ORIGINAL ARTICLE

Bereavement-Related Depressive Episodes

Characteristics, 3-Year Course, and Implications for the DSM-5

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Context: The *DSM-IV* criteria for major depressive episodes exclude brief episodes that are better accounted for by bereavement. However, a proposal has been made to remove this exclusion from the *DSM-5*.

Objectives: To compare the demographic and psychiatric characteristics of participants with bereavement-related, single, brief (<2 months) depressive episodes and other types of depressive episodes and to compare the future risk of depression between these groups and participants without a history of depression at baseline.

Design: A longitudinal, community-based, epidemiologic study conducted from August 1, 2001, through May 31, 2002 (wave 1), and from August 1, 2004, through September 30, 2005 (wave 2).

Setting: The US general population, including residents of Hawaii and Alaska.

Participants: Participants in the National Epidemiologic Survey on Alcohol and Related Conditions waves 1 (n=43 093) and 2 (n=34 653).

Main Outcome Measures: Demographic characteristics, age at onset, history of depression in first-degree relatives, impairment in role functioning, psychiatric comorbidities, lifetime mental health service use, and new depressive episodes during the 3-year follow-up period.

Results: Compared with participants with other types of depression, those with bereavement-related, single, brief depressive episodes were more likely to experience later onset and to be black but less likely to have had impairment in role functioning, comorbid anxiety disorders, or a treatment history at baseline. Participants with bereavement-related, single, brief episodes were less likely than those with bereavement-unrelated, single, brief episodes to experience fatigue, increased sleep, feelings of worthlessness, and suicidal ideations. The risk of new depressive episodes during the follow-up period among participants with bereavement-related, single, brief episodes was significantly lower than among participants with bereavement-unrelated, single, brief episodes and other types of depression but similar to the risk among the participants from the general population with no baseline history of depression.

Conclusions: Bereavement-related, single, brief depressive episodes have distinct demographic and symptom profiles compared with other types of depressive episodes and are not associated with increased risk of future depression. The findings support preserving the *DSM-IV* bereavement exclusion criterion for major depressive episodes in the *DSM-5*.

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BEREAVEMENT IS A UNIVERSAL human experience. Although significant variations are observed in how different people experience a loss,[1-4] many bereaved individuals experience crying spells, low mood, sleep disturbance, loss of appetite, and other depressive symptoms.[5,6] However, these symptoms commonly resolve without formal mental health treatment and often are qualitatively different from the symptoms of clinical depression.[7,8] Only in a few bereaved individuals do the depressive symptoms persist.[3]

A distinction between bereavement-related, transient, depressive symptoms and major depression is supported by clinical observations such as those of Sigmund Freud in "Mourning and Melancholia," which states that "[a]lthough grief involves grave departures from the normal attitude to life, it never occurs to us to regard it as a pathological condition and to refer it to medical treatment,"[9(p 49)] and by early empirical work, such as the studies of Paula Clayton and colleagues[10-12] published in the 1960s and 1970s. Building on this early clinical and research evidence, the *DSM-III* excluded from major depression those depressive epi-

sodes that were preceded by the death of a loved one.[13] This exclusion reflected the *DSM-III* committee's view that depressive symptoms after bereavement represent a normal reaction that results from the proper working of emotional mechanisms, although out of the context of the bereavement, those symptoms represent dysfunction.[13-16] The *DSM-III* also noted that morbid preoccupation with feelings of worthlessness, severe impairment in functioning, and psychomotor slowing suggest that bereavement is complicated by major depression.

The *DSM-III-R* incorporated uncomplicated bereavement as an exclusion criterion among the criteria for major depressive episodes and also noted that prolonged duration suggests the complication of bereavement by major depression.[17] Prolonged duration was operationalized in the *DSM-IV* as being longer than 2 months after the loss of a loved one.[18]

The recently publicized draft version of the *DSM-5*, however, removed the bereavement exclusion from the recommended criteria for the major depressive episode,[19,20] a move that has led to some criticism.[14,21-23] Critics argue that removing the bereavement exclusion results in pathologizing the normal bereavement reaction and may lead to inappropriate medication treatment.[15,21]

In defense of the *DSM-5* Work Group recommendation, one of the Work Group members, Kenneth S. Kendler, MD, pointed to the failure of past studies to produce consistent evidence supporting a distinction between bereavement-related and bereavement-unrelated depression.[24] However, findings from past studies varied considerably with regard to research design, sampling, and diagnostic criteria.[25-27] Furthermore, few of those studies were based on the *DSM-IV* criteria, or on large representative population samples or were focused on depressive syndromes of brief duration; many were based on small samples and were likely underpowered.

A study based on the cross-sectional National Comorbidity Survey found that participants with "complicated" *DSM-III-R* depression triggered by bereavement or other loss are significantly more symptomatic and impaired and use more services than those with "uncomplicated" depression.[28] Complicated depression was characterized in that study by morbid preoccupation with worthlessness, marked impairment, psychomotor retardation, duration longer than 12 weeks, and suicidal ideations or attempts. A more recent report based on these data found that compared with the *DSM-III-R* criteria for bereavement-related episodes, the narrower *DSM-IV* criteria reduced the validity of the bereavement exclusion by misclassifying many "low-pathology conditions as disorders."[29]

Two other recent population studies have examined the validity of bereavement-related depression. One study[30] based on a Virginia twin cohort found some differences between bereavement-related depression and depressive episodes related to other stressors with regard to demographic characteristics and symptoms. However, the authors concluded that the similarities between these episodes overshadowed the differences. Another population study[31] from Lebanon failed to find any significant differences with regard to duration, impairment, and bereavement exclusion symptoms between bereavement-related and bereavement-unrelated depressive episodes.

Studies based on clinical samples have produced conflicting results. A large study[32] of approximately 18 000 patients from France found that patients excluded from a *DSM-IV* diagnosis of depression due to the bereavement exclusion criterion had more symptoms than patients who met all the *DSM-IV* criteria for major depressive episodes. However, a smaller study[33] of patients with first depressive episodes in Denmark found no differences between patients with bereavement-related and bereavement-unrelated depressive episodes with regard to symptoms or other characteristics.

The need clearly exists for longitudinal studies based on large, representative, community samples to provide guidance for future revisions of the diagnostic criteria. This study investigated the distinction between bereavement-related and bereavement-unrelated, brief depressive episodes and nonbrief, recurrent depressive episodes in a longitudinal, general population survey. More specifically, the study tested the hypothesis that, compared with individuals with bereavement-unrelated depressive episodes, those with bereavement-related episodes have distinct demographic and symptom profiles and a less severe presentation with a lower risk of subsequent depressive episodes. The study also tested the hypothesis that individuals with bereavement-related depressive episodes do not have a higher risk of subsequent depressive episodes compared with individuals without a lifetime history of depression at baseline. The choice of demographic and psychiatric characteristics in these comparisons was based on past research regarding bereavement-related depression[25-27] and on epidemiologic studies of major depression.[34,35]

METHODS

STUDY SAMPLE

The sample for the study was drawn from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) waves 1 and 2. The design and the sample characteristics of the NESARC have been described previously.[34,36,37] Briefly, NESARC is a survey of the US general population, including residents of Hawaii and Alaska, conducted by the National Institute on Alcohol Abuse and Alcoholism. The interviews were conducted in face-to-face encounters with the participants. The NESARC sample was weighted to adjust for the unequal probabilities of selection and to provide nationally representative estimates.

Wave 1 of the NESARC was fielded from August 1, 2001, through May 31, 2002, and included 43 093 participants 18 years or older. Of these, 39 959 were eligible for wave 2 interviews. Ineligible respondents included those who at the time of the follow-up interview were deceased, deported, mentally or physically impaired, or on active military duty. A total of 34 653 of eligible wave 1 participants were successfully followed up in the wave 2 survey from August 1, 2004, through September 30, 2005. The response rates for wave 1 and eligible wave 2 surveys were 81.0% and 87.0%, respectively.

ASSESSMENTS

Depressive symptoms, major depressive episodes, and other mental disorders were ascertained using the Alcohol Use Disorder and Associated Disabilities Interview Schedule–*DSM-IV* version[38,39]—a structured diagnostic interview designed for use by lay interviewers to derive lifetime and 12-month diagnoses

of mood, anxiety, substance abuse, and other common mental disorders. Major depressive episodes were characterized by a period of 2 weeks or longer during which the participant experienced 5 or more of the 9 *DSM-IV* symptom criteria and also met the clinical significance criteria (ie, impairment or distress). Because the focus of the study was on depressive episodes in the context of major depression, depressive episodes among individuals with a history of manic, mixed, or hypomanic episodes were not included.

Four groups with a history of depressive episodes at baseline (wave 1) were identified: participants with a single (ie, only 1 lifetime episode), brief (ie, <2 months), bereavement-related depressive episode; participants with a single, brief, bereavement-unrelated depressive episode; participants with a single, nonbrief (ie, ≥2 months) depressive episode; and participants with recurrent (ie, ≥2) depressive episodes. A fifth comparison group included participants without any lifetime history of depression at baseline. Comparison of participants with bereavement-related and bereavement-unrelated, single, brief depressive episodes reduces the potential confounding effect of the duration and recurrence of episodes.[40] Furthermore, symptoms could only be accurately compared across these 2 groups because the NESARC assessed symptoms only for 1 lifetime episode and the experience of symptoms may be related to the duration of episode. The 2 other depression groups experienced most of the depressive episodes in the community; comparison with these groups allows for assessment of demographic and psychiatric differences between bereavement-related depressive episodes and the more common forms of depression in the community.

The relationship between the depressive episode and bereavement was assessed by asking participants, "Did that time when you (felt sad, blue, depressed, or down/didn't care about things or enjoy things) begin to happen just after someone close to you died?" Participants who responded positively to this question were rated as having had a bereavement-related episode. The NESARC only assessed bereavement history for episodes lasting less than 2 months.

Major depressive episodes in the follow-up period also were assessed using the Alcohol Use Disorder and Associated Disabilities Interview Schedule (AUDADIS) conducted in wave 2. Participants were asked specifically about new episodes since the baseline interview. For this study, depressive episodes were only counted in the follow-up if they were not bereavement related.

Other mental disorders assessed at baseline included dysthymia, more serious anxiety disorders (ie, generalized anxiety disorder, panic disorder, and social anxiety), and alcohol dependence. All were assessed using the AUDADIS based on the *DSM-IV* criteria.

History of depression in first-degree relatives was assessed by asking the participants whether their first-degree relatives had ever been "depressed." Specific symptoms of depression, course, or treatment sought for depression were not assessed. Questions were asked separately for mother, father, brothers, sisters, sons, and daughters. A positive response to any of these questions was rated as a positive family history.

Impairment in role functioning was assessed by 5 questions asked after questions regarding depression symptoms in the AUDADIS.[34] Four questions asked about impairment in functioning at work or activities because of depression, including any trouble doing work, schoolwork, or taking care of one's home or family; not being able to do the things the participant usually did or wanted to do; doing a lot less than usual or being less active; and depending a lot more on others to take care of everyday tasks or to give the participant reassurance and attention. One question assessed impairment in relationships by asking whether the participant had arguments or friction with friends, family, coworkers, or others as a result of depression. A positive response to any of these questions was rated as indicating impairment in role functioning. Also, participants who responded affirmatively to any of the 4 work-and-activities-impairment questions and the impairment-in-relationships question were rated as markedly impaired.

Treatment history was assessed by asking the participants whether they had ever sought treatment for their depressive symptoms from a counselor, therapist, physician, or other professional; had ever been hospitalized overnight; or had ever gone to the emergency department because of depression. In addition, the participants were asked whether a physician had ever prescribed medication for their depression. Other variables in the analyses included sex, race/ethnicity (ie, non-Hispanic white, non-Hispanic black, Hispanic, or other), age at onset of depression, and current age at baseline.

STATISTICAL ANALYSIS

Analyses were conducted in 3 stages. First, the demographic characteristics, family history, psychiatric comorbidities, impairment in role functioning, and service use patterns were compared between participants with bereavement-related, single, brief depressive episodes and other groups described earlier. Second, the prevalence of different depressive symptoms was compared between participants with bereavement-related and bereavement-unrelated, single, brief depressive episodes. As noted, the comparisons of symptoms were limited to these 2 groups. In the third stage of the analyses, the risk of new major depressive episodes in the follow-up period was compared across the groups. Binary logistic regression was used for all stages of the analyses. The third stage of the analyses adjusted for sex, age, race/ethnicity, family history of depression, and psychiatric comorbidities. To assess the possible confounding effects of impairment and treatment history, a further multivariate model that included these variables in addition to the control variables listed was tested. Participants without a lifetime history of depression at baseline were excluded from the analysis because questions about impairment and treatment history were not asked from participants without depressive symptoms.

As noted previously, bereavement-related depressive episodes were defined for the main analyses only on the basis of the duration and bereavement history. However, according to the *DSM-IV* exclusion criterion, episodes characterized by marked impairment, morbid preoccupation with worthlessness, suicidal ideations, psychotic symptoms, and psychomotor slowing cannot be attributed to bereavement and should be classified as major depressive episodes. These indicators, except for psychotic symptoms, were captured in the NESARC. In further analyses, bereavement-related episodes were limited to bereavement-related, single, brief depressive episodes without any of the listed features. The stages of analyses described earlier were repeated for this narrower group of bereavement-related depressive episodes (labeled herein as *DSM-IV* bereavement-related depressive episodes).

The definition of depressive episodes for this study included lifetime episodes. In further analyses, the effect of time since onset of the depressive episode on reported symptoms and on the risk of new depressive episodes also was assessed. Time since onset of the depressive episode was computed by subtracting the age at onset of the episode from the current age. These analyses were limited to participants with single, brief depressive episodes.

The NESARC used a complex sampling design. Analyses took into account survey weights, clustering, and stratification of the data. The survey analysis routines of Stata version 11.0 software[41] were used for these analyses. All percentages reported are weighted by the study weights.

RESULTS

BASELINE CHARACTERISTICS

A total of 1199 participants reported having had only 1 depressive episode lasting less than 2 months that met the *DSM-IV* symptom and clinical significance criteria for major depressive episodes. In 446 of these participants, the depressive episode was preceded by bereavement, and in another 753 it was not. In addition, 2067 participants had a history of single, nonbrief depressive episodes and 3006 had a history of recurrent episodes. Thus, participants with bereavement-related, single, brief depressive episodes comprised 34.8% of all participants with single, brief depressive episodes and 7.7% of all participants with depressive episodes. The demographic and psychiatric characteristics of the participants with bereavement-related, single, brief depressive episodes are presented in **Table 1** and compared with the characteristics of the other groups of participants.

Compared with participants with bereavement-unrelated, single, brief depressive episodes, those with bereavement-related episodes were more likely to experience onset in the age range of 50 years or older and to be non-Hispanic black; however, they were less likely to have any impairment or marked impairment in role functioning. Participants with bereavement-related episodes also were less likely to have an age at onset in the 20- to 29-year range, to have a comorbid anxiety disorder, to have sought treatment, or to have been prescribed medications for depression (Table 1).

Participants with bereavement-related depressive episodes also differed from participants with nonbrief, single depressive episodes and those with recurrent depressive episodes (Table 1). Participants with bereavement-related episodes were more likely than participants in either group to be black and to have an onset in the age range of 50 years or older but less likely to be white, to have comorbid anxiety disorders or dysthymia, to have impairment in functioning, and to have a treatment history. Compared with participants with recurrent depressive episodes, those with bereavement-related episodes were less likely to have a family history of depression, comorbid alcohol dependence, and onset before the age of 20 years.

Analyses also revealed similarities among participants with bereavement-related episodes and other depression groups. All 4 groups included a larger percentage of women than men. All 4 groups also included a larger percentage of participants with a history of depression in first-degree relatives when compared with the general-population participants without a lifetime history of depression at baseline (Table 1).

SYMPTOM PROFILES

Comparison of symptoms revealed significant differences between participants with bereavement-related and bereavement-unrelated, single, brief depressive episodes (**Figure**). Compared with participants with bereavement-unrelated episodes, those with bereavement-related episodes were less likely to experience feelings of worthlessness (29.6% vs 53.3%; odds ratio [OR], 0.37; 95% confidence interval [CI], 0.27-0.50; $P<.001$), suicidal ideations (11.3% vs 24.2%; 0.40; 0.26-0.62; $P<.001$), increased sleep (32.0% vs 44.1%; 0.61; 0.44-0.84; $P=.003$), or fatigue (75.3% vs 83.8%; 0.59; 0.43-0.82; $P=.002$). However, they were more likely to report decreased sleep (79.3% vs 72.0%; OR, 1.49; 95% CI, 1.03-2.14; $P=.04$) (Figure). Adjusting the comparisons for age, sex, and race/ethnicity did not change the results substantively (data not shown). However, changes in sleep pattern were no longer statistically significant in these adjusted analyses.

Participants with bereavement-related depressive episodes had somewhat fewer symptoms compared with participants with bereavement-unrelated episodes (6.4 vs 6.7 of the total 9 *DSM-IV* major depressive episode symptoms, $\beta=-0.28$, SE = 0.09, $P=.003$). However, the range of values for the number of symptoms was limited because a minimum of 5 symptoms are required for a *DSM-IV* depressive episode diagnosis.

FOLLOW-UP DEPRESSIVE EPISODES

Participants with bereavement-related, single, brief depressive episodes were not more likely than participants without a lifetime history of depression at baseline to experience a depressive episode during the 3-year follow-up (8.2% vs 7.5%; **Table 2**). However, participants with bereavement-unrelated, single, brief depressive episodes had an elevated risk of experiencing a depressive episode at follow-up compared with participants without a history of depression (14.7% vs 7.5%) and compared with those with bereavement-related depressive episodes (14.7% vs 8.2%, adjusted odds ratio [AOR], 1.88; 95% CI, 1.05-3.38; $P=.04$). Participants with single, nonbrief depressive episodes also had an increased risk of new depressive episodes in follow-up compared with participants with bereavement-related, single, brief depressive episodes (20.1% vs 8.2%; AOR, 2.21; 95% CI, 1.29-3.81; $P=.005$), as did participants with recurrent depressive episodes compared with those with bereavement-related, single, brief depressive episodes (27.2% vs 8.2%; 2.76; 1.64-4.67; $P<.001$).

Follow-up depressive episodes were less common in men than women and in middle-aged and older adults than younger adults (Table 2). However, follow-up episodes were more common in participants with a family history of depression, in those with comorbid disorders, and in participants who were prescribed medications for depression at baseline. The association with prescription medications may be attributable to greater severity (and risk of recurrence) of depression among participants who seek treatment and are prescribed medications.

FURTHER ANALYSES

In further analyses, participants with bereavement-related depressive episodes were limited to 162 individuals with single, brief episodes without marked impairment or symptoms of psychomotor slowing, feelings of worthlessness, or suicidal ideations (ie, *DSM-IV* bereavement-related depressive episodes). These participants were compared with 1037 individuals with single, brief de-

Table 1. Comparisons of Participants With Bereavement-Related, Single, Brief Depressive Episodes With Other Participants in the National Epidemiologic Survey on Alcohol and Related Conditions[a]

Characteristic	No History of Depression, % (n=36 821)[a]	Single, Brief Depressive Episode, %[a]		Single, Nonbrief Depressive Episode, % (n=2067)[a]	Recurrent Depressive Episodes, % (n=3006)[a]
		Bereavement Related (n=446)	Bereavement Unrelated (n=753)		
Sex					
Male	50.5[b]	34.0	33.9	33.6	31.3
Female	49.5	66.0	66.1	66.4	68.7
Race/ethnicity					
Non-Hispanic white	69.7	71.6	75.4	77.2[c]	79.4[d]
Non-Hispanic black	11.6	14.4	8.1[d]	7.8[b]	7.1[b]
Hispanic	12.1	9.1	10.3	9.3	7.5
Other	6.6	4.9	6.2	5.8	5.9
History of depression in first-degree relatives					
Any	26.6[b]	52.8	48.7	58.7	67.7[b]
None	73.4	47.2	51.3	41.3	32.4
Lifetime anxiety disorder comorbidity at baseline					
Present	8.6[b]	15.9	23.5[c]	27.9[b]	38.4[b]
Absent	91.5	84.2	76.5	72.1	61.6
Lifetime dysthymia comorbidity at baseline					
Present	2.6[c]	1.3	2.2	20.4[b]	24.1[b]
Absent	97.4	98.7	97.8	79.6	75.9
Lifetime alcohol dependence comorbidity at baseline					
Present	11.2	14.0	15.8	19.0	23.4[b]
Absent	88.9	86.0	84.3	81.0	76.6
Age at onset of depression, y[e]					
<20	NA	17.5	16.8	13.3	35.3[b]
20-29	NA	25.0	34.0[c]	25.7	28.7
30-39	NA	22.2	22.5	25.8	18.4
40-49	NA	15.4	14.1	20.2	10.4[c]
≥50	NA	19.8	12.6[d]	15.0[c]	7.1[b]
Impairment in role functioning associated with a depressive episode[f]					
Any	NA	83.1	91.1[d]	92.3[b]	95.6[b]
None	NA	16.9	8.9	7.7	4.4
Marked impairment in role functioning associated with a depressive episode[f]					
Present	NA	21.1	39.8[b]	38.2[b]	48.9[b]
Absent	NA	78.9	60.2	61.8	51.1
Ever received outpatient, inpatient, or emergency department treatment for depression[g]					
Any	NA	23.0	37.3[b]	51.4[b]	62.7[b]
None	NA	77.0	62.8	48.6	37.3
Ever received prescription medications for treatment of depression[g]					
Any	NA	14.3	27.6[b]	40.1[b]	50.4[b]
None	NA	85.7	72.5	60.0	49.6

Abbreviation: NA, not applicable.
[a] All percentages are weighted. Some percentages sum to greater than 100 due to rounding error.
[b] Different from participants with bereavement-related, single, brief depressive episode at $P<.001$.
[c] Different from participants with bereavement-related, single, brief depressive episode at $P<.05$.
[d] Different from participants with bereavement-related, single, brief depressive episode at $P<.01$.
[e] Questions regarding age at onset were asked only of participants with a history of depressive symptoms at baseline.
[f] Questions regarding impairment in role functioning were asked only of participants with a history of depressive symptoms at baseline.
[g] Questions regarding treatment history were asked only of participants with a history of depressive symptoms at baseline.

pressive episodes that were not bereavement related or, if bereavement related, were associated with marked impairment, psychomotor slowing, feelings of worthlessness, or suicidal ideations (ie, *DSM-IV* bereavement-unrelated depressive episodes).

The results of these comparisons were similar to those of the main analyses. Participants with *DSM-IV* bereavement-related episodes were less likely than those with *DSM-IV* bereavement-unrelated episodes to have an age at onset in the 20- to 29-year range (17.8% vs 33.0%) but more likely to have an age at onset of 50 years or older (24.7% vs 13.9%). Participants in the *DSM-IV* bereavement-related group also were less likely to have received any mental health treatments for depression (19.5% vs 33.3%) or prescription medications (9.1% vs 23.9%). All comparisons were statistically significant at $P<.05$.

Participants with *DSM-IV* bereavement-related depressive episodes also were less likely than those with

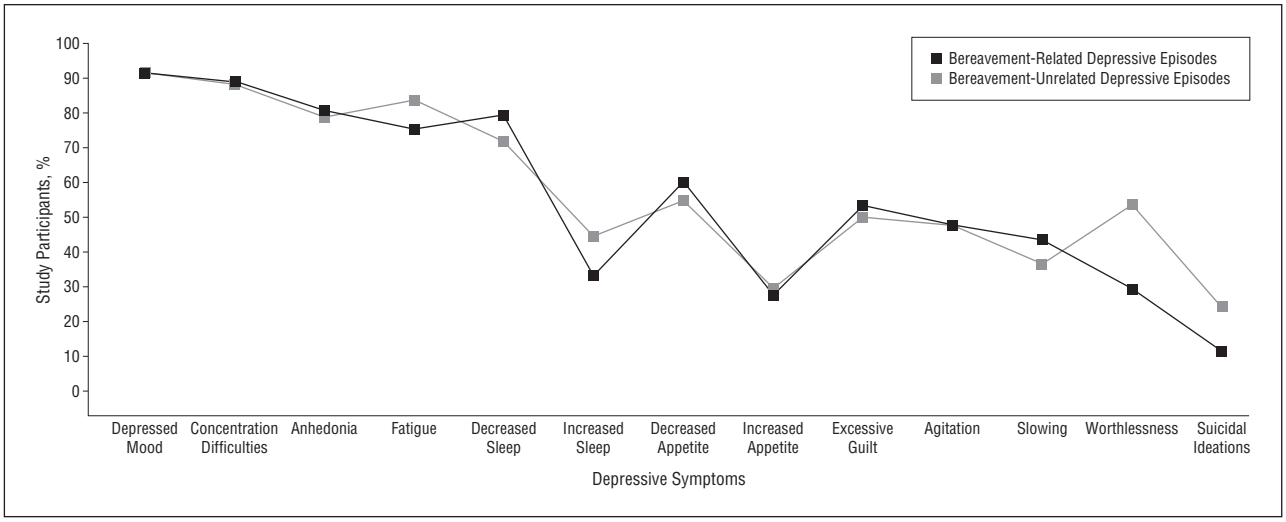

Figure. Prevalence of depressive symptoms in participants with bereavement-related and bereavement-unrelated, single, brief depressive episodes in the National Epidemiologic Survey on Alcohol and Related Conditions. Percentages are based on weighted data.

DSM-IV bereavement-unrelated episodes to experience increased sleep (20.4% vs 41.8%) and more likely to experience decreased sleep (86.9% vs 72.5%). Both comparisons were statistically significant at $P<.05$. Comparisons with regard to impairment and symptoms of psychomotor slowing, feelings of worthlessness, and suicidal ideations were not conducted because these characteristics were used to define groups.

Participants with *DSM-IV* bereavement-related, single, brief depressive episodes at baseline were not more likely than the general population participants without a lifetime history of depression to experience new depressive episodes during the 3-year follow-up (4.3% vs 7.5%; AOR, 0.48; 95% CI, 0.23-1.03; $P=.06$). However, participants with *DSM-IV* bereavement-unrelated, single, brief depressive episodes had an elevated risk of experiencing new depressive episodes at follow-up compared with participants without a lifetime history of depression (13.7% vs 7.5%; AOR, 1.47; 95% CI, 1.14-1.89; $P=.004$) and compared with those with *DSM-IV* bereavement-related depressive episodes (13.7% vs 4.3%; 3.03; 1.36-6.74; $P=.008$). Participants excluded from the group of bereavement-related depressive episodes because of the presence of bereavement exclusion symptoms or marked impairment did not differ from the *DSM-IV* bereavement-related depressive episode group with regard to future risk of depressive episodes (data not shown).

Also in further analyses, the effect of time since onset of the depressive episode on symptom profiles and the risk of future episodes was assessed. The median time since onset for both groups with single, brief depressive episodes was 5 years and did not differ significantly between the 2 groups. Comparisons across the bereavement-related and bereavement-unrelated depressive episodes, adjusted for time since onset of the depressive episode, produced similar results to the main analyses with regard to the patient characteristics and symptoms (data not shown). When time since depressive episode was entered into a model for comparing the risk of subsequent depressive episodes, bereavement-related episodes continued to have a significantly lower risk of recurrence compared with bereavement-unrelated episodes (data not shown).

COMMENT

This study found similarities and differences among bereavement-related, single, brief depressive episodes; bereavement-unrelated, single, brief depressive episodes; and other types of depressive episodes. Similar to bereavement-unrelated, single, brief depressive episodes, bereavement-related episodes were more common in women than men and were associated with increased prevalence of depressive symptoms in first-degree relatives.

Other population studies[28,30] of bereavement-related depressive episodes also found a greater prevalence among women. This pattern of sex distribution is consistent with that reported by past prevalence studies of depressive symptoms and major depression[42,43] and may be attributable to differences in social roles, illness behavior, or biological factors. In contrast, past research pertaining to the family history of depression in bereavement-related depressive episodes has produced less consistent results.[26,33] The finding of a similar prevalence of depression in family members of participants with bereavement-related and bereavement-unrelated, single depressive episodes may suggest a shared vulnerability.[44] However, the NESARC data regarding family history should be interpreted with caution because they were not corroborated by independent interviews with the family members and were based on the participants' global impressions of that which they perceived to be depression in their relatives. Furthermore, individuals with a history of psychological problems may be more likely to detect and recall mental health problems in their family members.[45]

Along with similarities, significant differences also were observed between participants with bereavement-related, single, brief depressive episodes and those with bereavement-unrelated episodes. Bereavement-related episodes were characterized by less frequent impairment in functioning, especially marked impairment defined as im-

Table 2. Multivariate Logistic Regression Analyses of Predictors of Depressive Episodes During 3-Year Follow-up in the National Epidemiologic Survey on Alcohol and Related Conditions

Variable	Depressive Episodes During Follow-up, No. (Row %)[a]		Adjusted Odds Ratio (95% CI)	
	None	Any	Including All Groups	Excluding Those With No History of Depression at Baseline
History of depressive episodes at baseline				
No history of depression	27 074 (92.5)	2320 (7.5)	1.00 [Reference]	NA
Bereavement-related, single, brief episode	336 (91.8)	31 (8.2)	0.85 (0.52-1.39)	1.00 [Reference]
Bereavement-unrelated, single, brief episode	529 (85.3)	93 (14.7)	1.59 (1.19-2.13)[b]	1.82 (1.01-3.29)[c]
Single, nonbrief episode	1389 (80.0)	345 (20.1)	1.88 (1.56-2.27)[d]	2.33 (1.35-4.01)[b]
Recurrent episodes	1827 (72.8)	709 (27.2)	2.34 (2.01-2.73)[d]	2.93 (1.72-5.00)[d]
Sex				
Female	17 520 (87.4)	2569 (12.6)	1.00 [Reference]	1.00 [Reference]
Male	13 635 (93.8)	929 (6.3)	0.51 (0.46-0.57)[d]	0.61 (0.49-0.75)[d]
Age at baseline, y				
18-29	5347 (88.1)	779 (11.9)	1.00 [Reference]	1.00 [Reference]
30-39	6478 (89.6)	821 (10.5)	0.81 (0.70-0.93)[b]	0.70 (0.54-0.90)[b]
40-49	6342 (89.1)	804 (10.9)	0.78 (0.67-0.90)[b]	0.69 (0.54-0.89)[b]
50-64	6791 (91.7)	694 (8.4)	0.60 (0.51-0.70)[d]	0.56 (0.43-0.73)[d]
≥65	5693 (95.1)	311 (4.9)	0.42 (0.35-0.50)[d]	0.40 (0.28-0.55)[d]
Race/ethnicity				
Non-Hispanic white	18 090 (90.3)	2084 (9.7)	1.00 [Reference]	1.00 [Reference]
Non-Hispanic black	5980 (91.1)	597 (8.9)	1.02 (0.90-1.61)	1.18 (0.93-1.49)
Hispanic	5703 (90.7)	653 (9.3)	1.06 (0.92-1.23)	0.82 (0.63-1.06)
Other	1382 (90.1)	164 (9.9)	1.10 (0.88-1.37)	1.00 (0.67-1.49)
Family history of depression in first-degree relatives				
None	21 763 (93.2)	1757 (6.8)	1.00 [Reference]	1.00 [Reference]
Any	9392 (84.8)	1741 (15.2)	1.47 (1.32-1.63)[d]	1.10 (0.93-1.31)
Lifetime anxiety disorder comorbidity at baseline				
Absent	28 004 (92.4)	2475 (7.6)	1.00 [Reference]	1.00 [Reference]
Present	3151 (76.1)	1023 (23.9)	2.10 (1.87-2.35)[d]	1.48 (1.24-1.75)[d]
Lifetime dysthymia comorbidity at baseline				
Absent	29 951 (91.5)	2905 (8.5)	1.00 [Reference]	1.00 [Reference]
Present	1204 (68.5)	593 (31.5)	2.13 (1.82-2.49)[d]	1.42 (1.17-1.72)[b]
Lifetime alcohol dependence comorbidity at baseline				
Absent	27 875 (91.4)	2821 (8.7)	1.00 [Reference]	1.00 [Reference]
Present	3280 (83.9)	677 (16.1)	1.48 (1.31-1.68)[d]	1.22 (0.99-1.50)
Impairment in role functioning associated with a depressive episode[e]				
None	26 023 (93.9)	1778 (6.1)	NA	1.00 [Reference]
Any	5132 (75.4)	1720 (24.6)	NA	1.29 (0.86-1.94)
Ever received outpatient, inpatient, or emergency department treatment for depression[f]				
None	28 317 (92.8)	2326 (7.2)	NA	1.00 [Reference]
Any	2838 (71.3)	1172 (28.7)	NA	1.19 (0.96-1.47)
Ever received prescription medications for treatment of depression[f]				
None	28 906 (92.5)	2481 (7.5)	NA	1.00 [Reference]
Any	2249 (69.6)	1017 (30.4)	NA	1.31 (1.07-1.60)[b]

Abbreviations: CI, confidence interval; NA, not applicable.
[a] All percentages are weighted.
[b] $P < .01$.
[c] $P < .05$.
[d] $P < .001$.
[e] Questions regarding impairment in role functioning were asked only of participants with a history of depressive symptoms at baseline.
[f] Questions regarding treatment history were asked only of participants with a history of depressive symptoms at baseline.

pairment in at least 2 domains: lower prevalence of comorbid anxiety disorders and less frequent treatment seeking. The 2 types of episodes also differed with regard to age and racial/ethnic distribution and symptom profiles. Bereavement-related depressive episodes were less likely to become manifest through feelings of worthlessness, suicidal ideations, fatigue, or increased sleep and more likely to become manifest through decreased sleep.

Furthermore, participants with bereavement-related episodes differed from those with single, nonbrief episodes and recurrent episodes with regard to demographic characteristics and age at onset and, more importantly, with regard to psychiatric comorbidities, impairment in role functioning, and treatment history. Overall, participants with bereavement-related episodes had fewer comorbidities, less impairment in role

functioning, and a lower rate of treatment seeking than participants with other types of depressive episodes.

The study also found significant differences in the risk of depression in follow-up between participants with bereavement-related and bereavement-unrelated depressive episodes at baseline. Participants with bereavement-unrelated, single, brief depressive episodes were almost twice as likely as those with bereavement-related, single, brief episodes to experience a depressive episode during follow-up. Similarly, participants with a history of single, nonbrief depressive episodes and those with recurrent episodes had a 2-fold to 3-fold higher risk of new episodes than participants with bereavement-related, single, brief episodes. Remarkably, the risk of new depressive episodes in participants with bereavement-related, single, brief depressive episodes was no more than the risk in members of the general population without a history of depression at baseline.

Some of the findings of this study (and, notably, those regarding the risk of subsequent episodes) are at variance with the findings from previous studies as reviewed by Lamb and colleagues[25] and Zisook and colleagues,[26,27] which did not find clear distinctions between bereavement-related and bereavement-unrelated depressive episodes. On the basis of these reviews, these authors and others[24,46] have advocated removing the bereavement exclusion criterion from the upcoming edition of the *DSM*. However, many of the primary studies included in those reviews were clinical studies with small sample sizes, and few studies directly compared large representative population samples of individuals with bereavement-related and bereavement-unrelated depressive episodes longitudinally.

The findings of the present study are also at variance with the findings of previous community studies.[28,30,31] Unlike those studies, a main focus of the present study was on comparing single, brief episodes that differed with regard to bereavement history. Furthermore, by using a longitudinal design, the present study was able to compare the risk of future depressive episodes between participants with bereavement-related depressive episodes and nondepressed adults in the general population.

Nevertheless, limitations of this study and the NESARC data should be considered in interpreting the findings. First, the NESARC question used to define the bereavement-related depressive episodes did not inquire about a specific time lag between the death of a loved one and the beginning of depression. Furthermore, the reliability of retrospective reports of bereavement events and the accuracy of self-reports of the association of bereavement and depressive episodes have not been assessed. Second, the NESARC did not ascertain the relationship with the person who had died or whether the death was expected or unexpected. The moderating effect of these factors needs to be assessed in future research. Third, the NESARC diagnoses were based on retrospective self-reports of symptoms elicited using a lay-administered structured interview. These diagnoses do not necessarily correspond with physician diagnoses. Fourth, the range of variables assessed in the NESARC was limited. Important correlates of depression, such as cognitive measures,[47] personality characteristics,[48] and genetic markers,[49] were not assessed. Also, assessment of impairment in role functioning was limited. More accurate assessment of functioning requires objective measurement based on more detailed information. Fifth, the study did not examine the prevalence, characteristics, and implications of bereavement-related depressive episodes in the context of a history of recurrent depression. An important related question for future research is whether individuals with prior recurrent depressive episodes are at increased risk of bereavement-related depressive episodes. Sixth, the bereavement-unrelated, single, brief depressive episodes in this study are likely heterogeneous, including depressive episodes related to other stressful events and episodes unrelated to stressful events.[28,30] Seventh, although the study did not find significant differences with regard to future course between bereavement-related depressive episodes that met the symptom and impairment requirements for *DSM-IV* bereavement exclusion and those that did not meet these requirements, maintaining these symptom and impairment requirements in the *DSM-5* may be justifiable on clinical grounds. Finally, limiting bereavement-related depressive episodes to episodes shorter than 2 months may be too restrictive, as suggested by a recent study.[29] The optimal duration needs to be assessed empirically in future research.

In the context of these limitations, the findings of significant differences between bereavement-related and bereavement-unrelated, brief depressive episodes, with regard to morbidity, symptom profiles, and future course, call into question the recommendation of the *DSM-5* committee to eliminate the *DSM-IV*'s bereavement exclusion for major depressive episodes. Eliminating the bereavement exclusion inappropriately may expand the definition of major depression to include emotional reactions to loss that are self-limiting and not associated with future risk of depression, at least not in the short term.

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