Adjustment to Violent and Natural Deaths in Later and Earlier Life for Black and White Widows

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Objectives. This study explored the role of mode and unexpectedness of death, age, race, and marital status on psychological symptoms for widows approximately 6 months after their husbands’ deaths.

Methods. Midwestern samples were drawn from death/divorce records for 276 Black and White women aged 19–74 whose husbands had died from homicide, suicide, or accidental death; 276 matched natural death widows; 188 separated/divorced women.

Results. Mode of death was not related to psychological symptoms. Contrary to expectation, widows of the men who had died from long-term natural illnesses exhibited more distress than widows of men who had died from violent and sudden, natural deaths combined. Indicative of their heightened overall symptoms, widows were more distressed than divorced women. Middle-aged and younger widows were more distressed than older ones. White widows reported more symptoms than Blacks in violent but not natural deaths. Black widows whose spouses had died from suicide had higher psychological distress on some indicators, supporting the greater stigma of suicide among Black persons.

Discussion. Results of smaller studies on the minimal role of mode of death in bereavement are supported, but more research on age, race, and “off-time” deaths in short- and long-term adjustment is needed.

Bereavement after a death from homicide, suicide, or an accident is thought to be more difficult to recover from than bereavement after a natural death, but how and why, and, indeed, whether this is the case has not been shown. In fact, few studies have examined bereavement across all modes of deaths with large enough samples to draw any clear conclusions. Because of their infrequency, violent deaths are generally not included in most bereavement research. The age and race of the victim and the unanticipated nature of the death may cloud the matter further when samples are not large or diverse enough to examine all these issues. Thus, these other factors could complicate adjustment instead of or in addition to the mode of death. This research examined these issues in data drawn from interviews with women whose husbands had died from homicide, suicide, or accidental death, matched to a comparison sample of women whose husbands had died from natural causes.

Violent Deaths in the United States

With deaths from natural illness at younger ages less frequent today, violent deaths are among the leading causes of death for men and women under the age of 65 in the United States; men are substantially more likely to die of such causes than women (National Center for Health Statistics, 1993). Until the advent of the human immunodeficiency virus (HIV) infections, homicide, suicide, and accidents were the top three causes of death behind heart disease for men 45 and under (Holinger, 1987). In 1991, the middle year for the 5-year period reported upon in this study, violent deaths were still, as they are today, the leading causes of death for those ages 15–24. Death rates also varied by race, with younger White men substantially more likely to die from suicide and younger Black men from homicide. With the exception of those 15 to 24, Blacks were more likely to die from accidents than were Whites, although Rogers (1992), using National Health Survey and national mortality data, found that, with sociodemographic controls, this difference in mortality by accidents decreased.

In the 1991 data, deaths from natural causes—particularly heart disease and cancer—increased in the middle years. Homicide rates were still higher for Black than for White men and were rated third as a cause of death for Black men aged 65 and over; suicide was still in the top 10 causes for Whites up to the age of 64. Among Blacks, suicide dropped out of the top 10 causes by age 45. Accidents remained high, with their lowest rank being 7th for Blacks and Whites aged 65 and older.

Violent deaths constituted 7.1% of the 935,742 deaths for White men aged 15 and over and 13.1% of the 138,256 deaths for Black men in 1991 (National Center for Health Statistics, 1993). These data indicate that without an examination of adjustment to violent deaths, our knowledge about bereavement is incomplete and based almost entirely on data about natural deaths, often among older persons. To continue this discussion about the role of violent deaths in bereavement, research on the mode of death, unanticipated deaths, age, and race is reviewed in the following sections.

Mode of Death

Mode of death is commonly thought to influence adjustment for the families of the victims of violent deaths. However, this conclusion is generally based on a study of the type of death felt by the researcher to be the most distress-
ing or more distressing, than the one or more comparison groups that might be used. (On homicide, see Amick-McMullan, Kilpatrick, Veronen, & Smith, 1989; Burgess, 1975; Pasternack, 1995; Rynearson, 1984; Rynearson & McCreery, 1993; Sprang, McNeil, & Wright, 1992-93; on suicide, see Farberow, Gallagher, Gilewski, & Thompson, 1987; on accidents, Shanfield & Swain, 1984; on suicides and accidents, Seguin, Lesage, & Kiely, 1995; on suicides, accidents, and natural deaths, Barrett & Scott, 1990).

Data on the impact of mode of death on psychological adjustment are generally mixed. For example, after reviewing a series of studies in which participants were asked to reply to vignettes describing a person who died from suicide versus other causes, Calhoun and Allen (1991) found that others perceived suicides to be the most distressing type of death. Perceptions, of course, are not the same as having experienced these difficult events, as Osterweis, Solomon, and Green (1984) and van der Wal (1989–90) suggest.

Still others have found accidental death to be the most distressing mode of death. In a death records-based sample, Reed and Greenwald (1991) reported that the family members of accidental death victims had higher levels of emotional distress than those of suicide victims. In a Leiden, The Netherlands, study of family members of suicide, traffic fatality, and long-term illness victims, Cleiren (1993) found similar results. At 4 months after the death, family members of traffic accident victims had more difficulty adjusting, followed by the families of the suicide victims, and finally, those bereaved by long-term illness. After 14 months, however, mode of death was not an important dimension in adjustment with Cleiren concluding, “Bereavement after different modes of death is marked more by similarities than by differences” (p. 240).

Few studies compare adjustment to all modes of violent and natural deaths, but when they do, few bereavement differences occur (Range & Niss, 1990). Studies comparing at least one mode of violent and natural deaths have also found little impact on adjustment (Farberow, Gallagher-Thompson, Gilewski, & Thompson, 1992; Shepherd & Barraclough, 1974).

Based on the research findings to date, mode of death appears to have a minimal effect on adjustment. For this study, it is hypothesized that there will be few differences in psychological symptoms among the spouses of victims of violent and natural deaths 5 to 6 months after the husbands’ deaths.

However, it is not that death is an event of little distress. In previous research, widowed and divorced persons reported higher levels of mortality and physical and psychological distress than married persons (Rogers, Hummer, & Nam, 2000; Waite, 1995). In some cases, some of the widowed had higher scores than the divorced (Williams, Takeuchi, & Adair, 1992), whereas in other surveys, the divorced had higher distress than the widowed (Cotten, 1999; Gove & Shin, 1989). To test the hypothesis that widowhood is a distressing event, it was anticipated that the widowed women in this study would have higher psychological distress levels than divorced women from the same community.

**Unanticipated Natural Deaths**

The unexpectedness, trauma, and stigma associated with sudden deaths—not the mode of death—are thought to make adjustment more difficult (Sanders, 1993). But, even some violent deaths—such as suicides or those in which the victims were involved in risky lifestyles—may be somewhat anticipated, whereas some natural deaths (e.g., a stroke) may be unanticipated.

The term “anticipatory grief” is used to refer to preparatory grief work prior to the loss of a loved one (Sweeting & Gihooly, 1990). There is continuing controversy about how to measure length of illness and if widowed persons adjust differently to natural deaths from short-term versus long-term illnesses (Glick, Weiss, & Parkes, 1974; Hill, Thompson, & Gallagher, 1988; Levy, Martinkowski, & Derby, 1994).

Given the mixed findings, it may be that suddenness and unexpectedness of the death, not the mode, are the more important elements (Barrett & Scott, 1990; Range & Niss, 1990). As a test of this hypothesis, it is anticipated that the widows of spouses who died of violent causes and from natural deaths with little forewarning will report more symptoms of distress than widows whose spouses died from longer term causes.

**Age and Off-Time Deaths**

**Age and adjustment.**—Younger widows generally have greater difficulty adjusting to the deaths of their spouses than do older widows (Ball, 1976–77; Carey, 1979–80; Lowenstein, Landau, & Rosen, 1993–94; Reed, 1993; Wortman, Silver, & Kessler, 1993). However, age generalizations have often been made based on truncated samples. For example, Parkes and Weiss (1983) studied widows under the age of 45, and Farberow and colleagues (1987) looked at those aged 55 and over. These studies held age constant and examined differences in the mode of death. Here, we look at both younger and older individuals.

**Off-time deaths.**—If adjustment difficulties in violent or unexpected natural deaths are not the result of the mode of death, they may be related to the “off-timeliness” of the event (Neugarten, 1979). Today, in advanced societies, we do not think of death as likely in the younger years, and therefore such deaths are unexpected and may be particularly upsetting (Hagested, 1988; Keith et al., 1994).

In support of Neugarten’s off-time idea, Cleiren (1993) found that the age of the deceased spouse explained more variance in adaptation than did the respondent’s own age. He suggested that it was the untimeliness of the death that the spouse’s age reflected. Based on these findings, it is hypothesized that younger women in the sample will have greater adjustment difficulties than older widows, regardless of mode of death.

**Race and Adjustment**

Because of the small number of deaths examined or the racial composition of the study communities, little research has compared adjustment to death by race, or race and mode of death. Although distress among members of an ethnic/racial group may be greater than distress between groups (Eisenbruch, 1984), several studies have reported less distress for Black than for White widowed persons (Gove & Shin, 1989; Wortman et al., 1993). Balkwell (1985) found
no relationship between morale and age for Black widowed persons but found that older White and Mexican American widowed subjects had higher morale. With death rates higher for Blacks than Whites, she suggested that the greater number of deaths among younger Blacks produced a natural support system for the widowed. With supportive systems such as kin and friendship groups (Neighbors, 1997) and strong religious ties (Levin, Chatters, & Taylor, 1995), Fine, McKenry, and Chung (1992) and Williams and colleagues (1992) have suggested that marriage may not be as central among Blacks as for Whites, particularly among lower class women, as Lopata (1996) has maintained. Staples and Johnson (1993) have hypothesized that structural economic and cultural conditions contribute to these differences. As a result, the death of a spouse may not be as distressing an event to some Black persons as it is for some Whites. For others, spouses of both races for whom supportive ties develop through the marriage, bereavement distress may be heightened (Lopata, 1996).

Reviewing ethnic and cultural bereavement practices, Eisenbruch (1984) suggested that with more natural deaths occurring at earlier ages and more homicides and accidents, Black persons may think of death as a normative life transition, not as an unexpected event, as do many Whites. Therefore, historical and current patterns may make death a more accepted part of the life course for Blacks than for Whites (Kalish & Reynolds, 1976).

Racial differences in mode of death lead to speculation that violent deaths might vary in their impact on the surviving spouses depending on the frequency of death in a racial group. With deviance high in the Black community among low socioeconomic status members, some persons faced with economic, social, and political constraints seek out alternative routes for fulfillment (Early, 1992; Merton, 1957). When external constraints are high, this leads to frustration and aggression, but, under such circumstances, people act outward, not at the self. Thus, among Blacks, homicides would be more frequent. Because of blocked means to achievement, risk taking, and low-paying, dangerous work for many, the risk of accidents would also be higher.

In qualitative interviews, Early (1992) found that the Black culture, with its historically based awareness of the need to handle problems by oneself, reinforced by religion, made suicide a particularly stigmatized and unacceptable solution (see also Gibbs, 1988). This suggests that when a Black person commits suicide, adjustment for his or her family and friends would be highly distressing.

With a premium placed on aggressive, acting-out behavior in Black, lower-class culture (Gibbs, 1988; Oliver, 1994), even relatively rare events, such as homicides and accidents, may be easier to adjust to if at least part of the culture of a community has experienced them. This suggests the possibility of interaction effects between mode and race such that homicide will be less distressing for Blacks and more distressing for Whites, whereas suicide will be more distressing for Blacks and less distressing for Whites. With accidents overrepresented among Blacks and a premium placed on aggressive (self-destructive) behavior, accidents may be less distressing among Blacks than Whites.

Hypotheses

Based on the review above, the hypotheses that were examined in this study are as follows:

1. There will be no difference in the psychological symptom levels of the spouses of homicide, suicide, accidental, or natural death victims.
2. Widows of spouses who died by violent means and widows whose spouses died from natural deaths with little warning will report more symptoms of psychological distress than widows whose spouses died from natural, longer term illnesses.
3. Widowed women will report higher psychological symptom levels than will divorced women.
4. Younger widows will report higher psychological symptom levels than will older widows.
5. Black widows will report fewer psychological symptoms than will White widows.
6. Adjustment difficulties will vary by mode of death and race, with White widows reporting more psychological symptoms than Black widows for deaths from homicides and accidents and Blacks reporting more symptoms for suicides than will Whites.

Methods

Sampling

The sample of the homicide, suicide, accidental, and natural death victims in this research was collected from the coroner’s office and public death records in two midwestern, metropolitan counties from the spring of 1988 to the spring of 1993 for a longitudinal study of adjustment to widowhood. A 5-year sampling frame ensured large enough numbers of the relatively rarely occurring violent deaths. Women were selected for interview because more men die from violent causes, and, generally, at younger ages than women, thereby assuring that a larger sample could be collected in a relatively timely manner. In addition, some of the control group data for natural death widows and all data for the divorced women had already been collected.

For the violent death sample, every married man age 74 or younger who died from homicide, suicide, or accidental means, as defined by the coroner’s office, was drawn for study. A letter was written to his widow 3 1/2 months after the death telling her about this study of “how women cope with the deaths of their husbands from different causes.” Pretests indicated that subjects whose husbands had died from violent causes were reluctant to talk at length with an interviewer any earlier after the death. Interviewers were matched by race and, where possible, age to the subjects. (For more on data collection, see Kitson et al., 1996.)

In 1988, when the principal investigator moved from a university in a large metropolitan county to another in a smaller neighboring metropolitan county, this second county was added to the sample. To ensure no differences in methodology, letters to widows in the original study county continued to come from the first university, whereas those to widows in the second county came from the investigator’s new university.

A sample of widows of natural death victims was also
collected to match each of the violent death victims. Some of the natural death widows came from another study (Kitson & Roach, 1989) discussed below. Subjects were always matched on race, but compromises were made on age or census tract of residence, but not on both for the same case. Age was usually matched within 5 years; in 17% of the cases, however, the differences were between 5 and 10 years, and in 4% of the cases, 10 or more years. Median income of the census tract of residence was generally matched within $5,000, but in 10% of the cases, the range was extended to $6,000 to $10,000; for 3% of the cases, it was $10,000 to $20,000, and $20,000 or more for 0.3%.

It took an average of 1.6 interviews per case to match 143 newly collected widows; 133 widows were matched to the violent death victims from an earlier study of widowhood and divorce (Kitson & Roach, 1989) for a total of 276 matches. The completion rate for the 353 widowed women for whom contacts were attempted in that earlier study was 56.9%, with 201 women agreeing to be interviewed and 24.6% refusing, 10.8% unlocatable, 7.4% having moved out of the area, and 1 (.002%) deceased.

The majority of the violent and natural death cases, 442, or 87.2% (n = 891) were collected in the first study county with 65, or 12.8%, (n = 118) collected in the second study county. The completion rate was significantly higher in the second county (55.1%) than in the first county (49.6%; \(\chi^2 = 12.07, 3\ df, p < .01\)). A larger proportion of the subjects (28.0%) in the second study county refused, compared to 19.1% of those in the first study county. The interviewers were unable to locate more of the residents in the first county—more of them had moved out of the standard metropolitan statistical area; the figures for unlocatable subjects and those who had moved in the first and second counties were, respectively, unlocatable 25.5% and 14.4%; moved, 5.8% and 2.5%.

As a reflection of differences in the racial composition of the two counties, significantly more of the potential subjects in the first county were Black, 59.0% (n = 891) compared to 23.7% (n = 118) in the second county (\(\chi^2 = 52.5, 1\ df, p < .01\)). In the two counties, there were no significant differences in response rate by median income of census tract of residence or in the age of the subjects by mode of death. The samples from the two counties were comparable and thus the responses were combined.

The overall completion rate for this study (50.2%, n = 1,009) compares favorably with that of other records-based studies of violent death with completion rates varying from 35% for Farberow and colleagues' (1987) study of the spouses of suicide victims to 61% for Lehman, Wortman, and Williams' (1987) study of the spouses of accident victims. These rates are also comparable to those of death records-based studies of natural death bereavement such as the 30% in Gallagher, Breckenridge, Thompson, and Peterson's (1983) Los Angeles study and 60% for the Harvard Bereavement Study (Parkes & Weiss, 1983).

As a comparison group for the widowed women, a sample of 188 separated and divorced women collected from divorce court records in the same metropolitan area as the original widowed sample and matched to them on race, age, and median income of census tract of residence was also used (Kitson & Roach, 1989). The completion rate for this study was 44.9%, with 188 agreeing to be interviewed, 32.0% refusing, 13.6% unlocatable, 9.3% having moved out of the area, and .002% deceased (n = 419).

**Measures**

**Dependent variables.**—Psychological symptoms were assessed by the Zung (1965) Self-Rating Depression Scale (SDS) and a modified version of the Derogatis (1977) Brief Symptom Inventory (BSI). These scales were selected because of their continuing use in the field, an interest in psychological distress beyond depression, and their relative shortness in a survey exploring other aspects of adjustment to violent death. The SDS consisted of 20 items scaled from 1 (none) to 4 (most of the time) in response to the interviewer question, “Please tell me whether you feel this way . . . .” Sample items included, “I feel downhearted, blue, and sad,” and “I feel hopeful about the future.” Half of the items were positively worded and were reverse coded so that high scores indicated more symptoms of depression. The alpha reliability of the scale was 0.73 for the whole sample, which is the most stable, heterogeneous estimate of reliability; 0.74 for the spouses of the homicide victims; 0.66 for the suicide; 0.75 for the accident, and 0.72 for the natural death widows.

The 53-item BSI was based on subjects’ self-administered replies to questions beginning, “In the past two weeks, how much were you bothered by . . . .” Scores for the items ranged from 1 (not at all) to 4 (extremely), instead of the usual 5-point scale. The findings indicate the presence or absence of symptoms of psychopathology, but the scoring ranges are not comparable to clinical studies. Sample items included, “The idea that someone else can control your thoughts” and “Suddenly scared for no reason.” In addition to a global score, for all the items, there were nine subscale scores: somatization, obsessive–compulsive behaviors, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. The alpha reliability for the global, or total, scale score for the BSI was 0.97 for the whole sample and for the spouses of the homicide victims, 0.98 for the accident victims. For the subscales, reliability ranged from 0.65 on psychotism for the spouses of homicide victims to 0.92 for obsessive–compulsive behaviors for accident victims with a higher scale score indicating more psychological symptoms.

**Independent variables.**—Mode of death was defined as a five–category variable: homicide, suicide, accidental death, sudden natural death, and longer term natural death. Because almost all of the violent death victims died within a day of their injuries, sudden natural deaths were also defined as deaths within one day of illness. All other natural deaths were defined as illnesses of longer duration. Among the natural deaths, 167, or 61.1%, were due to sudden illness and 106, or 38.9%, longer term illness (n = 273). The number of short-term illness deaths differed little using a measure of illness of one day or less or of 2 weeks.

Age was coded as the widow’s actual age with a range of
19 to 74. With only 12 spouses of homicide victims over age 51, it was necessary to code age into three categories: 35 and under \( (n = 94, \text{ or } 34.1\% \text{ of the sample); 36 to 50, } (n = 87, 31.5\%); \text{ and 51 to 74 } (n = 95, 34.4\%). \) Race was coded 0 for Whites and 1 for Blacks. One person from another racial/ethnic group was dropped from these analyses.

**Control variables.**—To control for social class, the Index of Social Position (Hollingshead, 1957) was used. This combines educational and occupational status to produce a five social class scale with “I” being the highest class and “V” the lowest class. Scoring of the scale was reversed so that the lowest status (V) was scored 1. Because of the distribution of the cases for the widows, statuses I and II were combined into 4 in all analyses. Length of time, to the closest month, between the death and interview was also used as a control. The range of time between death and interview was 2 to 23 months. With few cases at the highest months, the top score was recoded to 15. A comparable measure was used for the separated and divorced women with a mean length of time between filing for the divorce/dissolution and interview of 5.4 months.

**Statistical Techniques**

With a relatively small number of violent deaths and interest in categorical variables for mode of death, age, and race, analyses of variance and covariance were used to test the hypotheses. Then, the Tukey post hoc test identified which, if any, of the pairs of means were significantly different from one another.

**RESULTS**

Table 1 displays the distribution of the independent and control variables by mode of death. The mean length of time between death and interview was 5.4 months with differences among the modes of death on when the interviews were conducted. As indicated by the Tukey post hoc test, women whose spouses died from long-term illnesses were willing to be interviewed sooner than those whose spouses died from accidents.

With 40% \( (n = 221) \) of the subjects reporting a modal Index of Social Position (ISP) of working class and another 13% lower class \( (n = 72) \), the mean social class position of the sample was working class with no significant differences among the subjects by social class. The spouses of the homicide victims were significantly younger than the spouses of the sudden natural death victims, as indicated by the Tukey post hoc test, but there were no significant differences among the other widows. As with national data on violent deaths, there were also significant differences by mode of death for race, with the spouses of the homicide victims significantly more likely to be Black, whereas the spouses of the suicide and long-term natural deaths spouses were more likely to be White.

**Mode of Death**

In Table 2, the unadjusted mean psychological symptom scores for the hypotheses do not include the control variables, whereas the adjusted scores (displayed in parentheses) include the mean level of psychological distress with controls introduced for the variables length of time between the death and interview and Hollingshead ISP. Overall, in some cases the control variables reduced the mean values of the distress measures, whereas in others they increased them. Generally, however, the introduction of controls did not reduce the relationships to insignificance. Consequently, months between the death and interview and social class did not have much effect on the relationships. Only the adjusted results will be discussed below.

**Violent versus natural deaths.**—The first hypothesis—that there would be no differences in psychological symptom levels between the widows whose husbands died from violent deaths and the matched sample of widows whose husbands died from natural deaths—was supported. With controls for social class and length of time between the death and interview, four relationships were significant: the Zung SDS, somaticism, anxiety, and phobic anxiety (adjusted \( F \) test results not displayed). However, only one of the \( F \) values for the Tukey post hoc tests (displayed in Table 2) to identify which groups were different from one another was significant. Widows whose husbands had died from long-term illnesses were significantly more anxious than widows whose husbands had died from sudden natural illnesses. Therefore, mode of death was not strongly associ-
Table 2. Psychological Symptom Measures: Unadjusted (Adjusted) Means for Mode and Expectedness of Death, Marital Status, and Race

<table>
<thead>
<tr>
<th>Mode of death</th>
<th>Zung SDS</th>
<th>Brief Symptom Inventory</th>
<th>Somaticism</th>
<th>Interpersonal Sensitivity</th>
<th>Anxiety</th>
<th>Obsessive–Compulsive</th>
<th>Depression</th>
<th>Hostility</th>
<th>Paranoid Ideation</th>
<th>Phobic Anxiety</th>
<th>Psychoticism</th>
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<tr>
<td>Homicide</td>
<td>52.6</td>
<td>84.5</td>
<td>9.7</td>
<td>6.3</td>
<td>10.1</td>
<td>10.5</td>
<td>7.4</td>
<td>8.5</td>
<td>7.9</td>
<td>7.2</td>
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<tr>
<td>(52.5)</td>
<td>(84.3)</td>
<td>(9.6)</td>
<td>(6.2)</td>
<td>(10.1)</td>
<td>(10.6)</td>
<td>(10.5)</td>
<td>(7.4)</td>
<td>(8.4)</td>
<td>(7.9)</td>
<td>(7.1)</td>
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<tr>
<td>Suicide</td>
<td>49.9</td>
<td>84.4</td>
<td>9.9</td>
<td>6.2</td>
<td>10.0</td>
<td>10.4</td>
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<td>7.2</td>
<td>7.9</td>
<td>6.8</td>
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<td>(50.0)</td>
<td>(84.5)</td>
<td>(9.9)</td>
<td>(6.2)</td>
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<td>(7.9)</td>
<td>(6.9)</td>
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<td>6.4</td>
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<td>(10.1)</td>
<td>(6.4)</td>
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<td>(7.9)</td>
<td>(7.2)</td>
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<tr>
<td>Sudden</td>
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<td>81.7</td>
<td>9.7</td>
<td>6.0</td>
<td>9.9</td>
<td>10.6</td>
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<td>7.3</td>
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<td>11.6</td>
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F (Tukey)^a

| Mode of death       | .05      | 1.3                    | 1.7       | 1.3                       | 2.6*    | 1.2                  | 1.0        | 0.5       | 1.7               | 1.1           | 1.5         |
|         (0.5)        | (1.3)    | (1.6)                  | (1.4)     | (2.5)*                    | (1.5)   | (0.9)                | (0.6)      | (2.2)     | (1.2)             | (1.5)         |             |

Expectedness of death

| Expectedness        | .05      | 3.7                    | 5.6*      | 3.8                       | 8.9***  | 4.2*                 | 1.5        | 0.5       | 0.1               | 0.5           | 2.5         |
|         (0.5)        | (3.7)    | (4.2)**                | (2.6)     | (4.5)**                   | (2.7)** | (1.1)                | (0.5)      | (1.5)     | (3.0)**           | (2.2)         |             |

Marital status

| Marital status      | .03      | 3.7                    | 5.6*      | 3.0                       | 8.9***  | 4.2*                 | 1.5        | 0.5       | 0.1               | 0.5           | 2.5         |
|         (0.3)        | (3.7)    | (4.2)**                | (2.6)     | (4.5)**                   | (2.7)** | (1.1)                | (0.5)      | (1.5)     | (3.0)**           | (2.2)         |             |

Age: violent death widows

| Age: violent death widows | .05      | 3.7                    | 5.6*      | 3.0                       | 8.9***  | 4.2*                 | 1.5        | 0.5       | 0.1               | 0.5           | 2.5         |
|                        (0.5) | (3.7)    | (4.2)**                | (2.6)     | (4.5)**                   | (2.7)** | (1.1)                | (0.5)      | (1.5)     | (3.0)**           | (2.2)         |             |

Race: violent death widows

| Race: violent death widows | .05      | 3.7                    | 5.6*      | 3.0                       | 8.9***  | 4.2*                 | 1.5        | 0.5       | 0.1               | 0.5           | 2.5         |
|                         (0.5) | (3.7)    | (4.2)**                | (2.6)     | (4.5)**                   | (2.7)** | (1.1)                | (0.5)      | (1.5)     | (3.0)**           | (2.2)         |             |

aAdjusted analysis of covariance scores for mode and expectedness of death, marital status, and race include the control variables of length of time between death and interview and Hollingshead Index of Social Position.

bTukey post hoc test results for violent and natural death by age.

*p < .05; **p < .01; ***p < .001.
ated with psychological symptoms when it was examined as the five types of violent and natural death.

When the psychological symptom measures were examined just for the three modes of violent death, there were also no significant differences without and with the addition of control variables (results not displayed). Thus, mode of death did not distinguish among the spouses of the homicide, suicide, and accidental death victims or between them and the spouses of the natural death victims. These findings support the results of the smaller, less complete studies of violent death reported upon above.

Death from sudden versus long-term illness.—The next hypothesis examined whether suddenness of death, regardless of the mode, was associated with higher levels of psychological symptoms. To test this hypothesis, the widows of the men who died from violent and short-term illnesses were combined into sudden deaths and compared to the widows of those who died from long-term illnesses. There were significant differences in symptoms by the unexpectedness of the death, but in the opposite direction of that hypothesized. When the control variables were introduced, five relationships between unexpectedness of the death and psychological symptoms were significant: the Zung SDS, somatic complaints, anxiety, obsessive–compulsive behavior, and phobic anxiety. Widows whose spouses died from long-term illnesses had greater distress. Because there were only two categories of independent variables, Tukey post hoc tests were not needed. Thus, contrary to expectation, deaths from longer term illnesses had greater effects on widows’ symptom levels than sudden deaths.

Comparison of Widowed and Divorced Women

Although there were no significant differences in psychological symptoms by mode of death, the widows were expected to have higher psychological distress than separated and divorced women. To test this hypothesis, the violent and natural death widows were collapsed into one category, widowed women. Compared to psychological symptom data from a sample of separated and divorced women collected in the same metropolitan area, mean distress levels for the widowed women were significantly higher than those of the divorced women.

For the adjusted relationships, the widows had significantly higher scores than did the divorced women on the Zung SDS and BSI and its subscales of somatic complaints, anxiety, depression, phobic anxiety, and psychoticism. For paranoid ideation, the divorced women had higher adjusted scores than did the widowed women.

Therefore, although the widows could not be distinguished from one another in their distress by mode of death, these findings illustrate a heightened degree of distress for the widows studied. In surveys, both divorced and widowed women generally have higher psychological distress than the married or single (Waite, 1995; Williams et al., 1992).

To summarize, within the first 5 or 6 months of the death, the wives of the homicide, suicide, and accidental victims could not be distinguished from one another in their psychological symptom levels nor could they be distinguished from the natural death widows when that group was divided into those whose spouses died from short- or long-term illnesses. When the violent and natural death widows whose husbands died from natural causes in a day or less were combined and compared to those whose husbands died from longer term natural illnesses, it was the widows of the men who died from longer term illnesses who had the higher symptom levels. Thus, it was chronicity of illness, not unexpectedness, that affected adjustment adversely.

The widows were distressed, however; compared to a sample of divorced women drawn from the same metropolitan area, the widowed women had significantly higher scores on the majority of the psychological symptom indicators. In the following sections, the impact of age and race on adjustment are explored.

Age

The next hypothesis was that age of the surviving spouse would be related to psychological distress, with those who were the youngest (ages 19–34) having the highest levels of distress compared to those who were middle-aged (ages 35–50) or older (ages 51–74). The use of a control group matched by age to the violent death spouses would magnify any age effects observed if all the cases were examined altogether; therefore, to test this hypothesis, the widows were divided into those whose husbands died from violent or natural causes. In both groups, the hypothesis was supported, although somewhat more substantially in the control group.

For the adjusted scores for violent death widows, there were significant age differences in symptoms for the following scales: the BSI, interpersonal sensitivity, hostility, paranoid ideation, phobic anxiety, and psychoticism (F tests not displayed in Table 2). The Tukey post hoc tests (Fs displayed) indicated that in five of the six scales (not including phobic anxiety) there were significant differences by age. For the BSI, interpersonal sensitivity, paranoid ideation, and psychoticism scales, although not different from one another, the scores for youngest age group (age 34 and under) and the middle-aged group (ages 35–50) were significantly different from and higher than the scores of the oldest group, those aged 51 to 74. In every instance, the oldest widows had the least distress.

Although those under 35 had the highest and significantly different symptom scores from the oldest widows, who had the lowest scores, the middle-aged did not have significantly different scores from the others on the hostility scale. Thus, among the violent death widows, age influenced adjustment, but the middle-aged and youngest groups had more distress and the oldest group had the least distress.

For the control group, widows exhibited significant age differences in symptoms scores on seven of the adjusted scores: the BSI, interpersonal sensitivity, anxiety, depression, hostility, paranoid ideation, and psychoticism (Fs not displayed). The Tukey post hoc test results (displayed in Table 2) indicated that at least some of the mean differences were significant for all relationships. Again, in all instances, it was the oldest widows who reported the least distress. The middle-aged widows (ages 35–50) reported significantly more distress in comparison to the oldest widows on the BSI, interpersonal sensitivity, anxiety, and depression scales. There were no significant differences with the
youngest group for these scales. For hostility, paranoid ideation, and psychotism, the youngest and the middle-aged widows had significantly different scores from the oldest widows, but there were no significant differences on scores between the two younger groups.

These findings consistently support the hypothesis of age differences in psychological symptoms and indicate that age plays a greater role in adjustment than does mode of death. It was not, however, the youngest widows who were the most distressed: they and the middle-aged had similar scores. The oldest group reported the least distress. These results differ from some previous studies by having a larger sample and an age continuum. Neugarten’s (1979) thesis of the off-timeness of death as a source of distress is also supported, although in these data it was not the most off-time group, the youngest widows, who had the greatest distress.

Race

The next hypothesis concerned differences in adjustment by race, with Black widows expected to have lower psychological symptom levels than White widows. Because of the matched sample, to test this hypothesis, the data were again divided into violent or natural deaths. There was no support for the hypothesis in the violent death sample and some support for it in the natural death sample.

Among the violent death widows, there were two differences by race, but in the opposite direction of that predicted. Black women reported significantly more distress than did White women on the Zung SDS and phobic anxiety scale.

For the adjusted results for the control group sample, the Black natural death widows reported lower psychological distress than did the White women on four of the scales: somatic complaints, interpersonal sensitivity, anxiety, and obsessive–compulsive behaviors. For the paranoid ideation scale, Black women reported higher symptom levels than White women. Thus, there was some support for the hypothesis that there were differences in adjustment by race for Black natural death widows but not for Black violent death widows who had heightened distress compared to White violent death widows. While race played some role in adjustment, it was not as strong as that of age.

In these analyses, in which age and race were related to psychological symptoms, mode of death had little influence on adjustment, even with controls for months since the death and social class. It is possible that age and/or race might interact with mode of death to influence the psychological symptom scores. In the next sections, these possibilities are explored.

Mode of Death and Age

When mode of death was added to the analysis of covariance along with age and the control variables, there were five instances in which there were statistical interactions: the BSI, interpersonal sensitivity, anxiety, hostility, and psychotism. To test for the significance of the interactions, age was split into the young, middle, and old categories, and the relationships between mode of death and psychological symptoms were examined.

For all five scales, at least some of the interactions of mode of death and age were significant as assessed by the Tukey post hoc test. There were, however, no significant differences by mode of death among those in the youngest group and only one among the oldest. Among those aged 50 to 74, widows whose spouses died from homicide had significantly higher scores (M = 8.2) than those whose spouses died from suicide, M = 5.7, F(4,176) = 2.7, p < .05. With homicides more frequent among younger persons, the homicides among older men may have been particularly upsetting.

For the BSI scale, those aged 35 to 50 whose spouses died from sudden natural causes had significantly different scores from those whose husbands died from long-term illnesses, respectively, Ms = 83.7 and 101.3, F(4,190) = 3.8, p < .01. For interpersonal sensitivity, those aged 35 to 50 whose husbands died from accidents had significantly higher scores (M = 7.7) than those whose spouses died from sudden natural causes, M = 6.1, F(4,193) = 3.6, p < .01. For anxiety, middle-aged women whose spouses died from long-term illness had significantly higher scores (M = 13.3) than did those whose spouses died from homicide, M = 9.3, F(4,193) = 5.2, p < .001. For the psychotism scale, the spouses of the accident victims had the highest mean scores (M = 9.3) and significantly higher scores than either the spouses of the suicide (M = 7.1) or sudden natural death victims, M = 7.6, F(4,192) = 4.4, p < .01. There were some interactions with age and mode of death but primarily among the middle-aged group, providing some support for the hypothesis of heightened distress for off-time deaths.

For five of the six remaining models, there were significant effects for age: the Zung SDS, somatic complaints, obsessive–compulsive behaviors, depression, paranoid ideation, and psychotism. Only the relationship for phobic anxiety was not significant. The Tukey post hoc tests were not performed to examine which pairs of relationships between age and psychological symptoms were significant because combining the violent and natural death groups would have led, again, to double counting for the matched age data. However, as with the age data displayed in Table 2, in each instance, the observed mean psychological symptom scores for those 51 to 74 were the lowest, with the middle-aged and youngest widows exhibiting higher scores.

Mode of Death and Race

It was hypothesized that there would be statistical interactions between mode of death and race. For the adjusted models, there were six statistical interactions for the following scales: BSI, interpersonal sensitivity, anxiety, hostility, paranoid ideation, and psychotism. To test the hypothesis, race was split into White and Black widows and, for each group, the relationship between mode of death and psychological symptoms was examined. None of the Tukey post hoc tests were significant for the White widows; for Blacks they were significant for hostility and paranoid ideation, supporting the hypothesis of greater distress for deaths by suicide for Blacks. For hostility, Black widows whose spouses died from suicide had significantly higher symptom scores (M = 9.2) than did those whose spouses died from accident or sudden natural causes, respectively, M = 6.7 and 7.0, F(4,225) = 3.3, p < .05. For paranoid ideation, women whose husbands died from suicide had significantly higher scores (M = 9.9) than did those whose spouses died...
from sudden natural causes, $M = 7.5$, $F(4,227) = 3.7$, $p < .01$. These results do not support any differences among White widows based on the relative infrequency of homicides and accidents; for Black widows, however, there is some support for the hypothesis of greater distress for the infrequent and stigmatized event of suicide.

Among the remaining models for race, mode of death, and psychological symptoms, only one model—that for phobic anxiety—was significant. Black widows ($M = 7.3$) were more distressed than White widows, $M = 7.1$, $F(11,520) = 1.9$, $p < .05$.

Thus, race and mode of death played some role in adjustment to bereavement. As expected, suicide was more distressing for Black widows than for Whites on several of the indicators, but there was no evidence that homicides or accidents were more distressing for Whites.

A final test was to examine mode of death, age, and race together to see if there were any significant three-way interactions. There were none.

**Discussion**

This is one of the few studies to look at psychological adjustment for the spouses of homicide, suicide, accidental, and natural death victims simultaneously. Such data are needed because of the differences in mode of death by age and race and the need for more knowledge about how survivors adjust to death by these variables.

As expected from previous research, these findings indicate that, approximately 5 to 6 months after their spouses died, mode of death made little contribution to any of the analyses when violent death widows were compared to one another or compared to the spouses of natural death victims who died from short- and long-term illnesses. Regardless of the way in which their husbands died, all of the widows were similarly distressed.

When the widows whose husbands had died from unexpected deaths (violent and sudden natural deaths) were compared to women whose husbands died from longer term illnesses, it was, contrary to expectation, the widows of men who died from longer term illnesses who exhibited greater distress.

Although unexpected deaths are thought to increase adjustment difficulties, Parkes and Weiss (1983) in their longitudinal study identified two syndromes that may account for some of these results. First, they found that individuals whose spouses died without any warning experienced what they called “unexpected loss syndrome.” They initially denied the reality of the loss and then had long-term difficulties in adjustment. A second syndrome, “conflicted grief,” occurred among widows who reported high marital conflict and ambivalent spousal relationships. With little trouble adjusting initially, over time they had longer term adjustment problems. Finally, in a prospective study, Norris and Murrell (1987) found, compared to a nonbereaved control group, that family stress was high before the death for subjects who subsequently had a family member die from a serious or chronic illness; then depression increased after the death. Thus, the suddenness of some deaths and troubled marital relationships could delay the advent of higher levels of symptoms.

While neither violence nor the suddenness with which the deaths occurred were important elements in the widows’ initial adjustment difficulties, these variables need to be examined in other studies and also later in the adjustment process to see if an increase in symptoms occurs as a delayed reaction. The results of other longer term violent death studies have, however, been mixed with mode of death, sometimes remaining a nonsignificant indicator of psychological distress, as have studies on the role of anticipatory grief and sudden versus expected natural deaths (for reviews see Österweis et al., 1984; Stroebe & Stroebe, 1987).

In this research, the results are not simply due to the fact that the widows of the men who died from longer term illnesses were different from others in the study. Each violent death victim was matched to a person who died from natural causes by age, race, and census tract of residence. With little change in the results, the analyses were also conducted with and without controls for length of time between the death and interview and socioeconomic status. These steps increase the surety that the differences observed are due to mode of death, not differences in the subjects.

Although the response rates in this research compared favorably to those of other research on violent and natural deaths, it is important to consider the impact of the generally lower response rates of bereavement research on results (see also Farberow et al., 1987). In a review of sampling issues, Stroebe and Stroebe (1989–90) concluded that those who replied to bereavement surveys were more likely to have experienced an expected death and to be healthier and more recovered than nonrespondents. In the research reported upon here, if the more adjusted of each group were likely to respond, this bias would decrease differences among the widows, making it more difficult to test the hypotheses about mode of death.

Despite the lack of effects for the variable mode of death, the widows in this study were distressed. Comparisons with a sample of divorced women from the same metropolitan area and using the same psychological symptom scales indicated that the widows were significantly more distressed than the divorced women on a variety of indicators of psychological symptoms.

Of the variables examined, age made the greatest contribution, with the young and middle-aged widows being more distressed than their older counterparts. Based on previous research, it was expected that the youngest widows would be the most distressed, but previous research had not included a continuum of ages. The results do support the idea of off-timeness as an important element in adjustment difficulties, but expands off-timeness to the middle-aged group.

Although many deaths of people early in the life course are due to violent causes, the distress of such deaths may not be due to the mode of death, but to the time in the survivor’s life that the death occurred. The meaning of off-timeness for those who experience such events needs to be explored more fully as in this study, early in the adjustment process and, also, later.

More data are also needed on the impact of bereavement across the life course both for men and for women. It is difficult to collect data on women who have died from violent means because such deaths are uncommon, but knowledge about bereavement is truncated without such data.
Bereavement differences by race have rarely been examined, and more analyses are needed. It was hypothesized that Black widows would have fewer psychological symptoms than did White widows in this urban, predominantly lower socioeconomic sample. Nationally, there are more deaths among Black persons than Whites at each age across the life cycle, thus possibly making death a more frequent, normative part of the life course for Blacks. This, along with the greater role of social supports and religion in the Black community, may lessen the centrality of marriage relationships and, therefore, distress at the loss of the spouse, particularly in natural deaths among those of lower socioeconomic status. Because of the matched samples, the hypothesis was looked at separately in the violent and natural death samples. There was no support for the hypothesis in the violent death sample. In fact, Black widows had higher scores than Whites on several of the psychological symptom scales. In the control group sample there was support for the hypothesis, with Black natural deaths having lower distress scores than Whites on some of the scales.

There were also, as expected, some statistical interactions between race and mode of death, so that suicide was, as hypothesized, the most distressing type of death for Blacks on some of the psychological indicators. Contrary to expectation, however, White widows did not have greater difficulty than Blacks coping with deaths by homicides and accidents. Why these findings occurred is unclear. Although hypotheses were derived from what was known, there is little previous research on psychological adjustment by race and still less on bereavement differences to provide leads. Jackson (1991) has called for more research on racial differences in adjustment using a life-course perspective that includes structural and cultural variables.

These findings, as have results from smaller studies and those with fewer types of violent death, do not provide much support for the role of mode of death in psychological adjustment. As Farberow and colleagues (1992, p. P364) noted in their 24- to 30-month follow-up study of suicide and natural death survivors, initially interviewed within 8 weeks of the deaths of their spouses, “Apparently, to the survivor, it is the fact of a loss through death that makes the most impact, not the way the death occurred.” Such empirical results differ from those of clinical studies. A subgroup of those who experienced the violent death of a loved one may have particularly severe reactions that require clinical intervention early or later in the bereavement process (e.g., Parkes, 1993). More community-based data are needed examining the differences and similarities between those who seek assistance and those who do not.

To explore the potential impact of violent death more fully, other indicators of adjustment need to be explored beyond psychological symptoms, such as post-traumatic stress and guilt. For violent death victims, many of whom led troubled lives before their deaths, the quality of the marital relationship may influence the adjustment of their spouses. Given the suddenness of many of these deaths, longer term reactions also need to be explored.

The etiology and consequences of deaths by homicide, suicide, and accidents seem particularly complex and wide-ranging, especially given the youth of many victims and survivors. This argues for more detailed analyses of the impact of such violence on adjustment across the life course.

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