the PROCESS program (Hayes, 2013). We examined the association of anxious avoidance with changes in PGD at *1 SD below the mean time since loss*, at *mean time since loss* (i.e., 12.5 months), and *1 SD above the mean time since loss*. Outcomes showed that, increased anxious avoidance coincided with elevated PGD one year later, when time since loss was short ($b = .21, p = .009$), but not at average ($b = .07, p = .22$) or long time since loss ($b = -.07, p = .39$).

Similar results emerged in the regression predicting T2 depression severity ($F(10, 289) = 29.90, p < .001$); there were no main effects for anxious and depressive avoidance (see Table 2). Yet, in Block 4, a significant time \times anxious avoidance interaction effect emerged. Simple slope analysis showed that anxious avoidance predicted elevated depression one year later, when time since loss was short ($b = .21, p = .02$), but not when time since loss was at the mean ($b = .02, p = .75$). In fact, when time since loss was long (1 *SD* above the mean time since loss), there was a trend toward

Table 1. Summary of regression analyses predicting symptoms at Time 1 ($N = 291$).

	ΔR^2	ΔF	B in final model	$SE B$ in final model	β in final model
<i>DV = PGD at T1</i>					
Block 1	22.1%	16.03***			
Education (0 = low; 1 = high)			-0.91	0.66	-0.05
Loss due to unnatural cause			2.23	1.14	0.07
Deceased is partner			4.66	0.82	0.24***
Deceased is child			6.21	1.33	0.19***
Time passed since loss			0.01	0.04	0.01
Block 2	42.1%	165.34***			
Anxious avoidance			0.25	0.05	0.17***
Depressive avoidance			0.51	0.03	0.58***
Block 3	<0.1%	<1			
Time \times anxious avoidance			<0.01	0.01	<0.01
Time \times depressive avoidance			-0.01	<0.01	-0.05
<i>DV = Depression at T1</i>					
Block 1	11.2%	7.18***			
Education (0 = low; 1 = high)			-0.98	0.68	-0.05
Loss due to unnatural cause			3.19	1.18	0.11**
Deceased is partner			1.00	0.85	0.05
Deceased is child			-0.27	1.38	-0.01
Time passed since loss			-0.01	0.04	-0.02
Block 2	46.7%	156.30***			
Anxious avoidance			0.21	0.06	0.15***
Depressive avoidance			0.54	0.03	0.63***
Block 3	<0.1%	<1			
Time \times anxious avoidance			<0.01	0.01	-0.02
Time \times depressive avoidance			<0.01	<0.01	-0.02
<i>DV = PTSD at T1</i>					
Block 1	14.6%	8.04***			
Gender (0 = man, 1 = woman)			2.668	0.77	0.13**
Education (0 = low; 1 = high)			-1.250	0.69	-0.07
Loss due to unnatural cause			2.829	1.20	0.09
Deceased is partner			.775	0.86	0.04*
Deceased is child			.907	1.40	0.03
Time passed since loss			-.095	0.04	-0.09*

Table 1 (Continued)

	ΔR^2	ΔF	<i>B</i> in final model	<i>SE B</i> in final model	β in final model
Block 2	41.7%	134.02***			
Anxious avoidance			.379	0.06	0.27***
Depressive avoidance			.431	0.03	0.51***
Block 3	<0.1%	<1			
Time \times anxious avoidance			.001	0.01	0.01
Time \times depressive avoidance			-.005	<0.01	-0.05

PGD, prolonged grief disorder; PTSD, posttraumatic stress disorder.
 $*p < .05$; $**p < .01$; $***p < .001$.

elevated anxious avoidance being associated with *less* depression one year later ($b = -.17$, $p = .06$).

The model predicting T2 PTSD-scores was also significant: $F(10, 289) = 34.46$, $p < .001$. In Block 3 of the equation, depressive avoidance emerged as a unique predictor of changes in PTSD. In Block 4, this main effect remained significant. In addition, a significant time \times anxious avoidance interaction effect emerged. Simple slope analysis showed that, at a trend-level, anxious avoidance was associated with PTSD symptoms one year later, at short time since loss ($b = .14$, $p = .08$), but not at mean time since loss ($b = .01$, $p = .93$), or high levels ($b = -.13$, $p = .11$) of time since loss.¹

Additional analyses

For exploratory reasons, we also examined whether associations of anxious and depressive avoidance with concurrent and prospective symptom-levels of PGD, depression, and PTSD were moderated by other socio-demographic and loss-related variables that were associated with symptoms at T1 and T2. To this end, we extended the six regression analyses described above with an additional block of predictor variables that included the interactions of anxious and depressive avoidance with dichotomously coded education, confrontation with unnatural/natural loss, loss of partner, loss of child, and (in the regression predicting PTSD at T1) gender. This extra block of predictor variables did not explain significant extra variance in symptom-levels of PGD and PTSD at T1 and T2, or depression at T2 (all $\Delta R^2 < 2.8\%$, all $\Delta F < 1.82$, all $ps > .06$). However, this set of predictors did explain a small amount of extra variance in concurrent depression ($\Delta R^2 = 2.9\%$, $\Delta F(8, 272) = 2.54$, $p = .01$).² Significant interactions emerged between mode of death and depressive avoidance (stronger association of depressive avoidance with depression following unnatural loss), anxious avoidance and education (stronger association of anxious avoidance with depression in those with lower education), and anxious avoidance and kinship (weaker association of anxious avoidance with depression among spousally and parentally bereaved participants, compared to those confronted with the loss of another relative).

Table 2. Summary of regression analyses predicting symptoms at Time 2 ($N = 291$).

	ΔR^2	ΔF	B in final model	$SE B$ in final model	β in final model
<i>DV = PGD at T2</i>					
Block 1					
PGD at T1	61.2%	464.96***	0.63	0.05	0.64***
Block 2	4.0%	6.52***			
Education (0 = low; 1 = high)			-20.16	0.63	-0.12**
Loss due to unnatural cause			30.92	10.10	0.13***
Deceased is partner			0.37	0.83	0.02
Deceased is child			20.87	10.32	0.09*
Time since loss			-0.05	0.03	-0.05
Block 3	0.4%	1.79			
Anxious avoidance			0.06	0.05	0.04
Depressive avoidance			0.06	0.04	0.06
Block 4	0.8%	3.38*			
Time \times anxious avoidance			-0.01	0.01	-0.09*
Time \times depressive avoidance			<0.01	<0.01	0.02
<i>DV = Depression at T2</i>					
Block 1					
Depression at T1	45.2%	237.25***	0.53	0.06	0.53***
Block 2	4.3%	4.79***			
Education (0 = low; 1 = high)			-10.74	0.73	-0.10*
Loss due to unnatural cause			10.04	10.28	0.03
Deceased is partner			0.60	0.90	0.03
Deceased is child			50.31	10.47	0.17***
Time since loss			-0.02	0.04	-0.02
Block 3	0.6%	1.72			
Anxious avoidance			0.02	0.06	0.01
Depressive avoidance			0.09	0.05	0.11
Block 4	1.7%	4.83**			
Time \times anxious avoidance			-0.02	0.01	-0.13**
Time \times depressive avoidance			0.01	0.01	0.08
<i>DV = PTSD at T2</i>					
Block 1					
PTSD at T1	48.0%	256.59***	0.45	0.05	0.51***
Block 2	4.8%	5.71***			
Education (0 = low; 1 = high)			-10.63	0.63	-0.11*
Loss due to unnatural cause			20.91	10.10	0.11**
Deceased is partner			0.95	0.78	0.05
Deceased is child			30.95	10.27	0.14**

Table 2 (Continued)

	ΔR^2	ΔF	<i>B</i> in final model	<i>SE B</i> in final model	β in final model
Time since loss			-0.05	0.03	-0.06
Block 3	1.5%	4.63*			
Anxious avoidance			0.01	0.05	<0.01
Depressive avoidance			0.12	0.04	0.16**
Block 4	1.0%	3.15*			
Time \times anxious avoidance			-0.01	0.01	-0.11*
Time \times depressive avoidance			0.01	<0.01	0.05

PGD, prolonged grief disorder; PTSD, posttraumatic stress disorder.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

This study sought to expand prior research on the role of avoidance behaviors in emotional problems following loss focusing on concurrent and prospective associations of anxious avoidance behavior and depressive avoidance behavior with symptom-levels of PGD, depression, and PTSD. Our cross-sectional analyses showed that both anxious and depressive avoidance were significantly associated with symptom-levels of PGD, depression, and PTSD, even when controlling for the shared variance between both forms of avoidance and socio-demographic and loss-related variables that affected symptom-levels. Notably, depressive avoidance was more strongly associated with symptoms than anxious avoidance (see Table 1). The significant association between post-loss psychopathology and anxious avoidance accords with prior studies showing that phobia-like avoidance behavior is involved in persistent distress following loss (Bonanno et al., 2005; Shear et al., 2007). Few studies have examined depressive avoidance following loss (e.g., Boelen & Van den Bout, 2010); yet, recent findings that behavioral activation alleviates post-loss psychopathology do suggest that environmental disengagement undermines recovery from loss (Papa et al., 2013). In keeping with these findings, our results point out that the tendency to withdraw from activities that could foster adjustment (implicated in elevated depressive avoidance) is an important correlate of post-loss distress.

Our prospective analyses drew a wider perspective on the role of anxious and depressive avoidance. With respect to anxious avoidance, outcomes pointed out that the amount of time that had passed at T1 qualified the association of anxious avoidance with symptom-levels of PGD, depression, and PTSD one year later. Specifically, we found that anxious avoidance at T1 predicted worse PGD, depression, and (at a trend-level) PTSD one year later, among bereaved individuals who were in their first year of bereavement (i.e., those scoring 1 *SD* below the mean-level of time since loss, which was 12.5 months) but not among those who were beyond this first year. One might speculate that in the early period of bereavement, anxiously avoiding loss-related cues interferes with elaboration and integration of the loss. Beyond the first year, anxious avoidance is still a correlate of distress, but does not lead to further exacerbation of distress. Interestingly, at high levels of time since loss (beyond the 12.5 month threshold), elevated anxious avoidance trended toward being associated with *reduced* depression severity one year

later. This suggests that, at a later period in the grieving process, turning attention away from loss-related stimuli is actually a good thing to do, whereas deliberately confronting or difficulties avoiding these stimuli may signal a maladaptive preoccupation with the loss associated with subsequent elevations of distress.

With respect to depressive avoidance, outcomes showed that baseline depressive avoidance did not predict changes in PGD and depression. However, baseline depressive avoidance was, in fact, significantly associated with a worsening of PTSD symptomatology over the course of the subsequent year – irrespective of the amount of time that had passed since the loss at baseline. Combined with the outcomes of the cross-sectional analyses, these findings suggest that depressive avoidance is a correlate, but not a prospective risk factor of PGD and post-loss depression, and both a correlate and prospective risk factor of bereavement-related PTSD.

Although the role of anxious and depressive avoidance in predicting post-loss distress was our main interest, this study yielded several additional notable findings. For instance, our finding that distress was more severe among those confronted with loss due to suicide, homicide, or accidents, accords with prior findings that unnatural loss is a risk factor for poorer bereavement outcome (Kristensen, Weisaeth, & Heir, 2012). In addition, our finding that 8.9% of participants passed the threshold for PGD caseness, converges with prior observations in a diversity of samples showing that the prevalence of PGD lies between 5% and 10% (Maercker et al., 2013). However, it is important to note that 17.9% passed the threshold for PTSD caseness, indicating that the incidence of serious bereavement distress may well be 15% or more, when taking into account different forms of psychopathology. That said, it is also important that caution is applied in generalizing the prevalence rates observed in this study to the general population of bereaved individuals, given that participants were recruited from mental health care workers (e.g., grief counselors, therapists).

There are other caveats that are important. First, we exclusively relied on self-report inventories to tap both independent and dependent variables. Thus, the validity of our findings may have been influenced by response bias (e.g., social desirability) and shared method variance. Second, symptom measures were highly correlated, indicating that further research is needed to elucidate the differential linkage of different types of avoidance behaviors with specific forms of bereavement-related distress. Third, as this study focused on deliberate avoidance only, we cannot draw conclusions about the role of implicit, automatic avoidance in recovery from loss. Fourth, women were overrepresented in this study. Although relevant socio-demographic and loss-related variables were held constant across the analyses, caution should be applied in generalizing the current study findings. Fifth, participants were recruited from caretakers, but we did not gather information about the nature and intensity of care obtained between T1 and T2. This further underscores that caution should be exercised in generalizing the current findings. Moreover, future studies are needed to examine if the link of avoidance with distress varies between individuals who received treatment and those who did not. Finally, that people who dropped out between T1 and T2 were higher in anxious avoidance compared to those who continued to participate suggests that some caution should be applied in generalizing findings to people with high levels of anxious avoidance.

Notwithstanding these considerations, this study adds to our knowledge about cognitive behavioral variables involved in the persistence of emotional distress following loss by showing that (1) both anxiously avoiding reminders of the loss and depressively

refraining from activities that could foster recovery are correlates of PGD, depression, and PTSD, (2) in the first year of bereavement, but not beyond, anxious avoidance is a prospective risk factor for elevated PGD and depression, and (3) depressive avoidance is a prospective risk factor for bereavement-related PTSD, regardless of the time passed since the loss. The current findings accord with one of the key predictions from cognitive behavioral theories of persistent grief that avoidance behaviors interfere with the resolution of acute grief, because these behaviors block integration of the loss with extant knowledge and adjustment of one's views of the self and the future, thereby keeping the person in a state of acute grief. Clinical implications of the current findings are that targeting anxious and depressive avoidance should be key ingredients of psychological interventions for persistent distress following loss. Indeed, exposure to reminders of the loss and revisiting scenes of the death as a means to curb anxious avoidance combined with graded activation to counter depressive avoidance have proven to be efficacious in the treatment of post-loss psychopathology (Boelen et al., 2007; Papa et al., 2013; Shear et al., 2005; Wagner et al., 2006). Clearly, it will be imperative for future studies to further enhance knowledge about the types of avoidance behaviors that are most obstructive at different points in the grieving process; this knowledge could clarify at what points in their grieving process bereaved individuals are best helped by exposure to reminders of the loss and/or engagement in activities that help to turn attention away from the loss.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

1. The measure of PGD includes one item ("Avoiding places, objects, people reminding of the loss") and the measure of PTSD includes two items ("Try not to think of loss", "Avoiding activities, places, people reminding of the loss") that have some overlap with items of the DAAPGQ tapping anxious avoidance. However, outcomes of the analyses with PGD and PTSD severity as dependent variables were similar when these items were removed from the PGD scale and PSS-SR.
2. Detailed outcomes are available on request.

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