# Who's to Blame? Perceived Responsibility for Spousal Death and Psychological Distress among Older Widowed Persons*

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*I examine the ways that bereaved older adults attribute responsibility for their late spouses' deaths, and the consequences of such attributions for psychological adjustment to loss. Data are from the Changing Lives of Older Couples, a prospective study of married persons ages 65 and older. Bereaved persons whose late spouse smoked and had a sedentary lifestyle attributed higher levels of blame to the decedent. Persons who believe that their late spouse's stressful lifestyle and poor health care compliance contributed to the death report significantly lower levels of yearning, yet these effects are no longer statistically significant when marital quality is controlled. Bereaved spouses who believe health care providers contributed to the death report significantly more anger symptoms. The findings suggest that older adults adhere to a "secular morality"; deceased spouses who previously maintained unhealthy lifestyles are viewed as partly responsible for their own deaths.*

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Spousal loss is considered one of the most distressing life events (Holmes and Rahe 1967), yet psychological reactions to loss vary widely based on the cause and context of the death (Carr 2003). One important aspect of the death context, however, has been ignored in past studies: death blame, or the survivor's belief that the late spouse or another significant other is at least partly responsible for the death. Death historically was viewed as an act of God and beyond the control of the individual (Aries 1981). However, recent shifts in mortality patterns and cultural views toward the controllability of death suggest that bereaved persons may ascribe blame for spousal death. The extent to which a bereaved older adult holds his or her late spouse, a health care provider, or a significant other accountable for the death may have potentially harmful psychological consequences, as suggested by theoretical writings linking moral violations with emotional distress (Averill 1983).

This study examines: (1) how bereaved older adults attribute responsibility for a spouse's death; (2) the behavioral and psychosocial factors that affect these attributions; and (3) the extent to which death blame affects the bereaved spouse's post-loss anger and yearning symptoms. Analyses are based on data from the Changing Lives of Older Couples, a prospective study of spousal loss among American men and women ages 65 and older. Understanding the relationship between death blame and the psychological adjustment of older widows and widowers is critically important. Most

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older adults today die of chronic illnesses that are partly linked to their health behaviors, and that require long-term care (Federal Interagency Forum on Aging-Related Statistics 2007). As family members play an increasingly involved role in their loved ones' complex health care regimens at the end of life (Lynn and O'Mara 2001), the risk of error and subsequent assessment of "blame" may create unique stressors for current cohorts of older adults.

## THEORETICAL BACKGROUND

Over the past two centuries, the experiences of death and dying have shifted dramatically. An epidemiologic transition has occurred, where lifestyle-related diseases have replaced infectious diseases as the leading causes of death (Olshansky and Ault 1986; Omran 1971). In the nineteenth and early twentieth centuries, deaths occurred primarily due to infectious diseases, such as diphtheria and pneumonia. Infectious diseases typically resulted from unsanitary living conditions, and their onset was not stratified by social class, gender, or lifestyle, although the young and old were particularly susceptible (Preston and Haines 1991). By contrast, most deaths since the middle of the twentieth century are attributable to chronic illnesses that strike late in life, such as cancer and heart disease. Whereas infectious diseases were generally egalitarian in their targets, most chronic diseases are highly stratified by gender, social class, and lifestyle choices. Omran (1971) characterized the current era as the age of "man-made diseases," because diseases such as cancer and cardiovascular disease are linked to personal risk factors such as smoking, drinking, diet, and both personal and environmental stressors.

These changes in mortality patterns have been accompanied by shifts in cultural beliefs about risk and mortality. In the nineteenth and early twentieth centuries, the widespread occurrence of infectious diseases and epidemics created a "shared sense of vulnerability." Epidemics typically had a sudden onset and a widespread impact, creating the "perception of a world not clearly under human control" (Brandt 1997:54). Efforts to curb the spread of contagious diseases through medical intervention, sanitation, or quarantine usually failed. Death was widely believed to be beyond the individual's control. Although personal traits such as "constitution" or heredity were viewed as risk factors, personal choices and moral character seldom were indicted as a "cause" of disease (Rosenberg 1989).

In contemporary Western societies, by contrast, health risks are regarded as "acquired" via personal choices and behaviors (Crawford 1987). Individuals regularly receive and internalize messages from the media, health care providers, family members, and peers that their personal choices about diet, smoking, exercise, alcohol consumption, work conditions, and even emotional responses such as worrying contribute to their health and, ultimately, to their risk of death. With the rise of public health interventions and practices throughout the twentieth century, health promotion and disease prevention have become widely accepted ideals (U.S. Department of Health and Human Services 2000). For example, *Healthy People 2010,* a comprehensive health promotion and disease prevention agenda of the Federal government, asserts that "individual behaviors and environmental factors are responsible for about 70 percent of premature deaths in the United States" (U.S. Department of Health and Human Services 2000:18) and calls on individuals "to make healthy lifestyle choices for themselves and their families" (p. 1).

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Such public health efforts carry an implicitly *moral* message: Lack of self-control, gluttony, and other stigmatized behaviors affect one's mortality risk (Rozin 1997). Katz (1997) has characterized the current ideological climate as one of "secular morality" (p. 298), where individuals who deliberately defy widely-established healthy lifestyle guidelines have violated the new "secular moral code." However, when individuals do contract a "lifestyle" disease without having engaged in a blameworthy health behavior (e.g., nonsmokers diagnosed with lung cancer), such diagnoses are portrayed by the media and health care community as statistical aberrations that should not be factored into one's personal risk assessment (Laupacis, Sekar, and Stiell 1997). That is, luck and chance are minimized, and personal control emphasized in public discourses about health risks.

Individual agents of social institutions—including health care systems, families, and employers—also are charged with the moral edict of preserving others' health. Upon taking the Hippocratic oath, physicians swear to promote and protect the health of their patients (Kao

and Parsi 2004). When taking traditional marriage vows, spouses promise to support one another "in sickness and in health," and a vast body of empirical research confirms the protective effects of marriage for health (Umberson 1992). Federal policies and labor union work rules dictate that employers should not compromise the health of their workers (Viscusi 1983). More generally, norms of social responsibility prescribe that individuals should assist—and not deter—their significant others as they attempt to maintain good physical health.

Thus, my first aim is to document the extent to which older widows and widowers hold their late spouses responsible for their own deaths, the reasons for this attribution, and the extent to which the bereaved person holds other persons accountable for the death. The second aim is to identify factors associated with attributions of spousal blame. Consistent with the "secular morality" thesis, I expect that bereaved persons whose late spouses engaged in unhealthy practices, such as smoking or a sedentary lifestyle, or who died of health conditions believed to be associated with health behaviors (e.g., cancer) will attribute higher levels of responsibility to the decedent. I also expect that surviving spouses who engaged in positive health behaviors themselves will attribute higher levels of blame to the decedent. Given the well-documented correlation between spouses' health behaviors (Meyler, Stimpson, and Peek 2007), I explore whether these effects persist when both spouses' health behaviors are controlled.

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### *Implications of Death Blame for Survivor Well-being*

Given the pervasiveness of cultural messages dictating that individuals are morally responsible for protecting their own health and the health of their significant others, how do older adults adjust psychologically to spousal loss when they believe that the death is partly a consequence of the decedent's own actions, or the actions of a significant other? Theoretical writings on emotion propose that events or actions involving the violation of widely-accepted moral edicts may engender anger, rather than sadness (e.g., Averill 1983). Attributions of blame are a central component of anger; an individual is believed to have deliberately caused the anger-provoking event, or is viewed as capable of having prevented it (Frijda 1993). Drawing upon conceptual writings on anger, I expect that bereaved persons who believe their late spouse or a significant other (including self, family, friends, coworkers, or health care providers) contributed to the death will experience more anger symptoms than persons who do not cast blame.

A bereaved person's perception of blame also may affect the extent to which he or she yearns for the deceased. Yearning refers to a preoccupation with and pining for the deceased (Bowlby 1980). I expect that bereaved persons who hold the late spouse or other person(s) accountable for the death will report more frequent yearning for the deceased, as they may desire to continue their emotional bond with their late spouse in an effort to make amends for the perceived wrongdoing (Field and Bonanno 2001). "Continuing bonds" with the deceased is an adaptive practice that may provide comfort as one copes with the pain of loss (Boelen et al. 2006). Bereaved spouses who view either the decedent or significant others as having contributed to the death, and who could not stop such actions, may be motivated to maintain emotional ties with the deceased, in an effort to set things right.

I examine prospectively whether attributions of blame (assessed retrospectively, six months post-loss) affect symptoms of anger and yearning (assessed 18 months post-loss). I examine the emotional consequences of three aspects of blame: (1) the degree to which a bereaved spouse holds the decedent responsible for the death, (2) the specific reason why the bereaved holds the decedent responsible, and (3) whether the bereaved holds other persons responsible for the death.

### *Other Influences on Death Blame and Survivor Psychological Adjustment*

Both one's attributions for a spouse's death and post-loss symptoms of anger and yearning may be shaped by a shared set of influences. To account for the possibility that an observed statistical association is spurious, I control four potential confounding influences: (1) the cause of death; (2) the bereaved spouse's psychological and physical health prior to loss; (3) psychosocial factors including marital quality, locus of control, and religiosity; and (4) sociodemographic characteristics.

First, I adjust for the cause of death, because illnesses believed to be associated with "lifestyle" choices (e.g., cancer, heart disease)

may trigger blame on the part of the surviving spouse regardless of the decedent's actual health behaviors, reflecting widespread public health messages about the etiology of such diseases (U.S. Department of Health and Human Services 2000). Additionally, evidence from the Changing Lives of Older Couples study suggests that adjustment to spousal loss is associated with the cause of death and duration of the illness prior to death (Carr et al. 2001; Carr 2003). Second, I control the bereaved spouse's psychological and physical well-being prior to loss, to distinguish well-being before the death and changes that occurred following the death.

Third, I control for three psychosocial factors (marital quality, religious coping, and locus of control) that may shape both one's appraisal of blame and one's emotional response to the loss. Persons with high quality marriages report elevated levels of yearning for their late spouse (Carr et al. 2000), consistent with the tenet of attachment theory that grief is most acute for persons experiencing the loss of emotionally rewarding relationships (Bowlby 1980). Marital quality also may shape attributions of blame; persons in high quality marriages tend to offer unrealistically positive assessments of their partners' character and behavior, while those in troubled marriages tend to characterize their spouses' behavior in a negative light (Gagne and Lydon 2004). To address these concerns, I control for marital quality assessed *prior to loss,* so that the assessments are not positively biased by retrospective "sanctification" (Lopata 1981).

I also consider the role of religious coping. Persons who rely on religious beliefs or practices to cope with stress show better adjustment to loss (Hays and Hendrix 2007). They also may be less likely to cast blame for their loved one's death, instead believing in "divine control," whereby God controls the events and outcomes of one's daily life (Schieman et al. 2006). I also adjust for one's locus of control. Persons with an external locus of control tend to believe that fate or chance determine life events, thus they may be less likely to attribute blame for the death. Research linking locus of control to bereavement outcomes is equivocal; persons with an external locus of control are better able to manage emotional aspects of the loss, but are less well-equipped to cope with the practical, behavioral adjustments required (see Hansson and Stroebe 2007 for a review).

Finally, I control socioeconomic and demographic characteristics. Low socioeconomic status (SES) increases the odds of becoming widowed (Preston and Taubman 1994) and experiencing distress (Johnson et al. 1999). Given the association between SES and health risk behaviors (Lantz et al. 1998), and the tendency of spouses to share risk behaviors (Meyler et al. 2007), bereaved persons with fewer economic resources may be more likely to both have unhealthy behaviors and to have been married to a person who also did so.

In sum, I explore whether and how older adults attribute responsibility for their late spouses' deaths; the personal and spousal characteristics that shape these assessments; and the emotional consequences of perceiving blame. I use data from a prospective study of older married couples to explore the way that death attributions, obtained six months after spousal loss, affect spouses' psychological adjustment 18 months after loss. The Changing Lives of Older Couples study obtained data from married couples at the pre-loss interview, thus all measures of the late spouse's health behaviors were reported by that spouse prior to his or her death. The availability of pre-loss couple-level data and the two post-loss interviews make the Changing Lives of Older Couples data ideally suited for the prospective exploration of death blame and its emotional consequences.

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## METHODS

### *Data*

The Changing Lives of Older Couples is a prospective study of a two-stage area probability sample of 1,532 married individuals from the Detroit standardized metropolitan statistical area. Respondents were noninstitutionalized, English-speaking members of a married couple where the husband was age 65 or older. Approximately 65 percent of those contacted for an interview participated, consistent with response rates from other Detroit area studies. Baseline face-to-face interviews were conducted in 1987 and 1988. The 1,532 persons who participated at baseline included 423 couples, or 846 individuals for whom both one's own and one's spouse's self-reported data were obtained. Individuals were randomly selected to have their spouse also interviewed for the study.

After the baseline interviews were completed, investigators monitored spousal loss by

reading obituaries in three Detroit-area newspapers and by using monthly death record tapes provided by the State of Michigan. The National Death Index was used to confirm deaths and obtain causes of death. Women were oversampled at the baseline interview in order to maximize the number of participants who would become widowed during the study period. The data are weighted to adjust for unequal probabilities of selection and response rate. Of the 319 respondents who lost a spouse during the study period, 86 percent (N = 276) participated in at least one of the three follow-up interviews conducted six months (wave 1), 18 months (wave 2) and 48 months (wave 3) after the spouse's death.

My analytic sample is limited to the 210 bereaved persons who completed the six-month follow-up interview because death blame was assessed at this wave only. The analyses focus on two specific subsamples. First, I identify the baseline characteristics that predict one's attribution for the spouse's death; this subsample includes the 100 bereaved persons who participated in the baseline and six-month follow-up interviews *and* whose spouses also participated in the baseline interview. This restriction allows me to consider the late spouse's own health behavior reports, rather than relying on the bereaved spouse's retrospective account at the six-month follow-up, which could be biased by a post-loss "sanctification" of the decedent (Lopata 1981). The second part of the analysis explores whether the surviving spouse's attribution for the death affects his or her adjustment to loss; this analysis focuses on the 155 persons who participated in the six-month and 18-month follow-up interviews. This sample restriction allows me to examine prospectively the effect of death blame (at six-month follow-up) on subsequent psychological adjustment to loss (at 18-month follow-up).[1]

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### *Dependent Variables*

I focus on two outcomes: (1) whether the surviving spouse blames the decedent for his or her death (at the six-month follow-up); and (2) psychological adjustment to loss (at the 18-month follow-up). I assess *the belief that one's late spouse was responsible for his or her own death* with the question, "Do you feel that your husband/wife did things that may have contributed to his/her death? No, not at all; yes, a little; yes, somewhat; or yes, a great deal." Responses are coded from 1 to 4, where 1 represents "no, not at all" and 4 represents "a great deal."

I consider two aspects of adjustment to loss: anger and yearning. *Anger* ($\alpha$ =. 63) is measured with two items: "In the past month, have you felt (a) resentful or bitter about the death? and (b) the death was unfair."[2] *Yearning* ($\alpha$ =. 75) is assessed with four items: "In the last month, have you (a) found yourself longing to have your spouse with you; (b) had painful waves of missing your spouse; (c) experienced feelings of intense pain or grief over the loss of your spouse; and (d) experienced feelings of grief, loneliness, or missing your spouse?" Response categories range from 1 to 4 ("no, never," "yes, rarely," "yes, sometimes," and "yes, often"). Items are averaged and standardized; higher scores reflect more symptoms. Items were drawn from widely used scales including the Bereavement Index (Jacobs, Kasl, and Ostfeld 1986).

### *Independent Variables*

*Characteristics of deceased spouse.* I consider three indicators of the late spouse's self-reported risk factors at baseline: (1) body mass index (BMI), (2) exercise frequency, and (3) smoking history.[3] *BMI* is a continuous measure calculated by dividing weight in kilograms by height in meters squared. Height and weight were self-reported at baseline.[4]

*Exercise frequency* ($\alpha$ = .61) is a three-item scale based on the questions: "How often do you: take walks for exercise or pleasure; take walks or get any kind of exercise with a pet or with someone you know; and participate in active sports or exercise"? Response options were "never," "rarely," "sometimes," or "often." Responses to the three questions are averaged for each respondent, and then standardized, with a mean of zero and a standard deviation of one; higher scores reflect more frequent exercise. *Smoking history* is captured with two dichotomous variables indicating current smokers and former smokers; the reference category is comprised of persons who never smoked.

*Death attribution.* The central independent variable for the psychological adjustment analysis is perceived responsibility for spousal death. At the six-month follow-up interview, bereaved respondents indicated whether and to whom they attributed blame for their late spouse's death. As noted earlier, respondents were asked initially, "Do you feel that your

[husband/wife] did things that may have contributed to his/her death?" Responses are coded into the categories of a "little," "somewhat," and "a great deal"; the reference category is "no, not at all."

Persons who give responses other than, "no, not at all," were then asked, "what did he/she do that may have contributed to his/her death?" Respondents could name up to three ways that the spouse contributed; open-ended responses were recoded into seven closed-ended categories: smoking, alcohol/drug use, improper eating habits, lack of exercise, putting off or refusing medical care, emotional stress, and physical stress. I recoded the closed-ended categories into three broad categories: *health behaviors* (e.g., smoking, diet), *health care* (i.e., put off or refused medical care), and *stressful lifestyle* (i.e. subjected self to physical or psychological stress). The reference category is comprised of persons who do not believe that their spouse contributed to their own death.

Respondents also are asked, "Do you feel that *anyone else* did things that may have contributed to your spouse's death?" They could name up to two people, and then specify what that person did (e.g., "our son took drugs and created too much stress for my husband," "his doctor was incompetent"). Categories include *respondent (self), friend or relative, hospital/physician,* and *employer/coworker.* The reference category includes those who do not believe that anyone else contributed.

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*Bereaved spouse's health risks.* In models evaluating the correlates of spouse blame assessments, I consider as possible predictors the surviving spouse's own risk factors as reported at baseline. These include: *BMI, frequency of exercise* ($\alpha$ = .62), and *smoking history.* BMI and exercise frequency are measured exactly the same way as for the now-deceased spouse. A dummy variable captures whether one was currently smoking at the baseline interview.

*Psychosocial characteristics.* Marital quality, religious coping, and external locus of control may influence both one's attribution for, and psychological reaction to, loss. *Marital quality* ($\alpha$ = .88) is assessed with seven items: (1) "How much does your spouse make you feel loved and cared for?"; (2) "How much is your spouse willing to listen when you need to talk about your worries and problems?"; (3) "There are some serious difficulties in our marriage" (reverse-coded); (4) "Thinking about your marriage as a whole, how often do you feel happy about it?"; (5) "Taking all things together, how satisfied are you with your marriage?"; (6) "How often do you feel bothered or upset by your marriage?" (reverse-coded); (7) "My spouse doesn't treat me as well as I deserve to be treated" (reverse-coded). Items are drawn from the Dyadic Adjustment Scale (Spanier 1976). Scores are averaged and standardized, where higher scores reflect better marital quality.

*Religious coping* ($\alpha$ = .76) comprises three items: (1) "In general, how important are religious or spiritual beliefs in your day-to-day life?" (2) "When you have problems or difficulties in your family, work, or personal life, how often do you seek spiritual comfort or support?" and (3) "When you have decisions to make in your everyday life, how often do you ask yourself what God would want you to do?" Responses are averaged and standardized. Higher scores reflect a greater reliance on religious coping. Items are adapted from the Religious Coping Scale (Pargament et al. 1988).

*External locus of control* ($\alpha$ = .76) is assessed with four items: (1) "When I get what I want, it's usually because I'm lucky"; (2) "Often there is no way I can protect myself from bad luck"; (3) "It's not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune"; and (4) "I believe that chance or luck plays an important role in my life." Higher scores reflect a greater degree of perceived external control. Items are adapted from Rotter (1990) Internal-External Locus of Control scales.[5] All psychosocial indicators were assessed at baseline.

*Potential confounding variables.* All multivariate models include measures of pre-loss psychological and physical health, cause of death, and demographic and socioeconomic characteristics of the surviving spouse. *Depressive symptoms* ($\alpha$ = .83) at baseline are assessed with a subset of nine negative items (e.g., "I felt depressed") from the widely used 20-item Center for Epidemiologic Studies depression (CES-D) scale (Radloff 1977). Respondents were asked to indicate how often they experienced symptoms in the week prior to interview.

*Anxiety* ($\alpha$ = .86) is assessed at baseline with ten items from the Symptom Checklist 90 Revised (Derogatis and Cleary 1977). Respondents were asked to indicate how often they have experienced each of ten symptoms

(e.g., "feeling fearful") in the week prior to the interview. Depression and anxiety scores are standardized, and higher scores reflect more symptoms. Respondent's *physical health* is assessed with the question, "How would you rate your health at the present time?" Responses range from "excellent" (coded 1) to "poor" (coded 5).

*Cause of death* is assessed retrospectively at the six-month follow-up. Dummy variables indicate deaths due to: *heart disease* (including circulatory system and heart conditions); *stroke*; *cancer* (including all sites); and *other causes,* including respiratory and digestive system disorders. I focus on cancer, stroke, and heart disease because they are the leading causes of death for older adults today and are associated with personal risk factors (Federal Interagency Forum on Aging-Related Statistics 2007). Several diseases coded as "other" are associated with health behaviors, such as cirrhosis and emphysema, yet fewer than 10 respondents indicated these conditions as a cause of their spouse's death. Disease categories are not mutually exclusive, because a bereaved spouse could report up to three causes of death.

Three indicators of socioeconomic resources at baseline are considered: *education* (ranging from 3 to 17 years of completed schooling), *home ownership* (1 = owns home), and *total household income* (natural log of income). All analyses include controls for *female* (1 = female; 0 = male), *black* (1 = black, 0 = white), and *age* (in years). All models also are adjusted for the duration (in months) between the baseline and six-month follow-up interviews. Although the first follow-up interview took place exactly six months after the death, the time elapsed since baseline ranges from nine to 76 months due to variation in the timing of spouse's death. Consequently, baseline assessments are more temporally distant for those who lost their spouses at later dates.[6] Descriptive statistics for all measures are presented in Table 1.

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## RESULTS

### *Sample Characteristics*

Table 1 presents means (or proportions) and standard deviations for all variables used in the analysis. The majority (63%) of older widows and widowers say their late spouse was not responsible for his or her death, and equal proportions (12% each) view their spouse as "a little," "somewhat," or "a great deal" responsible. Of those who view the deceased as responsible, two-thirds mention the spouse's health behaviors as blameworthy, while slightly less than 20 percent mention either stressful lifestyle or poor compliance with health care providers' recommendations. Bereaved spouses rarely blamed others; the proportion of respondents who say that friends or relatives, health care professionals, or their spouse's employer (or coworkers) contributed to the death ranges from just 3 to 7 percent. Less than 1 percent of bereaved spouses report that they contributed personally to the death.

### *Who Views Their Spouse as Blameworthy?*

The first objective of the multivariate analysis is to identify the factors that affect the extent to which one holds the late spouse responsible for his or her death. I use ordinal regression models; the four outcome levels range from "not at all" to "a great deal."[7] Model 1 presents the effects of the late spouse's self-reported risk factors, cause of death, and the surviving spouse's baseline physical, psychological, and demographic characteristics. Model 2 incorporates psychosocial factors; and model 3 includes indicators of the surviving spouse's own risk factors.

Bereaved persons whose late spouse was a current smoker at the baseline interview attribute significantly higher levels of blame to the decedent. The effect size increased considerably when the surviving spouse's own risk behaviors were controlled in model 3 ($b = 2.31$, $p < .05$). Similarly, the effect of the late spouse's exercise level is suppressed; it is not statistically significant in model 1, yet it is large and significant ($b = -.84$, $p < .05$) after the surviving spouse's exercise level is adjusted. Surviving spouses who engaged in higher levels of physical activity at the baseline attribute significantly higher levels of blame to the decedent. Thus, individuals attribute blame to those who engage in unhealthy practices and spare from blame those who engage in health-enhancing practices, yet the strong effects are evident only when the survivor's own health practices are controlled. This suppression effect partly reflects the high levels of concordance in spouses' health behaviors; more than 60 percent of the spouses of now-deceased smokers have ever smoked themselves, and spouses' exercise frequency scores are modestly correlated ($r = .40$).

**TABLE 1. Summary of Means (or Proportions) and Standard Deviations for All Independent Variables, Changing Lives of Older Couples Study (*N* = 210)**

| | Mean | SD |
|---|---|---|
| *Dependent Variables* | | |
| Anger, 18 month follow-up (standardized) | 0 | 1.0 |
| Yearning, 18 month follow-up (standardized) | 0 | 1.0 |
| *Independent Variables* | | |
| Death Attribution | | |
| Perceived Level | | |
| Spouse did not contribute | .63 | |
| Spouse contributed, a little | .12 | |
| Spouse contributed, somewhat | .12 | |
| Spouse contributed, a great deal | .12 | |
| Perceived Cause | | |
| Spouse contributed: health behaviors | .26 | |
| Spouse contributed: health care | .06 | |
| Spouse contributed: stressful lifestyle | .09 | |
| Other Contributor | | |
| Bereaved spouse (respondent) contributed | .01 | |
| Friend or relative contributed | .04 | |
| Employer/coworkers contributed | .03 | |
| Physician or hospital contributed | .07 | |
| Deceased Spouse Risk Factors | | |
| Body mass index (BMI), baseline | 25.74 | 4.78 |
| Current smoker, baseline | .17 | |
| Former smoker, baseline | .51 | |
| Potential Confounding Variables | | |
| Depressive symptoms, baseline (standardized) | 0 | 1.0 |
| Anxiety, baseline (standardized) | 0 | 1.0 |
| Self-rated health, baseline (1=excellent; 5 = poor) | 2.88 | 1.06 |
| Cause of Spousal Death | | |
| Heart disease | .44 | |
| Cancer | .33 | |
| Stroke | .09 | |
| Other illness/condition | .27 | |
| Demographic Characteristics | | |
| Age | 70.55 | 6.94 |
| Black | .15 | |
| Female | .72 | |
| Education (in years) | 11.27 | 2.92 |
| Natural log of income | 1.32 | .52 |
| Own home, baseline (1 = yes) | .92 | |
| Psychosocial Factors | | |
| Marital quality, baseline (standardized) | 0 | 1.0 |
| Religious coping, baseline (standardized) | 0 | 1.0 |
| External locus of control, baseline (standardized) | 0 | 1.0 |
| Surviving Spouse's Risk Factors | | |
| Body mass index (BMI) | 26.48 | 6.03 |
| Exercise frequency (standardized) | –.11 | .97 |
| Current smoker (baseline) | .13 | |

*Notes:* Deceased spouse health risk characteristics were reported by decedent, at the baseline (pre-loss) interview. The valid *N* for the late spouse-reported characteristics is 100.

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Survivors of a spouse's cancer death attribute significantly higher levels of blame to the decedent, relative to persons whose spouse died from other causes. Women attribute significantly more blame than men (b = 1.45, $p < .05$) after their own risk factors were controlled; this effect persisted in supplementary analyses when indicators of spousal caregiving were controlled (results not shown). This pattern may reflect the fact that married women typically take responsibility for maintaining both partners' health, and may be more attentive to the personal consequences of poor health behaviors (Umberson 1992).

Persons in higher quality marriages (b = –1.33, $p < .01$), those who rely heavily on religious coping (b = –1.39, $p < .01$), and those who perceive that life events are out of one's

**TABLE 2. Ordinal Regression Predicting Belief that One's Spouse Contributed to Own Death, at Six-Month Follow-up ($N$ = 100)**

| | Model 1 | Model 2 | Model 3 |
|---|---|---|---|
| *Deceased Spouse Risk Factors* [a] | | | |
| Body Mass Index (BMI) | –.02 | –.012 | –.046 |
| | (.05) | (.06) | (.06) |
| Current smoker | 1.74* | 1.82* | 2.31* |
| | (.80) | (.89) | (.97) |
| Former smoker | .69 | .38 | .35 |
| | (.64) | (.73) | (.79) |
| Exercise frequency (standardized) | –.24 | –.45 | –.84* |
| | (.34) | (.38) | (.42) |
| *Potential Confounding Variables* | | | |
| Depressive symptoms, baseline (standardized) | .091 | –.15 | –.14 |
| | (.35) | (.39) | (.41) |
| Anxiety, baseline (standardized) | .40 | .94* | .94* |
| | (.34) | (.38) | (.39) |
| Self-rated health, baseline (1= excellent; 5 = poor) | .08 | –.10 | –.34 |
| | (.25) | (.28) | (.32) |
| *Cause of Spousal Death* | | | |
| Heart disease | .60 | .42 | .54 |
| | (.58) | (.62) | (.65) |
| Cancer | .74 | 1.41* | 1.64* |
| | (.65) | (.70) | (.74) |
| Stroke | .68 | .33 | –.54 |
| | (1.02) | (1.13) | (1.13) |
| *Demographic Characteristics* | | | |
| Age | .01 | .069 | .06 |
| | (.04) | (.043) | (.05) |
| Black | .55 | 1.34* | 1.08 |
| | (.58) | (.68) | (.75) |
| Female | .50 | .91 | 1.45* |
| | (.57) | (.63) | (.73) |
| Education (in years) | .11 | .07 | .03 |
| | (.09) | (.11) | (.12) |
| Natural log of income | .74 | .93 | .85 |
| | (.55) | (.64) | (.66) |
| Own home, baseline (1 = yes) | .96 | .68 | 1.31 |
| | (.93) | (.98) | (1.09) |
| *Psychosocial Factors* | | | |
| Marital warmth, baseline (standardized) | | –1.23** | –1.33** |
| | | (.44) | (.46) |
| Religious coping, baseline (standardized) | | –1.07** | –1.39*** |
| | | (.35) | (.38) |
| External locus of control, baseline (standardized) | | –.81* | –.91** |
| | | (.33) | (.35) |
| *Surviving Spouse's Risk Factors* | | | |
| Body mass index, baseline (BMI) | | | .12* |
| | | | (.05) |
| Exercise frequency, baseline (standardized) | | | .972** |
| | | | (.35) |
| Currently smokes, baseline | | | -.70 |
| | | | (.89) |
| Months between baseline and six-month follow-up interviews | –.013 | .002 | .014 |
| | (.014) | (.015) | (.02) |
| Threshold, 1 | 5.59 | 10.27 | 12.02 |
| | (3.89) | (4.55) | (4.87) |
| Threshold, 2 | 6.26 | 11.09 | 12.95 |
| | (3.90) | (4.58) | (4.89) |
| Threshold, 3 | 7.25 | 12.27 | 14.35 |
| | (3.92) | (4.61) | (4.94) |
| Model $\chi^2$; d.f. | 16.56; 17 | 36.0; 20 | 47.86; 23 |
| Nagelerke pseudo $R^2$ | .18 | .36 | .45 |

*Notes:* Unstandardized parameter estimates and standard errors are presented. Outcome values range from 1 ("not at all") to 4 ("a great deal").
† $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.
[a] Deceased spouse characteristics were reported by the bereaved respondent's late spouse at the baseline (pre-loss) interview.

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control (b = –.91, $p < .01$) reported significantly lower levels of spousal blame. Overall, the results suggest that individuals rely on a "secular morality" and attribute blame to those violating the edict of self-care, yet these attributions also are shaped by more general world views and one's relationship with the individual who is violating the edict of self-care.

### *The Psychological Consequences of Death Blame*

The final objective is to explore prospectively whether death blame affects the surviving spouse's emotional adjustment to loss. Tables 3 and 4 present results from OLS regression models predicting yearning and anger at the 18-month follow-up, respectively. I assessed separate models evaluating the effects of three sets of death blame indicators: (1) the extent to which one holds one's spouse responsible; (2) the reason why one holds the late spouse responsible; and (3) other persons one holds responsible for the death. The *level* of spouse blame was not a significant predictor of psychological adjustment, in either unadjusted or adjusted models. The *reason* for spousal blame was a significant predictor of yearning, and *other blame* was a significant predictor of anger, thus I present and discuss only these models.[8]

*Yearning.* Table 3 shows that bereaved older adults who say that their spouse's stressful lifestyle contributed to the death, or that their spouse did not comply with his or her health care regimen, report significantly lower levels of yearning for their late spouse. However, these effects are fully mediated by marital quality. When cause of death is controlled (model 2), widows and widowers who believe that their spouse did not adhere to appropriate health care regimens report yearning scores that are .7 standard deviations lower than survivors who say that their spouse did not contribute to his or her own demise. Similarly, those who say that their late spouse had a stressful lifestyle report yearning scores that are nearly one-half standard deviation lower (although this effect is only marginally significant). Marital quality is a significant predictor of yearning (b = .23, $p < .05$), and it accounts for the significant negative association between blame and yearning. Widows and widowers whose spouses died of either cancer or heart disease report significantly more yearning; this could reflect the fact that long-term chronic illnesses are associated with prolonged dying and, consequently, heightened yearning (Carr et al. 2001).

*Anger.* The results in Table 4 show that only one attribution for spousal death is a significant predictor of survivors' anger 18 months after loss. Bereaved persons who say that health care providers contributed to the death report anger levels that are .6 standard deviations higher than persons who believe that no one contributed to the death, and this effect persists net of cause of death and psychosocial factors. Demographic and psychosocial factors also are associated with anger. Age is inversely related to anger symptoms. Women report significantly less anger than men, and blacks report significantly less anger than whites, although the latter effect is partially mediated by psychosocial factors, especially religious coping. Persons who report higher levels of religious coping evidence significantly fewer anger symptoms, while persons who have higher levels of external control report significantly more symptoms, perhaps reflecting frustration over their inability to make sense of the loss.

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## DISCUSSION

This study is among the first to document the specific ways that older bereaved adults attribute responsibility for a late spouse's death, and the ways that death blame affects anger and yearning symptoms 18 months after spousal loss. The analyses yielded three main findings. First, a statistical minority of older adults (37%) hold their spouses responsible for their deaths, and a very small proportion believe that other relatives, coworkers, or health care providers contributed to the death. Second, the belief that one's late spouse is partly responsible for the death is strongly related to risk behaviors of both the decedent and surviving spouse, as well as more general world views of the survivor. Third, death blame is associated with emotional reactions to loss in only a limited set of scenarios; anger is associated with the belief that a health care provider contributed to the death, while yearning is associated with the belief that the decedent's stressful lifestyle and lack of compliance with physician's orders contributed to the death. However, the latter finding is no longer statistically significant after marital quality is controlled.

**TABLE 3. OLS Regression Predicting Yearning among Bereaved Spouses at 18-Month Follow-up (*N* = 155)**

| | Model 1 | Model 2 | Model 3 |
|---|---|---|---|
| *Blame Attribution* | | | |
| Spouse, health behaviors | .15 | .083 | .16 |
| | (.19) | (.19) | (.19) |
| Spouse, health care | –.59† | –.70* | –.49 |
| | (.33) | (.34) | (.35) |
| Spouse, stressful lifestyle | –.37 | –.45† | –.36 |
| | (.27) | (.26) | (.28) |
| *Potential Confounding Variables* | | | |
| Depressive symptoms, baseline (standardized) | .062 | .049 | .10 |
| | (.10) | (.099) | (.11) |
| Anxiety, baseline (standardized) | .047 | .053 | .041 |
| | (.10) | (.10) | (.10) |
| Self-rated health, baseline(1 = excellent; 5 = poor) | –.093 | –.05 | –.04 |
| | (.08) | (.08) | (.08) |
| *Demographic Characteristics* | | | |
| Age | .010 | .013 | .002 |
| | (.012) | (.012) | (.013) |
| Black | –.09 | –.06 | –.083 |
| | (.24) | (.24) | (.26) |
| Female | –.10 | –.14 | –.19 |
| | (.20) | (.19) | (.21) |
| Education (in years) | –.037 | –.017 | –.019 |
| | (.03) | (.03) | (.034) |
| Natural log of income | –.26 | –.23 | –.28 |
| | (.18) | (.18) | (.18) |
| Own home, baseline (1 = yes) | .38 | .38 | .47 |
| | (.32) | (.31) | (.32) |
| *Cause of Death* | | | |
| Heart disease | | .42* | .44* |
| | | (.19) | (.19) |
| Cancer | | .41* | .41* |
| | | (.20) | (.20) |
| Stroke | | –.29 | –.26 |
| | | (.30) | (.30) |
| *Psychosocial Factors* | | | |
| Marital warmth, baseline (standardized) | | | .23* |
| | | | (.11) |
| Religious coping, baseline (standardized) | | | .040 |
| | | | (.09) |
| External locus of control, baseline (standardized) | | | .089 |
| | | | (.087) |
| Months between baseline and six-month follow-up interviews | .009 | .009 | .007 |
| | (.006) | (.006) | (.006) |
| Constant | –.196 | –1.00 | –.20 |
| | (1.12) | (1.15) | (1.20) |
| Adjusted $R^2$ | .02 | .055 | .066 |

*Notes:* Unstandardized regression coefficients and standard errors are presented.
† $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

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### *A Reluctance to Cast Blame*

Bereaved older adults are far more likely to hold a late spouse accountable for his or her own death than they are to blame themselves, health care providers, friends, family members, or coworkers. More than one-third of study participants say that their late spouse contributed at least "a little" to his or her own death, yet only a handful of respondents pointed blame at others. The reluctance to hold others (or oneself) responsible for the death may reflect social desirability pressures (Hyman 1975). Bereaved spouses may be reluctant to acknowledge that they view themselves or their spouses as responsible for the death, in an effort to appear "moral" and to construct a narrative whereby the death was inevitable and could not have been prevented.

Similarly, bereaved spouses may be reluctant to acknowledge inappropriate behavior on the

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