

A 1.5-Year Follow-Up of an Internet-Based Intervention for Complicated Grief

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Only recently have psychotherapeutic interventions for complicated grief been developed and evaluated in randomized controlled trials. These trials have reported significant reductions in complicated grief and related symptoms in response to treatment relative to control groups. However, little is known about the long-term outcomes of these treatments. The authors present an evaluation of a 1.5-year follow-up of an Internet-based cognitive-behavioral intervention for complicated grief. Treatment group patients (n = 22) were administered various assessments of complicated grief indicators, including the Impact of Event Scale, the anxiety and depression subscales of the Brief Symptom Inventory, and the SF-12. Results indicate that the reduction in symptoms of complicated grief observed at posttreatment was maintained at 1.5-year follow-up.

Only recently have two treatment approaches tailored specifically for patients experiencing complicated grief been developed and evaluated in randomized controlled trials (Shear, Frank, Houck, & Reynolds, 2005; Wagner, Knaevelsrud, & Maercker, 2005, 2006). The findings of these trials suggest that bereaved individuals experiencing complicated grief may benefit from these new disorder- or problem-specific treatments.

Parallel to this development in the field of bereavement interventions, the Internet has emerged as a new delivery channel for psychotherapeutic treatments. Wagner et al. (2006) developed and evaluated an Internet-based cognitive-behavioral intervention for complicated grief. The 5-week intervention comprised two components: structured writing disclosure and cognitive-behavioral therapy. Results of a randomized controlled trial indicated that, relative to the waiting group, the treatment group experienced significant statistical and clinical reductions in various symptoms at posttreatment and at 3-month

follow-up. Specifically, significant reductions were found in the severity of the main symptoms of complicated grief (e.g., intrusion, avoidance, failure to adapt) as well as in depression and anxiety at posttreatment and at 3-month follow-up. Additionally, posttraumatic growth increased significantly during the treatment.

Complicated grief as a subset of clinically significant grief reactions has been found to have a specific phenomenology and to be distinct from bereavement-related depressive, anxiety, and posttraumatic stress disorder symptoms (Boelen & van den Bout, 2005; Prigerson et al., 1995). Two existing diagnostic approaches have been investigated in recent years (Forstmeier & Maercker, 2006). The present study is based on the clinical conceptualization of Horowitz's stress response theory (Horowitz, 2001; Horowitz, Bonanno, & Holen, 1993; Horowitz et al., 1997), which considers complicated grief as an interactive phenomenon of intrusive, avoidance, and maladjustment symptoms.

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Not much is known about the long-term outcomes of treatments for complicated grief or, more specifically, of Internet-based interventions. The goal of this follow-up study was to determine whether symptom improvement could be maintained for patients with complicated grief symptoms and general psychopathology presented in Wagner et al. (2005, 2006) at 1.5-year follow-up.

METHOD

Twenty-two of the 26 patients (85%) who completed the treatment phase of the randomized controlled Internet-based intervention trial participated in the follow-up study. At pretreatment, patients diagnosed with complicated grief ($n = 50$) had been randomly assigned to either the treatment group or a waiting-list control condition (Wagner et al., 2006). The latter group is not analyzed here. Exclusion criteria included risk of psychosis, dissociative tendency, severely depressed mood or suicidal intentions, substance abuse, currently receiving treatment elsewhere, and age younger than 18 years.

The participants' ages ranged from 18 to 68 years ($M = 36$ years, $SD = 11$); 88% of participants were women. The time elapsed since the initial bereavement at the beginning of the treatment ranged from 14 months to 16 years ($M = 4$ years; $SD = 5$). The majority (61%) of participants were grieving the death of a child, 10% the death of a spouse/partner, 3% the death of a brother or sister, 10% the death of a parent or both parents, and 16% the death of another relative or friend. The cause of death was illness in 42% of cases, an accident in 23% of cases, homicide or suicide in 19% of cases, and stillbirth or SID (sudden infant death) in 16% of cases. Thirty-one percent of the participants had a university degree and 41% had a secondary school certificate.

All contact between the therapist and the patient during the 5-week period of 10 writing assignments occurred via e-mail (see Wagner et al., 2005, for further details of the treatment protocol). The treatment was conducted by psychologists trained in cognitive-behavioral psychotherapy who had received special training in therapeutic writing as a form of treatment for posttraumatic stress disorder

(PTSD) and complicated grief. The therapists also participated in weekly supervision sessions.

The treatment was comprised of three modules: (1) exposure to bereavement cues, (2) cognitive reappraisal, and (3) integration and restoration. Pre-, post-, and 3-month follow-up self-report assessments were administered via the Internet (Wagner et al., 2006).

The mean outcome for complicated grief symptoms was measured in terms of the three symptom clusters: intrusion, avoidance, and failure to adapt. Intrusion and avoidance were measured by the Impact of Event Scale (IES; Horowitz, Wilner, & Alvarez, 1979; Zilberg, Weiss, & Horowitz, 1982). Failure to adapt was measured by a specially developed scale (Wagner et al., 2006). The depression and anxiety subscales of the short form of the Symptoms Checklist-90 (Brief Symptom Inventory [BSI]; Derogatis, 1992) measured symptoms of depression and anxiety. The SF-12 (Ware, Kosinski, & Keller, 1996), a 12-item short form of the Medical Outcome Study Self-Report, was used to assess physical and psychological functioning.

RESULTS

An analysis of completers and noncompleters revealed that the four participants who dropped out during the treatment phase did not differ significantly in terms of demographic variables such as age, educational level, or time since loss at pretreatment, but showed significantly lower levels of baseline BSI depression, $t(24) = 3.07$, $p < .01$, and failure to adapt, $t(24) = 2.95$, $p < .01$. Although the difference was not statistically significant ($p = .07$), noncompleters ($M = 24.3$, $SD = 14.5$) showed a higher level of IES-avoidance at pretreatment than completers ($M = 14.0$, $SD = 9.3$).

Findings on complicated grief, depression, anxiety, and general psychological and physical functioning are summarized in Table 1. Because outcomes at posttreatment and 3-month follow-up relative to pretreatment have been reported in a previous article (Wagner et al., 2006), the present analysis is restricted to outcomes at 1.5-year follow-up relative to posttreatment. Table 1 documents the means

Table 1. Mean Scores and Standard Deviations for Report Measures at Pretreatment, Posttreatment, 3-Month, and 1.5-Year Follow-Up

	Pretreatment		Posttreatment		3-Month follow-up		1.5-Year follow-up	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Intrusion—IES	24.3	6.7	12.8	8.3	13.3	6.7	10.1	6.9
Avoidance—IES	17.1	10.5	6.1	6.8	6.4	6.1	4.9	4.1
Failure to adapt scale	11.3	5.1	4.8	3.5	5.4	4.8	3.9	3.7
Depression—BSI	9.7	3.8	4.1	2.4	4.8	3.9	3.7	3.5
Anxiety—BSI	7.5	3.6	4.0	3.5	4.1	3.5	3.5	3.4
Mental Health—SF-12	35.7	5.7	41.8	6.6	39.9	7.1	41.9	6.4
Physical Health—SF-12	47.2	5.5	47.0	6.1	47.5	4.9	46.9	6.0

Note. IES = Impact of Event Scale; BSI = Brief Symptom Inventory; SF-12 = Short Form of the Medical Outcome Study Self-Report. At pretest, treatment group *n* = 26, control group *n* = 25; at 1.5-year follow-up treatment group *n* = 22.

and standard deviations at all four time-points for illustrative purposes.

Paired *t* tests revealed that the treatment gains observed in the three symptom domains of complicated grief at posttreatment were maintained at 1.5-year follow-up: intrusion, *t*(21) = 1.30, *ns*; avoidance, *t*(21) = .78, *ns*, and failure to adapt, *t* < 1. The same applies to BSI scores for depression, *t* < 1, and anxiety, *t* < 1 (see Figure 1). Likewise, scores on the SF-12 subscales assessing general psychological functioning, *t* < 1, and physical functioning, *t* < 1, did not reflect significant change in symptoms since posttreatment.

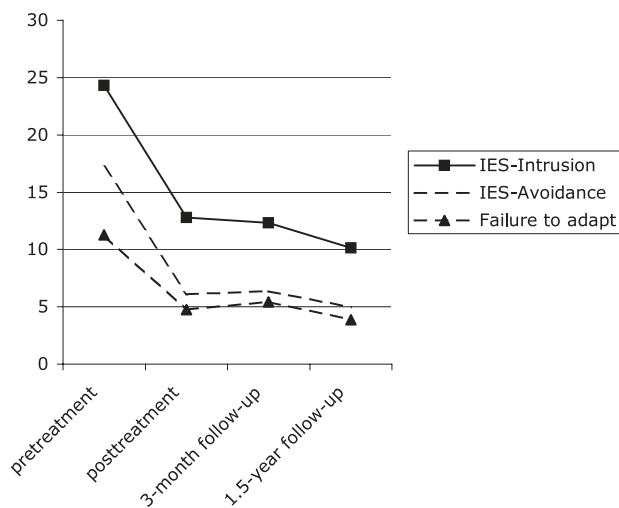


Figure 1. Complicated grief outcome measures at pretreatment, posttreatment, 3-month, and 1.5-year follow-up.

Thus, treatment gains in all symptoms were maintained at posttreatment and 1.5-year follow-up. Further, there were no significant interactions involving cause of death, $\chi^2(3, n = 22) = 1.87, ns$, relationship to the deceased person, $\chi^2(4, n = 22) = 3.88, ns$, or whether or not the death had been expected, $\chi^2 < 1$.

Finally, we investigated the clinical significance of the intervention by reference to a preestablished cut-off score. An IES cutoff score (Neal et al., 1994) of 35.0 for the combined avoidance and intrusion subscales has been proposed for nonclinical populations. Whereas 69% of participants in the treatment group were above the cutoff score at pretreatment, only one of the 22 participants (5%) still fulfilled the criteria for complicated grief at 1.5-year follow-up (see Table 2). Patients with a posttreatment score lower than 35 had achieved clinically significant change.

DISCUSSION

Posttreatment symptom levels were maintained at 1.5-year follow-up. These findings apply to both psychological indicators and physical health symptoms (SF-12 physical functioning). The latter finding is especially meaningful, given the popular assumption that the symptoms of complicated grief converge into physical symptoms (Hall & Irwin, 2001). Further, comparison of scores at 1.5-year follow-up with preestablished cutoffs showed that all but

Table 2. Percentage of Patients with Clinically Significant Complaints

	Pretreatment (%)	Posttreatment (%)	3-month follow-up (%)	1.5-year follow-up (%)
Treatment group	69	19	8	5
Waiting list	72	67	–	–

Note. At posttreatment treatment group $n = 26$, control group $n = 24$; at 3-month follow-up treatment group $n = 25$; at 1.5-year follow-up: treatment group $n = 22$. Clinically significant complaints were defined as an Impact of Event Scale Score of 35 or higher.

one patient scored below the clinically significant cutoff, indicating that changes could be maintained.

There are a number of limitations to these analyses. Because we employed a waiting-list controlled design, it would have been unethical to deny treatment to those patients originally randomized to the waiting list. Consequently, there was no control group against which the outcomes of the treated sample could be compared. A second limitation might be that (normal) grief is expected to dissipate with time (Marwit & Klass, 1995), especially in the years immediately after bereavement. Because there is scarce research on the duration of complicated grief symptoms, it remains unclear whether the symptom maintenance observed is a result of the intervention.

Finally, we cannot rule out the possibility that other grief assessments may have yielded more reliable measures of complicated grief. Future research should continue to develop and refine diagnostic systems for complicated grief disorder (or prolonged grief disorder).

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