Insomnia and Complicated Grief Symptoms in Bereaved College Students

Heather Gaines Hardison, Robert A. Neimeyer, and Kenneth L. Lichstein

Department of Psychology
The University of Memphis

In this study, we extended previous research by concentrating on sleep- and grief-related symptoms in a cohort of bereaved college students, in view of the potential for each of these problems to exacerbate the other. A sample of 815 college students completed the Inventory of Complicated Grief (H. G. Prigerson & S. C. Jacobs, 2001), along with an assessment of diagnostic criteria for insomnia and associated sleep behaviors. As predicted, the rate of insomnia was significantly higher (22%) in the bereaved sample than in a nonbereaved comparison group (17%), a difference that was particularly pronounced in terms of middle insomnia. Also as hypothesized, bereaved insomniacs reported higher complicated grief scores than bereaved noninsomniacs, and several specific sleep variables (including sleep-onset insomnia related to nighttime rumination about the loss and sleep-maintenance insomnia associated with dreaming of the deceased) were significantly related to complicated grief symptomatology.

Insomnia has been commonly associated with bereavement. Thus, on the one hand, bereavement researchers have reported that grief is linked to impairments in sleep (Prigerson, Frank, et al., 1995), and on the other hand, sleep researchers list bereavement among the common causes of insomnia (Lichstein & Reidel, 1994). Despite this recognition of the mutual relevance of sleep and bereavement studies, the relation between sleep disturbance and grief symptomatology has received surprisingly little systematic attention. The goals of this study were to establish the frequency of insomnia and associated sleep behaviors among a large cohort of bereaved young adults and to investigate their relation to complicated grief symptomatology.

Requests for reprints should be sent to Robert A. Neimeyer, Department of Psychology, The University of Memphis, Memphis, TN 38152. E-mail: neimeyer@memphis.edu
Insomnia has been shown to be the most common form of sleep disorder, with prevalence rates of chronic insomnia approximating 15% of all adults (Lichstein & Reidel, 1994). Comparatively little is known, however, about the prevalence and form of sleep disturbance in college adults, as an early focus on insomnia in this population has been followed by a shift in attention to sleep disorders in later life. In two separate studies, Borkovec and Fowles (1973) and Borkovec (1977) both reported an 18% prevalence of insomnia in groups of 650 and 480 college students, respectively. Similarly, Lichstein (1983) found a 17% rate of chronic insomnia in a sample of 176 college students, a figure that exceeds the 6 to 12% prevalence rate for adults ages 20 to 29 in general (Lichstein, Durrence, Riedel, Taylor, & Bush, in press). In this study, we updated and extended these findings and added detail regarding the character and correlates of sleep disturbance in a college population.

There have been a few studies done specifically to link bereavement, defined as the objective situation of having lost someone significant (Stroebe, Hansson, Stroebe, & Schut, 2001XX), to sleep disruption. In one early study, Parkes (1970) found that 17 of 22 widows reported insomnia in the 1st few weeks of bereavement after the loss of their spouse. In another study, Parkes and Brown (1972) found that disturbances of sleep were more common among the bereaved than nonbereaved over a year following the loss. The bereaved reported trouble falling asleep or awakening in the middle of the night as new complaints or ones that had become worse in the previous year.

Most previous studies on bereavement have focused on elderly widows or widowers because of their greater likelihood of suffering traumatic life events, such as the death of a spouse, child, a close friend, or relative (De Berry, 1982). In this study, we were interested in studying college students, as few studies have examined the impact of the death of a friend or relative during the college years. Those studies that have been conducted, however, suggest that bereavement in college students is more prevalent than many recognize. Balk (2001) found that 22 to 30% of the college students he studied were in the 1st year of bereavement following the death of a family member or friend and that 35 to 48% were within 2 years of such a loss. If one quarter to one half of all college students are coping with bereavement-related stress, this issue is an important one to study, as grief can place students at risk of academic difficulties and can interfere with the developmental, occupational, and social demands of the college years (Balk & Vesta, 1998; Janowiak, Mei-tal, & Drapkin, 1995). One reason that this age group has often been overlooked is that grief issues are not often a presenting complaint in college students seeking health or mental health services. They are likely to complain instead of resulting symptomatology, including inability to concentrate and study, loss of motivation, and insomnia, which can be misattributed to general stress rather than bereavement-related complications (Janowiak et al., 1995).

The term complicated grief suggests that the symptoms of grief are unresolved and may cause impairment in daily activities, including performance in social and
occupational roles. Such symptoms include intense searching, yearning, preoccupation with thoughts of the deceased, crying, disbelief regarding the death, feeling stunned by the loss, and lack of acceptance of the death (Prigerson, Frank, et al., 1995). These symptoms are not as marked and persistent in normal grief reactions, which are the usual psychological and emotional reactions of distress following the loss that are present in most people (Stroebe et al., 2001XX). The majority of the bereaved cope effectively with their grief symptoms; however, for about 40% of the bereaved, the physical impact of loss, such as sleep disruption, can be substantial for the 1st year of bereavement (Hall & Irwin, 2001). More intense and complicated reactions to grief occur when the death is violent or unexpected (Parkes, 1975) and when the bereaved and the deceased shared a close or intimate relationship, as in the loss of a family member or close friend (Van Doorn, Kasl, Beery, Jacobs, & Prigerson, 1998). Thus, bereavement-related complications can be viewed on a continuum of severity, from relatively mild and transient symptomatology to profoundly disruptive and persistent problems in adjustment that qualify as complicated grief, a syndrome for which diagnostic criteria are being empirically validated (Neimeyer, Prigerson, & Davies, 2002; Prigerson & Jacobs, 2001).

Several studies suggest a link between complicated grief symptomatology and sleep disruption in bereaved adults. Prigerson, Frank, et al. (1995) found that complicated grief scores were associated with enduring impairments in global functioning, mood, sleep, and self-esteem in 56 adults. Another study also found that complicated grief symptoms were associated with subjective sleep impairment in spouses who had lost their partner in the last 12 months (McDermott et al., 1997). These findings converge with those of Martin (1988), who found a direct relation between grief intensity and difficulty in falling asleep, staying asleep, and early waking for gay men who lost close friends and lovers to AIDS (Martin, 1988).

A study by Hall et al. (1997) indicated that intrusive thoughts of the deceased interfered with sleep in individuals with bereavement-related depression and that an increase in the frequency of such thoughts and associated attempts to suppress them led to an increase in physiological arousal, which in turn resulted in longer sleep latency. Likewise, Reynolds et al. (1993) found that depressed bereaved elders displayed shorter rapid eye movement, greater sleep latency, and greater disruption in sleep than bereaved elders without depression.

In this study, we expanded on previous research by concentrating on sleep and bereavement-related problems in a large cohort of college students, insofar as this group is relatively neglected in both the insomnia and grief literatures and each set of symptoms can exacerbate the other (Hall & Irwin, 2001). Moreover, by adopting a more rigorous assessment of grief symptomatology than has been used in most of the earlier studies (Neimeyer & Hogan, 2001), we were permitted a more confident evaluation of the relation of such symptoms to a variety of sleep-related behaviors. We hypothesized that the frequency of insomnia would be greater in a sample of bereaved college students than in a comparable sample of nonbereaved
college students. Because research suggests that more intense grief reactions occur when the death is violent or unexpected, we predicted that both complicated grief symptoms and insomnia would occur with higher frequency in participants who experienced sudden and violent loss than in cases of anticipated, natural death. Likewise, because the presence of a supportive, close, and security-increasing relationship to the deceased predicts poor bereavement outcome (Van Doorn et al., 1998), we hypothesized that complicated grief symptoms and insomnia would occur with higher frequency for individuals bereaved of an intimate family member or close friend as opposed to a casual acquaintance. We predicted that bereaved persons with insomnia would be higher in symptoms of complicated grief compared to bereaved persons without insomnia. Finally, we hypothesized that bereavement-specific sleep symptoms, such as intrusive thoughts and dreams of the deceased, would be significantly associated with complicated grief and that insomnia would make a unique contribution to the statistical prediction of grief symptoms beyond the variance accounted for by characteristics of the mourner, the deceased, their relationship, and the manner of death.

**METHOD**

**Participants**

The sample consisted of 508 bereaved participants and 307 nonbereaved participants from undergraduate psychology courses at the University of Memphis. Participants in this sample were classified as bereaved if they indicated on an initial survey that they had lost a loved one (a close friend or family member) through death in the past 2 years, in keeping with evidence that significant grief phenomena can be observed up to 24 months or longer following loss (Prigerson & Jacobs, 2001). The bereaved sample consisted of 388 women (76%) and 120 men (24%) whose mean age was 20.57 years ($SD = 4.14$), with a range of 17 to 56 years old. The ethnic distribution of the bereaved sample was 58% White, 37% African American, 2% Asian American, 2% Hispanic, and 1% other, in keeping with the representation of these groups in this midsouthern university. Respondents reported diverse relationships with the decedent, including grandparents (36%), friends (28%), aunts or uncles (15%), other extended family (13%), parents (5%), siblings (2%), and children (<1%). Causes of death were similarly diverse, including natural, anticipated deaths, as from cancer and other progressive diseases (44%); natural, sudden deaths, as from heart failure (21%); accidental deaths, as in vehicular accidents (18%); homicide (7%); suicide (5%); and other or undetermined causes (5%). Participants were classified as nonbereaved if they indicated that they had not lost a close friend or family member through death in the past 2 years. The nonbereaved sample consisted of 224 women (73%) and 83 men (27%).
Their mean age was 20.55 years ($SD = 4.12$), with a range of 17 to 49 years old. The ethnic distribution of this sample was 65% White, 28% African American, 6% other, 1% Asian American, and 0.3% Hispanic.

Procedure

Following IRB approval of the project, questionnaires were distributed in undergraduate psychology classes across five successive semesters. Students gave informed consent for their participation, which involved no formal compensation.

Instruments

Instruments were selected to gather reasonably comprehensive reports of both bereavement and sleep-related difficulties, within the constraints of a large-cohort survey study. A grief and loss questionnaire gathered information on the demographics of the participants and the deceased, the type and intimacy level of the relationship, their frequency of interaction, when the loss occurred, and the cause of death. If participants had multiple friends or family members die within the past 24 months, they were instructed to consider the loss that had had the greatest impact on them. Although all bereaved participants reported losing a close friend or family member, some individuals (9%) subsequently described the deceased as an acquaintance or someone they barely knew in response to follow-up questions about the intimacy of the relationship. A review of individual responses suggested that this typically occurred when the loss was that of a family member who was not well known by the respondent (e.g., the miscarriage of a child, the death of a distant uncle). Thus, the formal nature of the relationship and its intimacy were assessed separately in the analyses that follow. Copies of all questionnaires are available from us.

The Inventory of Complicated Grief (ICG; Prigerson & Jacobs, 2001) was administered to assess the severity of grief complications for bereaved participants as experienced in the previous month. The ICG scale used in this study is the Inventory of Traumatic Grief cited in Prigerson and Jacobs with the exception of Item 13, as a result of further refinement of the instrument. This 34-item scale is composed of brief declarative statements (e.g., “I feel that I have trouble accepting the death”), to which the participant responds on a 5-point Likert scale ranging from 1 (**almost never**) to 5 (**always**). The ICG has been demonstrated to be a reliable and valid instrument for the assessment of complicated grief symptomatology, as evaluated by both its originators (Prigerson & Jacobs, 2001) and independent reviewers (Neimeyer & Hogan, 2001). Items include symptoms such as preoccupation with thoughts of the deceased, searching and yearning for the deceased, disbelief about the death, nonacceptance, anger, loneliness, bitterness about the death, and feelings of being overwhelmed, numb, anxious, and out of control (Prigerson, Frank, et al., 1995; Prigerson et al., 1999). Higher scores represent greater impair-
ment in social, mental, and physical health functioning (Prigerson, Maciejewski, et al., 1995). For this study, the minimum score possible was 29, and the maximum was 145, which thereby provided a continuous measure of intensity of grief-related symptomatology rather than a classificatory diagnosis of complicated grief disorder.

The 14-item sleep questionnaire used in this study was consistent with the criteria for insomnia in the Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev. [DSM–IV–TR]; American Psychiatric Association, 2000). Items inquire whether or not the participant experienced difficulty falling asleep, staying asleep, awakening early in the morning without being able to fall back to sleep, falling asleep very early in the evening, being unable to wake up until late in the morning, or having bad dreams. Participants were also asked to provide an answer (not in the past month, less than once a week, 1 or 2 times a week, 3 or 4 times a week, or 5 or more times a week) that best described how frequently they experienced the following situations in the past month: napping during the day, taking any kind of medication or alcohol at bedtime to help with sleep, and falling asleep during quiet activities like reading, watching television, or being a passenger in a car. Two questions specifically focused on losing sleep due to bereavement-related thoughts or dreams. Participants were asked how often they dreamed about a loved one who had died in the previous 2 years and how often they had trouble falling asleep because they were thinking about that person. Other questions asked about the duration of sleep difficulties, the amount of time it took respondents to fall asleep, how many times they awakened during the night, how much time they spent laying awake in bed at night, and how much actual sleep they got in a night.

For this study, insomnia was defined as (a) a personal perception of sleep problems, such as difficulty falling asleep, difficulty staying asleep, or waking early; (b) greater than 30 min latency falling asleep or a loss of greater than 30 min of sleep during the night; (c) a daytime impairment in emotional, social, and occupational roles represented by one of the following: worrying about sleep, canceling social activities, being irritable and depressed, thinking less clearly, and feeling very fatigued; and (d) a duration of disturbance of at least 1 month, in keeping with the criteria for insomnia listed in the DSM–IV–TR (American Psychiatric Association, 2000). Because these items were phrased in terms of the respondent’s typical sleep behaviors, frequencies of sleep-related problems were not included in the diagnostic criteria but were instead treated as separate variables in the analyses that follow.

RESULTS

Frequency of Insomnia

As predicted, the frequency of insomnia was greater among bereaved students, who accounted for fully 49% of the students surveyed (28% in the 1st year and
21% in the 2nd year of bereavement). Overall, the rate of insomnia in the nonbereaved group (17%) closely approximated the base rate found in previous studies of college student samples, and rates were significantly higher in the bereaved student group (22%), $\chi^2(1, N = 815) = 4.89, p < .05$. Bereaved and nonbereaved insomniacs differed particularly in their reports of middle insomnia (67 vs. 50%, respectively), $\chi^2(1, N = 164) = 4.05, p < .05$, but were similar in their reported frequencies of early (81 vs. 82%) and late insomnia (45 vs. 46%). Of the bereaved students, 59% reported onset of insomnia subsequent to the death of their friend or family member.

**Type of Loss**

As hypothesized, traumatically bereaved students (those losing significant others through accidents, suicide, or homicide) met criteria for insomnia (28%) significantly more frequently than those who were not traumatically bereaved (21%), $\chi^2(1, N = 500) = 5.0, p < .05$. In contrast, students who were bereaved of a loved one or close friend were no more likely to meet criteria for insomnia (22%) than were those who lost an acquaintance (22%), $\chi^2(1, N = 507) = 0, p > .05$.

Moreover, as predicted, traumatically bereaved students did report significantly greater complications on the ICG ($M = 55.71, SD = 21.81$) than did other bereaved students ($M = 44.80, SD = 16.89$), $t(486) = -4.53, p < .001$. Likewise, there was a significant difference in the ICG scores of bereaved participants losing family members and close friends ($M = 46.85, SD = 18.25$) versus those losing acquaintances ($M = 38.07, SD = 13.28$), $t(491) = -3.08, p < .01$.

**Insomnia and Complicated Grief**

As hypothesized, within the bereaved group, those who met criteria for insomnia reported significantly higher complicated grief symptom scores ($M = 50.58, SD = 20.48$) than did those who did not meet criteria for insomnia ($M = 44.84, SD = 17.11$), $t(492) = -2.93, p < .01$, two-tailed. Because the ICG contains the following item, “Since the death, my sleep has been …”, the data were reanalyzed excluding this potentially confounding item. The resulting correlations, however, were virtually identical to those obtained with the full ICG, so the latter was used in all subsequent analyses.

When insomnia across months since loss in 6 month intervals (<6, 7–12, 13–18, and 19–24 months) was evaluated, a significantly greater rate of insomnia was found in months 7 to 12 (27%) than in months 13 to 18 (17%), $\chi^2(1, N = 228) = 5.18, p < .05$. There was no significant difference among other months compared, nor was there a difference for ICG scores across intervals of 6 months since loss, $F(23, 468) = 0.63, p > .05$. 
Specific Sleep Symptoms

Pearson correlations were run on the frequencies of the following sleep variables to establish their relation to both insomnia and ICG scores: use of alcohol and medication to aid sleep, dreaming of the deceased, intrusive thoughts or ruminations of the deceased preventing falling asleep, falling asleep during quiet activities, number of nighttime awakenings, and daytime napping. Table 1 presents correlations between these specific sleep variables, ICG, and insomnia classification.

As predicted, the bereavement-specific sleep symptoms (dreaming and ruminations of the deceased) were positively and significantly correlated with both insomnia and complicated grief symptoms (ICG). However, when the relative strengths of correlations were compared with Fisher’s Z test, we found that the bereavement-specific sleep variables (dreaming of the deceased and ruminating about the deceased) were significantly more correlated with the ICG ($z = 6.31, p < .05; z = 9.33, p < .05$) than they were with insomnia classification per se. In general, higher correlations were obtained within the domains of sleep disturbance and grief symptomatology than between them, as might have been expected.

Prediction of Complicated Grief

Because it was of interest to examine the joint effect of sleep variables in the prediction of complicated grief symptoms, we used two stepwise multiple-regression models, without forcing a given order of variable entry (see Table 2). The following sleep symptoms were found to predict ICG scores: (a) ruminating about the de-

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Correlations (Pearson’s $r$) Between Sleep Variables, Full ICG, and Insomnia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Insomnia</td>
</tr>
<tr>
<td>Full ICG</td>
<td>.13**</td>
</tr>
<tr>
<td>Sleep in quiet activity Nap</td>
<td>.05</td>
</tr>
<tr>
<td>Dream of deceased</td>
<td>— .04</td>
</tr>
<tr>
<td>Ruminate about deceased</td>
<td>.15**</td>
</tr>
<tr>
<td>Sleep medication</td>
<td>.12**</td>
</tr>
<tr>
<td>Number of awakenings</td>
<td>.23**</td>
</tr>
</tbody>
</table>

Note. ICG = Inventory of Complicated Grief (Prigerson & Jacobs, 2001).

*p < .05 (two-tailed). **p < .01 (two-tailed).
ceased, (b) dreaming of the deceased, and (c) number of awakenings during the night. The emergence of ruminating and dreaming about the deceased as the two most important predictors of complicated grief symptoms underscores the importance of bereavement-specific sleep problems in assessing grief complications.

In a parallel fashion, the ability of insomnia and variables specific to the loss to predict complicated grief symptoms was analyzed with stepwise regression, and the following variables were found to be significant predictors: (a) greater frequency of contact with the deceased in the 3 months preceding the death, (b) whether the death was violent as opposed to nonviolent, (c) closer relationship of participant to the deceased (e.g., parent, sibling, or spouse as opposed to acquaintance), (d) younger age of deceased, (e) fewer months since the loss, (f) greater level of closeness with deceased, (g) insomnia, and (h) sex of the bereaved, with women reporting more complications. As hypothesized, Table 3 indicates that insomnia made a unique contribution to the prediction of complicated grief.

### TABLE 2
Stepwise Regression Model for Complicated Grief Symptoms as a Function of Specific Sleep Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>b</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ruminating about deceased</td>
<td>9.53</td>
<td>1.14</td>
<td>.41*</td>
<td>.35</td>
</tr>
<tr>
<td>Dreaming of deceased</td>
<td>4.85</td>
<td>0.88</td>
<td>.27*</td>
<td>.05</td>
</tr>
<tr>
<td>Number of awakenings</td>
<td>1.33</td>
<td>0.48</td>
<td>.12*</td>
<td>.01</td>
</tr>
</tbody>
</table>

*Note. Cumulative R² = .41.*

### TABLE 3
Stepwise Regression Model for Complicated Grief Symptoms as a Function of Insomnia and Variables Related to Loss

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>b</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of contact</td>
<td>-2.93</td>
<td>0.45</td>
<td>-28**</td>
<td>.12</td>
</tr>
<tr>
<td>Violent death</td>
<td>6.41</td>
<td>2.33</td>
<td>.12**</td>
<td>.03</td>
</tr>
<tr>
<td>Relationship to deceased</td>
<td>-1.15</td>
<td>0.29</td>
<td>-.18**</td>
<td>.02</td>
</tr>
<tr>
<td>Age of deceased</td>
<td>-0.18</td>
<td>0.03</td>
<td>-.26**</td>
<td>.03</td>
</tr>
<tr>
<td>Months since death</td>
<td>-0.32</td>
<td>0.10</td>
<td>-.14**</td>
<td>.02</td>
</tr>
<tr>
<td>Intimacy level</td>
<td>-3.25</td>
<td>1.04</td>
<td>-.14**</td>
<td>.02</td>
</tr>
<tr>
<td>Insomnia</td>
<td>5.49</td>
<td>1.78</td>
<td>.12**</td>
<td>.02</td>
</tr>
<tr>
<td>Gender of bereaved</td>
<td>3.83</td>
<td>1.72</td>
<td>.09*</td>
<td>.01</td>
</tr>
</tbody>
</table>

*Note. Cumulative R² = .26.*

*p < .05. **p < .01.
As anticipated, bereavement was found to be both common in this large college student cohort (49% of students surveyed were within 2 years of loss) and associated with frequent awakening and a number of other significant sleep-related symptoms. Bereaved students more commonly met criteria for insomnia diagnosis than their nonbereaved peers, a diagnosis to which those who were bereaved by the violent deaths of loved ones were particularly prone. Likewise, these same traumatically bereaved young adults were at greater risk for complicated grief symptomatology relative to those whose loved ones died from natural causes. Furthermore, as predicted, closeness to the deceased (as assessed by the level of reported intimacy in the relationship) was also associated with more complicated grief symptomatology, whereas whether or not the deceased was a family member was not. This finding was consistent with attachment theory models of bereavement, which posit that complicated grief symptoms can be triggered by the loss of security-enhancing relationships (Bowlby, 1980; Parkes, 1986; Stroebe et al., 2001), perhaps particularly for mourners who have a history of insecure attachment and early loss (Neimeyer, Davies & Prigerson, 2002; Silverman, Johnson, & Prigerson, 2001). This possibility suggests that traumatic and distressing losses can prove especially disruptive to a subset of vulnerable students and, hence, should be given more attention by college counseling services.

As hypothesized, insomniacs in the bereaved group reported more complicated grief symptoms than the noninsomniacs, which may indicate that insomnia and complicated grief can become mutually reinforcing, as suggested by Hall and Irwin (2001). Moreover, several specific sleep variables were significantly associated with both complicated grief symptomatology and insomnia, including indicators of impaired daytime functioning and reliance on alcohol and medication to induce sleep. This suggests the seriousness of the impact of bereavement-related insomnia in vulnerable students, who could be at risk for both worsened academic performance and possible substance abuse. Of special note is that two bereavement-specific sleep symptoms, intrusive, ruminative preoccupation with the deceased at bedtime and disturbing dreams of the deceased, were significantly associated with both grief complications and insomnia diagnosis. Neither variable has been extensively studied in the sleep or bereavement literatures, however, and these findings suggest that they deserve greater empirical and clinical attention as hybrid markers of difficulties in both domains.

As predicted, insomnia proved to be a significant statistical predictor of complicated grief along with frequency of contact with deceased, nature of the death (violent or nonviolent), younger age of the deceased, level of closeness with the deceased, recency of the loss, relationship to the deceased, and sex of the bereaved (with women showing greater grief). This finding was consistent with other studies that have found complicated grief scores to be significantly associ-
ated with sleep disturbances after a loss (McDermott et al., 1997; Prigerson, Frank, et al., 1995).

Despite its strengths as the first-large scale study of college student bereavement to include psychometrically sound assessment of complicated grief and the first to relate such symptoms to specific sleep difficulties, some limitations of this study need to be acknowledged. First, the data gathered were strictly self-reported by the participants, raising questions about their accuracy. No sleep lab study was conducted to monitor the actual topography of sleep disruptions, and no in-depth clinical evaluation of the bereavement adaptation of such a large sample was possible. Second, although the sample included a substantial cohort of college men and women and African Americans and Whites, the participants did not reflect other ethnic groups of the general college student population. Thus, appropriate cautions should be observed in generalizing to groups differing from this one in age, ethnicity, and type of loss. Perhaps most important, the correlational nature of this design precludes causal inferences about the relation between complicated grief symptomatology and sleep disruptions. In particular, although the tacit presumption of clinicians is that bereavement-related stress adversely affects sleep, we cannot rule out the possibility that a predisposition to insomnia could exacerbate response to loss, or that both insomnia and complications following loss might be a consequence of an unmeasured third variable, such as trait anxiety, preexisting depression, or characterological factors such as pessimism or poor coping skills.

Further research should continue to investigate the involvement of the two bereavement-specific sleep variables as they relate to both complicated grief and to the diagnosis of insomnia. Furthermore, longitudinal studies are needed to determine if complicated grief symptoms would attenuate if insomnia were treated in the early months of loss. In particular, clinical trials of both pharmacological and behavioral sleep interventions with bereaved persons could be valuable in assessing whether such treatment could mitigate the intensity or duration of grief symptoms following a loss or prevent a course of normal grief from becoming protracted and complicated. Such clinical attention to sleep disruption is also more likely to be welcomed by the bereaved than would be efforts to reduce other core symptoms of grieving, such as reviewing memories of life with the deceased, experiencing poignant sadness, and other ways in which many bereaved persons struggle with the meaning of their loss (Neimeyer, 2001). In contrast to such psychological dimensions of grief, insomnia might be experienced as more ego-dystonic or unwanted, enhancing the acceptability of interventions that target its reduction.

In conclusion, the finding that both bereavement and insomnia are prevalent in a large sample of university students suggests that they deserve greater attention on the part of mental health professionals on college campuses, who could enhance education, assessment, and intervention efforts for this potentially at-risk segment of the student population. In summary, the suggestive links observed between complicated grief symptomatology on the one hand and insomnia and associated
sleep problems on the other argue for further study of the relation of these intertwined disorders, so that relevant approaches to treatment can be devised for those most vulnerable to them.

REFERENCES


