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Death of Parents and Adult Psychological and Physical Well-Being: A Prospective U.S. National Study

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Abstract

Guided by a life course perspective, attachment theory, and gender theory, this study aims to examine the impact of death of a father, a mother, or both parents, as well as continuously living with one or both parents dead (in contrast to having two parents alive) on multiple dimensions of psychological well-being (depressive symptoms, happiness, self-esteem, mastery, and psychological wellness), alcohol abuse (binge drinking), and physical health (self-assessed health). Analyses of longitudinal data from 8,865 adults in the National Survey of Families and Households 1987–1993 reveal that a father's death leads to more negative effects for sons than daughters and a mother's death leads to more negative effects for daughters than sons. Problematic effects of parent loss are reflected more in men's physical health reports than women's. This study's results suggest that family researchers and practitioners working with aging families should not underestimate the impact of filial bereavement on adult well-being.

Keywords

bereavement; parent death; psychological well-being; depression; health

With increased contemporary life expectancy in most developed countries, it is most typical now for individuals to experience the death of parents during adulthood rather than childhood (Watkins, Menken, & Bongaarts, 1987; Winsborough, Bumpass, & Aquilino, 1991).

Therefore, most adults have longstanding life course attachment ties and affectional bonds with their parents both as children and adults before the death of first one parent, and then the second parent, occurs. The death of parents is a typical life course transition for adults, yet surprisingly little research has examined the impact of parent loss during adulthood on psychological and physical well-being.

Previous research has indicated that parent loss in childhood is associated with significant problematic consequences (Bowlby, 1980; Harris, 1995) and that loss of other significant family members during adulthood, such as a spouse or child, is associated with significant negative effects on well-being (Genevro, Marshall, & Miller, 2004). Thus, it is surprising that filial bereavement and its potential consequences for adult well-being have not received more systematic research attention. The overall aim of this study was to contribute to a population

perspective on the impact of death of a mother, death of a father, death of both parents, and living without one or both parents alive (in contrast to having both parents alive) on adults' psychological well-being and physical health by examining this issue with a prospective design, using data from a U.S. national sample. We also sought to better understand how gender influences the effects of parental death on adults.

Theoretical Background

From Isolated Nuclear Families to Life Course Intergenerational Attachments

Guiding theoretical paradigms have a considerable impact on which issues and factors are given scholarly attention and which are not. In American family studies, the dominance of Talcott Parsons's (1943) theory of kinship in modern societies, which was part of his overall structural-functionalist model, may have contributed to the relative scarcity of attention to parental loss and its impact on adults. Parsons posited that at the time of marriage, it is most functional for adults in modern societies to largely disconnect from their parents and to focus on their own relatively autonomous nuclear households (Parsons, 1943). Parsons's theory about adult autonomy from parents also was congruent with the dominant developmental theory of his period—Freudianism—which also emphasized the importance of autonomy from parents for healthy adults (Freud, 1920/1965). However, contrary to supporting what Parsonsian theory might predict, research in the United States during the past 40 years has refuted the idea that Americans radically disconnect from or abandon their parents, married or not (Bengtson, Rosenthal, & Burton, 1990; Cooney & Uhlenberg, 1992; Eggebeen & Hogan, 1990; Rossi & Rossi, 1990; Shanas et al., 1968; Spitz & Logan, 1992).

Although coresidence with older parents is not very prevalent at any point in time in the United States, research guided by a life course approach to intergenerational relationships has demonstrated that significant contact and exchange with living parents continues for the vast majority of American adults throughout adulthood (Rossi & Rossi, 1990). As families become more vertical (i.e., more typically comprising persons from three or more generations) and less horizontal (i.e., more typically comprising fewer persons from the same generation, such as siblings and cousins) in structure, continuing relations across generations and interdependency across generations is becoming even more common and important to adults (Bengtson, 2001; Bengtson et al., 1990; Cooney & Uhlenberg, 1992; Eggebeen & Hogan, 1990; Rossi & Rossi, 1990), and relationship quality with adult parents continues to influence the well-being of adult children (Amato & Afifi, 2006; Barnett, Kibria, Baruch, & Pleck, 1991; Barnett, Marshall, & Pleck, 1992; Umberson, 1992).

Mothers continue to provide a range of financial, emotional, and instrumental support to daughters and sons across the adult years (Cooney & Uhlenberg, 1992; Eggebeen & Hogan, 1990; Rossi & Rossi, 1990). Beginning in early adulthood, there is also a considerable amount of reciprocity in the relationship—especially in emotional and instrumental support. It is only after mothers become relatively older—typically in their 60s or 70s—that adult children are more likely to provide more support to mothers than they continue to receive (Rossi & Rossi, 1990). Thus, mothers often remain a critical social resource to daughters and sons through early adulthood and into middle age.

Fathers, too, have an important influence on women's and men's lives and through their multifaceted roles as care providers, companions, spouses to mothers, protectors, models, moral guides, teachers, and breadwinners in families (Lamb, 1997b). Although there is controversy regarding whether biology predisposes women to be more optimally equipped for nurturant parenting than men (Rossi, 1984), considerable research has suggested there is nothing about the biological makeup of fathers that prevents them from becoming a critical

secondary (or even primary) attachment figure for infants (Lamb, 1997a). Research has confirmed that most infants do become attached to their fathers (Lamb, 1997a).

In recent years, the literature on caregiving for older parents has suggested that concepts from attachment theory may continue to be relevant for adults in relationship to their aging parents. Bowlby's (1969, 1973, 1979, 1980) theory of lifespan attachment emphasizes humans' intrinsic biosocial propensity to seek security through connection with others in the face of a challenging outside world environment. Attachment theory posits that in the early months of life, infants seek a feeling of security (which is also the basis for courage to explore the world) through a responsive, dependable affectional bond that is established with one primary person—the “primary attachment figure,” who in most cultures has been the mother. Because of the importance of the attachment figure to the child, there is a considerable motivation by the child to “protect” the attachment figure.

Empirical work guided by attachment theory has confirmed that mothers tend to be the primary attachment figure for children but that, as noted previously, significant attachments have been found to also develop with fathers (Lamb, 1997a). Furthermore, considerable empirical research has now confirmed that different mental models regarding attachment exist in adults as well as children (Feeney & Noller, 1990; Hazan & Shaver, 1987; Simpson, 1990) and that these attachment models are associated with retrospective accounts of childhood relationships with mothers and fathers (Hazan & Shaver, 1987).

Cicirreli (1983, 1991, 1993) has suggested that continued adult attachment may help to motivate care giving for parents—as adult daughters and sons seek to protect their primary attachment figures, in part, to help them maintain the sense of emotional security that comes from having attachment figures alive and available for support. Attachment theory might also lead us to hypothesize that continued adult attachment to parents would also lead to a decline in well-being on loss of a parent to death in adulthood. Adults who have two parents alive, and therefore who have two primary affectional/attachment bond figures alive in their lives, might be expected to have a well-being advantage in adulthood that has been previously underestimated.

A family life course perspective (Bengtson & Allen, 1993) guides us to consider the importance of “linked lives” for influencing well-being across the life course (Elder, 1998; Elder, Johnson, & Crosnoe, 2003). It also guides us to pay attention to important life transitions and the quality of lifelong histories with relational partners when considering the well-being impact of a life transition (George, 1993).

Attachment bonds with mothers and fathers typically date from birth. Yet all intergenerational dyad bonds are not the same. Gender theorists like Chodorow (1978) have suggested that children are socialized from an early age to identify with their same-gender parent and thereby create somewhat more distance from the opposite-gender parent. We find this theoretical orientation validated by the empirical evidence that the mother-daughter intergenerational bond is characterized by the greatest closeness of all gender dyad generational bonds (Fingerman, 2001; Hagestad, 1987; Rossi & Rossi, 1990) and that fathers and sons show evidence of complex relationships that involve more “sharing of a life world” than fathers and daughters do (Nydegger & Mitteness, 1996). Mother-daughter patterns of closeness intensify with aging, as mothers and daughters assume together more of the responsibility for “kinkeeping”—that is, working to maintain and nurture ties to the generations below and above them (Fingerman, 2001) as well as ties with horizontal kin members (e.g., spouse, siblings, cousins, brothers- and sisters-in-law).

Part of the responsibility for family ties includes the responsibility for caregiving for family members who are not able to take full care of themselves. Increasingly, contemporary older

adults are not dying suddenly from acute illnesses (e.g., infections) but are instead experiencing longer periods of chronic disease and chronic disease management with functional limitations prior to death (Pol & Thomas, 1992). This phenomenon has led to an increasing need for caregiving for older parents among contemporary cohorts of young and midlife adults. The 2003 *Caregiving in the U.S. Study* (2004) found that 21% of a national sample of adults indicated they were providing some degree of help to a person more than 18 years of age who had some functional limitation; more than one third of caregivers in this study noted providing caregiving support to a parent (28% to a mother, 8% to a father).

Overall, women tend to assume a caregiving role for a parent more than men (*Caregiving in the U.S.*, 2004; Marks, 1996a; Stone, Cafferata, & Sangl, 1987), and women doing family caregiving tend to report greater problematic effects in this role (Yee & Schulz, 2000). Research suggests these gendered effects are likely due to the fact that caregiving women tend to be exposed to greater caregiving demands (e.g., spending more time on caregiving, helping with more intense day-to-day tasks and personal care), they are more likely to be the primary caregiver and experience more role stains in combining the caregiver role with other roles, they receive less informal assistance in care giving from others, and they are less likely to engage in preventive health behaviors than comparable caregiving men (Yee & Schulz, 2000). There does seem some same-gender preference in caregiving (Lee, Dwyer, & Coward, 1993), such that if a father needs care, a son may be enlisted in caregiving. We might expect that many adult children who lose a parent to death have participated in some challenging caregiving close to the time of death, and this factor, too, may contribute to the negative effects on mental and physical health that we might expect derive from the loss of a parent to death.

The life course perspective also emphasizes the importance of “generational time” as a factor in development and well-being (Bengtson & Allen, 1993). Generational time refers to one’s lineage placement and how this connects with responsibilities, entitlements, developmental challenges, and developmental constraints. In the case of parent death, a major transition in generational placement occurs: An adult child often must transition to becoming the standard bearer for the family as the “oldest” generation in the family, and with the assumption of this new generational role comes additional responsibilities to family members that might previously have accrued to the parental generation (Petersen & Rafuls, 1998). We might expect that the experience of generational transition may be most acute when a same-gender parent dies.

There is some related additional evidence suggesting that adult children experience a sense of their own aging and potential challenges of aging in watching their parents’ changing health. Rakowski, Barber, and Seelbach (1983) found that young adult respondents who rated the health of their parents more poorly were also found to report greater anxiety about their own aging and less positive views of friends’ and peers’ aging. In a related vein, Barrett (2003) found that adults who rated their parents’ health more poorly reported older subjective age identities than adults who rated their parents’ health more favorably. Therefore, we might also expect that watching a parent or parents die might also affect adults’ well-being through its impact on increasing concerns about their own aging and health. This impact might be especially acute in the case of a same-gender parent, where identification is strongest. Moving into the role of generational leadership for the family (along with the loss of former support and leadership this also implies) may also be accompanied by increased concern and stress and lead to problematic effects on well-being for individuals losing a parent (or parents) to death.

Psychological Well-Being and Physical Health Status as Multidimensional Constructs

Psychological well-being has increasingly been conceptualized and operationalized as a multidimensional construct, including both hedonic components and eudaimonic components (Keyes, Shmotkin, & Ryff, 2002; Ryan & Deci, 2001). Hedonic approaches to conceptualizing

well-being emphasize well-being to be a state in which individuals experience maximum amounts of pleasure and minimal levels of pain (Kahneman, Diener, & Schwarz, 1999), whereas eudaimonic approaches conceptualize well-being, as live actualization of human potentials and optimal psychosocial functioning and engagement with life (Waterman, 1993).

Assessments of negative affect (e.g., psychological distress) and positive affect (e.g., global happiness) are the most common operationalizations of hedonic well-being. Assessments of self-evaluation (e.g., self-esteem, personal mastery) and other adult development theory-derived outcomes articulated by Ryff (1989; e.g., personal growth, purpose in life, environmental mastery, autonomy, positive relations with others, self-acceptance) are the most typically considered eudaimonic outcomes examined.

Although alcohol abuse has not been typically included in psychologists' psychometric evaluations and conceptualizations of dimensions of psychological well-being, there has been increased use of measures of alcohol use as an alternative "functional equivalent" measure of psychological distress, with the rationale that this measure may better measure psychological distress for men than typical inventories of depression symptoms (e.g., Simon, 2002; Umberson & Chen, 1994).

Similar to psychological well-being, physical health status has been found to be usefully considered as a multidimensional construct, including related yet distinct dimensions of health perceptions, functional status, symptoms and diseases, mortality, and opportunities for activity (Patrick & Bergner, 1990; Patrick & Erikson, 1993). Health perceptions (most typically measured by a single item for self-assessed health) have been found to be a particularly robust and important dimension of physical health. Across numerous studies and countries, self-assessed health has been found to be an important predictor of mortality, even above and beyond physician's reports of health (Idler & Benyamini, 1997).

In this study, given the relative scarcity of research on the impact of parental death on adult children, we took an expansive approach to examining well-being outcomes. We investigated both hedonic well-being (depressive symptoms and happiness) and eudaimonic well-being (self-esteem, personal mastery, and psychological wellness—a composite measure of Ryff's eudaimonic well-being scales). We evaluated self-assessed health as an important dimension of physical health status. We also included a measure of binge drinking to evaluate an alternative pathway of expression for psychological distress (or negative affect), which might be particularly relevant for men.

Empirical Background

The few scholars who have examined parent loss and adult well-being have provided evidence that parental death is associated with some negative effects. Most of the literature on this topic is clinically based, using small nonrepresentative samples of persons who are recruited for study only after a parent loss has occurred. The clinical literature that has examined this issue has suggested that grief reactions after a parent's death can lead to depression, thoughts of suicide, and other psychiatric problems (Birtchnell, 1975; Horowitz et al., 1981; McHorney & Mor, 1988; Sanders, 1979–1980).

Moving beyond a clinical approach, Scharlach (1991) examined initial and residual grief reactions among a convenience sample of 220 adults, ages 36 to 60, recruited through a notice in *The Los Angeles Times*, who experienced the death of a parent within the past 5 years. His results suggested that bereaved adult children report a wide range of initial symptoms related to parent death, including difficulties sleeping and working and getting along with certain people; residual reactions included becoming upset when thinking about the parent, finding it painful to recall the parent's memory, inability to avoid thinking about the parent, and crying

when thinking about the parent. Sharlach did not find differences in initial or residual grief reactions to mothers in contrast to fathers.

Moss, Moss, Rubinstein, and Resch (1993) evaluated responses from 102 daughters 40 to 65 years old who had recently experienced the death of a mother. They found substantial evidence of depression, grief, and somatic reactions, but they also found considerable heterogeneity in responses that was associated with differential characteristics of the daughter, mother, and quality of their relationship. In additional research, Moss, Resch, and Moss (1997) examined gender differences in response to death of a last surviving parent and found that overall, daughters reported more upset and somatic responses than sons.

The only previous prospective population study of psychological and physical health outcomes associated with parental death was undertaken by Umberson and Chen (1994), who used a U.S. national sample study (Americans' Changing Lives) to examine parent loss during a 3-year survey interval. These researchers found that loss of a mother (in contrast to no such loss) was associated with a greater increase in psychological distress over time for daughters and sons, although additional moderator analyses suggested this effect was not global across all subgroups. Specifically, sons who lost functionally impaired mothers to death experienced more increase in distress than sons who lost unimpaired mothers, whereas daughters whose unimpaired mothers died experienced more increase in distress than daughters who lost impaired mothers to death. Sons who recalled mental health problems of fathers in childhood also reported a greater increase in psychological distress on the death of a father than did other sons or daughters.

In terms of alcohol consumption (measured as number of drinks), Umberson and Chen (1994) found that father's death was associated with a greater increase in alcohol consumption over a period of 3 years than not experiencing a father's death—particularly among daughters who recalled family violence or who continued frequent contact with fathers and sons who recalled a father's drinking problem in childhood. These scholars also found evidence that the death of either a father or mother (in contrast to not experiencing a parent death) contributed to a greater decline in ratings of physical health over time across the entire sample of men and women.

Umberson (2003) also followed up this quantitative research with qualitative interviews of persons who had experienced the loss of a parent. These interviews are even more striking in providing evidence of the major life change that a parental loss can provoke. Most of the people she interviewed spoke about how dramatic this change was and how those who had not experienced this yet just did not understand what they were going through. Respondents remarked on how little place has been made for expression of filial grief in contemporary American society (a theme also replicated in Klapper, Moss, Moss, & Rubinstein's 1994 study of parental death). The qualitative analyses of Umberson's interviews also revealed how the general societal underestimation of the impact of filial bereavement may also lead to marital misunderstanding and marital problems, which has been confirmed by other quantitative analyses on this topic by Umberson (1995).

In this study, we aimed to build on previous clinical work and particularly extend the suggestive population study work of Umberson and Chen (1994) to further examine the issue of parent death and adult well-being. We expanded on Umberson and Chen's study in a number of ways. First, as noted previously, we examined a larger range of psychological well-being outcomes, adding an examination of measures of happiness, self-esteem, personal mastery, and psychological wellness, while including also, as they did, assessments of depressive symptoms (psychological distress), alcohol use, and self-assessed physical health.

Second, we examined as a separate category the well-being impact of losing both parents during a 5-year period. Finally, we added an examination of differences in tire well-being profiles of adults who went through a 5-year adult period with one or both parents dead (but who did not experience additional parent loss during the period) in contrast to adults who continued to have both parents alive during the same period of time.

In sum, our research objectives for this study were to address gaps in the aging and bereavement literatures on parent loss in adulthood and its effects on adult mental and physical health by (a) examining the impact of the loss of either a mother or father, or both, on multiple dimensions of psychological well-being, alcohol abuse, and self-assessed health, and (b) examining gender differences in the effects of parent loss on well-being.

Given typically strong life course attachment ties to both mothers and fathers, we expected that the death of a parent—mother or father, or both, as well as living without one or both parents (in contrast to having both parents alive)—would have a problematic impact on tire psychological and physical well-being of an adult child. Because of the particular closeness and identification associated with same-gender intergenerational dyads, we expected that death of mothers would be associated with more negative impact on well-being outcomes (other than binge drinking) for women in contrast to men and that death of fathers would be associated with more negative impact on well-being outcomes for men in contrast to women.

Given that death of both parents might be expected to particularly place women in a “kinkeeping” role for the entire family, we expected death of both parents to have a more negative impact on the well-being outcomes (other than binge drinking) of women than men. Likewise, given women’s heightened socialization to be responsible for family relationships and attuned to family relationships for their sense of self and well-being (Gilligan, 1982), we expected that women who continuously experienced life during a period of 5 adult years with one or both parents dead (in contrast to having both parents alive) would also experience poorer well-being outcomes (other than binge drinking) than their male peers. Because of previous evidence that alcohol use may be a more sensitive indicator of psychological distress for men than women (e.g., Simon, 2002), we expected loss of one or both parents or living without one or both parents alive (in contrast to having both parents alive) for 5 years would be associated with more binge drinking for men than women.

Method

Data

The data for these analyses came from the first and second waves of the National Survey of Families and Households (NSFH), which includes information from personal interviews conducted in 1987 and 1988 (Time 1, or T1) and in 1992 and 1993 (Time 2, or T2; 5 years later), with a nationally.-representative sample of 13,007 noninstitutionalized American adults, 19 years old and older (because of random sampling in households, a few participants less than 19 years old became primary respondents). This survey included a main sample of 9,643 respondents, with an additional oversample of 3,374 African Americans, Mexican Americans, Puerto Ricans, single parents, stepparents, cohabitators, and recently married persons. The response rate at T1 (1987 and 1988) was 75%. At T2 “(1992 and 1993), the reinterview response rate was 82% of first-wave respondents. This yielded national population coverage at a rate of about 62% (.74 × .82) for data from both waves. Sampling weights correcting for selection probabilities and nonresponse allow this sample to match the composition of the U.S. population on age, sex, and race (see Sweet & Bumpass, 1996; Sweet, Bumpass, & Call, 1988, for more NSFH design details).

The analytic sample for this study consisted of NSFH primary respondents of all ages in 1987 and 1988, who also responded in 1992 and 1993 and who had complete and consistent information about whether their biological or adoptive mothers and fathers were alive or not at both T1 and T2 ($N = 8,865$; 5,459 women, 3,406 men).

Measures

Parent status—Parent status contrasts were classified into five mutually exclusive and exhaustive categories based on respondent reports at both T1 and T2 about whether their mother and father were alive or deceased (see Table 1). Respondents who reported both parents alive at both T1 and T2 were classified as “both alive T1-T2” and used as the reference category in all analyses, respondents who reported their father was alive at T1 but dead at T2 were classified as “father died T2,” respondents who reported their mother was alive at T1 but dead at T2 were classified as “mother died T2,” respondents who reported both parents alive at T1 but reported both parents dead at T2 were classified as “both parents died T2,” and respondents who reported either one parent dead or both parents dead at both T1 and T2 (but no change in death status between waves) were classified as “one or both parents dead T1-T2.”

Well-being outcomes—For assessment of negative affect (psychological distress), we used a 12-item modified version of the Center for Epidemiological Studies Depression (CES-D) index (Radloff, 1977) included at both waves to assess depressive symptoms (e.g., “On how many days during the past week did you feel sad?” T1 and T2 $\alpha = .93$). The logged score of the summed symptom score plus a constant of 1 was used for this measure to help correct for skew to the right (see Table 2 for descriptives for all analytic measures).

Optimal alcohol use is often considered to take a J-curve function—that is, zero consumption is considered potentially somewhat less beneficial than one to two drinks per day, yet binge drinking on any given occasion is always considered problematic. Therefore, we employed a dichotomous measure of binge drinking as an additional indicator of psychological distress in this study. Respondents at T2 of the NSFH were asked, “Have you had any alcoholic drinks during the past 30 days?” If they answered “yes,” they were also queried, “On about how many days did you have five or more drinks on the same occasion during the past 30 days?” If respondents answered one or more to this question, they were coded 1 on binge drinking; respondents answering 0 were coded 0.

Positive affect was assessed with a one-item standard assessment of global happiness asked at both T1 and T2, “Taking things all together, how would you say things are these days?” (1 = *very unhappy*; 7 = *very happy*).

Two assessments of self-evaluation were included. Self-esteem was assessed with a three-item version of Rosenberg’s (1965) self-esteem index (e.g., “On the whole I am satisfied with myself” [1 = *strongly disagree*; 5 = *strongly agree*]; T1 and T2 $\alpha = .63$). We also evaluated a five-item personal mastery index consisting of four items from the Pearlin Mastery Scale (Pearlin, Lieberman, Menaghan, & Mullan, 1981; e.g., “I can do just about anything I really set my mind to” [1 = *strongly disagree*; 5 = *strongly agree*]) along with a single item of control/mastery also assessed at T1 of the NSFH (“I have always felt pretty sure my life would work out the way I wanted it to”; T2 $\alpha = .64$).

To evaluate psychological wellness, we used an 18-item version of Ryff’s psychological wellness assessment (Ryff, 1989; Ryff & Keyes, 1995), which includes three items from each of Ryff’s six scales (all rated 1 = *strongly disagree*; 5 = *strongly agree*) assessing autonomy (e.g., “I judge myself by what I think is important, not by the values of what others think is important”), personal growth (e.g., “For me, life has been a continuous process of learning, changing, and growth”), positive relations with others (e.g., “People would describe me as a

giving person, willing to share my time with others”), purpose in life (e.g., “Some people wander aimlessly through life, but I am not one of them”), and self-acceptance (e.g., “When I look at the story of my life, I am pleased how things have turned out”). Cronbach’s alpha for the 18-item scale was .81.

Global self-assessed health was assessed with a standard one-item measure of health: “Compared to other people your age, how would you describe your health?” (1 = *very poor*; 5 = *excellent*).

For four measures—the CES-D, global happiness, self-esteem, and global health—T1 assessment of the measures were available and were controlled in the respective analyses. For the Personal Mastery Scale, responses to the one item measuring personal mastery that was included at T1 of the NSFH was included as a T1 control (the correlation of this one item at T2 with the other four items of the scale at T2 is .32). The binge drinking assessment and the Ryff measure were not included at T1, so the CES-D assessment from T1 was entered to help control for T1 well-being in all analyses of these measures to better estimate the likely longitudinal change in well-being over time because of loss of parents.

Several demographic statuses—gender, age, race/ethnicity, education, household income, parental status, and employment status—were controlled in all analyses because they are associated with psychological and physical health (Ross, Mirowsky, & Goldstein, 1990) and might have confounded our results. Demographic variables were constructed as follows: gender (1 = *female*), age (T1, in years), race/ethnicity (coded 1 = *non-White* vs. 0 = *non-Hispanic White*), education (T2, in years), household income (continuous measure totaled across all types of earned and unearned income for all household members at T2; respondents missing on income were coded -1 on this continuous variable and maintained in the analyses by simultaneously including a dichotomous “missing on T2 household income” flag variable in all the models), missing on T2 household income (dichotomous flag variable to include all respondents missing on income in the regression analyses, *missing T2 household income* = 1; *not missing T2 household income* = 0), having a child age 18 or younger in the household at T2 (1 = *has child*; 0 = *no child*), and employment status at T2 (1 = *employed*; 0 = *not employed*).

Analytic Sequence

Multivariate Ordinary Least Squares (OLS) or logit regression models were estimated for all analyses using Statistical Package for the Social Sciences. Preliminary analyses included both men and women in models that included gender interaction variables. Specifically, each of the outcomes was regressed on gender, all of the other demographic control variables, the parent status variables, and gender by parent status interaction variables. For five of the seven outcomes, at least one significant gender interaction was found. Therefore, final models were estimated separately for men and women. Models were estimated with both weighted data and unweighted data. The pattern of estimates was relatively similar across both sets of models, and therefore, we report results from the unweighted data where standard errors are expected to be more reliable (Winship & Radbill, 1994).

Results

Gender Differences in Effects of Parent Death on Adults

To test our gender difference hypotheses, we estimated models with gender interactions as noted above (full results not shown; significant gender interactions noted on Table 3). Consistent with our hypothesis that loss of a same-gender parent would be associated with greater negative effects (except for mother loss for women on binge drinking), we found that

loss of a father led to a significantly greater increase in depressive symptoms for men in contrast to women (Female \times Father Died, $b = -0.20, p \leq .05$). Additionally, loss of father was associated with a trend toward lower levels of psychological wellness for men in contrast to women (Female \times Father Died, $b = 1.34, p \leq .10$).

Consistent with our hypothesis that loss of both parents would be associated with more negative effects for women than for men, we found that loss of both parents was associated with a greater decrease in positive affect (happiness) for women in contrast to men (Female \times Both Parents Died, $b = -0.61, p \leq .05$). Also, as predicted, having one or both parents dead across this entire 5-year period, in contrast to having both parents alive, was associated with a greater decline in global happiness among women (Female \times One or Both Dead T1-T2, $b = -0.12, p \leq .05$) and lower reported levels of personal mastery among women (Female \times One or Both Dead T1-T2, $b = -0.32, p \leq .05$).

Contrary to our hypothesis, loss of both parents was associated with a trend toward a greater decrease in self-assessed health for men in contrast to women (Female \times Both Parents Died, $b = 0.24, p \leq .10$).

Overall, these results were somewhat supportive of our hypotheses, although it is also important to note that many hypothesized gender differences did not emerge in the gender-combined analyses. Our findings do suggest that it is valuable to evaluate multiple dimensions of mental and physical well-being to get a more complete understanding of gender differences in the impact of death of parents.

Effects of Parent Loss on Psychological and Physical Well-Being for Daughters and Sons Considered Separately

Table 3 provides estimates from regression models estimated separately for women and men. These results provide us with a more detailed within-gender account of the effects of parent loss on mental and physical health. Although not absolutely consistent, our findings provide considerable support for our hypothesis that parent loss is associated with poorer psychological and physical well-being in comparison to continuing to have both parents alive.

Among women, loss of a father during a 5-year period (in contrast to continuing to have both parents remain alive) was associated with a lower level of personal mastery and a trend toward a lower level of psychological wellness. Among men, loss of father (their same-gender parent) was associated with even more problematic effects on psychological well-being—a greater increase in depressive symptoms, a lower level of personal mastery, a trend toward a greater decrease in self-esteem, and a lower level of psychological wellness.

Loss of a mother among women (their same-gender parent) was associated with greater odds of binge drinking, a trend toward a greater decline in global happiness, a greater decline in self-esteem, a lower level of personal mastery, and a lower level of psychological wellness. Men who reported loss of their mother also reported a greater decline in global happiness, a lower level of psychological wellness, and a greater decline in self-rated health than men who continued to have both parents alive.

Loss of both parents among women was associated with several significant negative effects, including a greater increase in depressive symptoms, a greater decline in happiness, a greater decline in self-esteem, a lower level of personal mastery, and a lower level of psychological wellness. Among men, loss of both parents led to greater odds of binge drinking, a greater decline in self-esteem, a lower level of personal mastery, a lower level of psychological wellness, and a greater decline in self-rated health.

It is interesting that our additional contrast of persons who did not have a new loss during the 5-year interval but who continued life with one or both parents dead in contrast to having both parents alive during a period of 5 adult years provided additional support for the hypothesis that having both parents alive is a well-being advantage for adults. Both women and men who had one or both parents dead reported a greater increase in depressive symptoms (trend-level effect for men), a greater decline in self-esteem (trend-level effect for men), and a greater decline in self-rated health (trend-level effect for women) during this 5-year period. Women in this parent loss status also reported a greater decline in global happiness, a lower level of personal mastery, and a lower level of psychological wellness.

Discussion

Guided by a life course perspective, attachment theory, and gender theory, this study aimed to examine the impact of the death of parents on multiple dimensions of psychological well-being as well as self-assessed health among adults and to examine gender differences in the effects of parent loss on well-being. We hypothesized that loss of a father or mother or both as well as living with one or both parents dead during a 5-year period (in contrast to having both parents alive) would be associated with greater declines or lower levels of psychological and physical well-being. We also hypothesized that because of gender socialization to identify with the same-gender parent and intergenerational family relationship patterns, men would experience more problematic effects from death of a father on all well-being outcomes, and women would experience more problematic effects from death of a mother, death of both parents, or life without both parents alive on well-being outcomes other than binge drinking. We expected any type of loss of parents studied to lead to a more problematic impact on binge drinking for men than women.

Overall, we found considerable evidence supporting the idea that because of long-term linked lives across time and because of the typically strong affectional bonds and attachment experienced with mothers and fathers, the death of a mother or father or both in adulthood is associated with a number of negative effects on mental and physical well-being. We also found partial support for our gender hypotheses. Between-gender and within-gender analyses across multiple dimensions of well-being allowed us to see that the effects of loss came through in somewhat different ways for women and men.

Specifically, our results suggest that death of a father may have a more negative effect on sons in contrast to daughters. Death of a father led to less personal mastery for both daughters and sons. But loss of a father was also associated with a greater increase in depressive symptoms and lower psychological wellness for sons.

Our results also suggest that death of a mother may have somewhat more problematic effects on daughters in contrast to sons. Death of a mother was associated with lower levels of psychological wellness for both daughters and sons. But loss of a mother for daughters was also associated with greater odds of binge drinking, a greater decline in self-esteem, and a lower level of personal mastery. Loss of a mother was also associated with a greater decline in happiness for sons.

Death of both parents within a 5-year period is not exceptionally common, but it still occurs frequently enough to take seriously (about 1 out of every 100 of our national respondents experienced this sequence of events during a 5-year period). We predicted that loss of both parents would be more problematic for women than for men; however, death of both parents was associated with negative effects for both daughters and sons relatively equally. Both daughters and sons experiencing the death of both parents reported greater declines in self-esteem, lower levels of mastery, and lower levels of psychological wellness. Daughters

additionally reported a greater increase in depressive symptoms and a greater decline in happiness. Sons additionally reported significantly higher odds of binge drinking and a greater decline in health.

A new contribution of this study is our finding that living 5 adult years with one or both parents dead in contrast to having both parents alive is associated with poorer well-being outcomes. Women without having experienced a recent parent loss, women with one or both parents dead reported a greater increase in depressive symptoms, a greater decline in global happiness, a greater decline in self-esteem, a lower level of personal mastery, and a lower level of psychological wellness when contrasted with their women peers who continued to have both parents alive during the 5-year period studied.

Among men, the most robust evidence of the well-being impact of having one or both parents dead in contrast to having both alive came through their reports of a greater decline in self-assessed physical health over 5 years (in contrast to their male peers who had both parents alive). Overall, our results suggest that having one or both parents dead in contrast to having both parents alive is associated with generally poorer psychological well-being over time for women and poorer physical health over time for men. This pattern of findings also supported our hypothesis that having one or both parents dead would be more problematic for the well-being of daughters in contrast to sons.

Our results are partly congruent with those of Umberson and Chen (1994), who did a somewhat similar analysis across a 3-year timeframe. Similar to their results, we also found that loss of a mother led to a greater decline in sons' health over time. However, we did not find the same association between loss of father and greater increase in alcohol consumption as measured by number of drinks. By contrast, we used a measure of binge drinking and found that it was loss of mother that led to more binge drinking among women (contrary to expectation) and loss of both parents that led to more binge drinking among men. In subgroup analyses, Umberson and Chen found that it was mainly certain subgroups of men that experienced a greater increase in psychological distress over time because of a loss of mother. We found that living with one or both parents dead (in contrast to living with both parents alive) or having both parents die led to a greater increase in psychological distress for women and that loss of father led to a greater increase in psychological distress for men.

The inconsistency in our results may be due to the fact that we had a slightly different timeframe for analysis—3 versus 5 years. Additionally, we set up our contrast groups somewhat differently (we included a “both parents died” group and used “both parents alive” as the reference group). Our measure of alcohol consumption was also different—emphasizing binge drinking in contrast to a linear number of drinks. Umberson and Chen (1994) also looked at various two-way and three-way interactions across subgroups. We emphasized particularly an examination of gender differences and within-group differences within gender. But both of our analyses lead to similar conclusions overall—that there are negative mental and physical effects over time for adults because of death of parents.

Both these national studies also give credence to what smaller studies with more limited samples have indicated—parent loss is associated with problematic outcomes, sometimes short term and sometimes long term, and should not be underestimated (Birtchnell, 1975; Horowitz et al., 1981; McHorney & Mor, 1988; Moss et al., 1993; Sanders, 1979–1980; Scharlach, 1991).

Our study is limited in not taking into account the numerous life course relationship quality factors and sociodemographic factors that we might expect may further modify effects of parent loss on well-being. We note that Umberson and Chen examined 14 such factors, in addition to gender—both for two-way interactions and three-way interactions with gender—and found

only three factors modifying effects on psychological distress (modier's functional health for mother's death, father's drinking problem, and father's mental health in childhood for father's death). Only mother's violent behavior modified effects of mother's death on alcohol consumption; age, marital status, emotional support from father, father's drinking, and frequency of contact with father modified effects of father's death on alcohol consumption. None of the factors studied by Umberson and Chen modified the effects of mother's or father's death on physical health. Therefore, although it is important to further consider these subgroup differences, there is also evidence to suggest that the problematic impact of parent death on psychological and physical well-being is not limited to only a few specific groups.

We also acknowledge that because of a 5-year gap in time, we may be missing some of the shorter term negative effects for persons who lost a parent 2 to 5 years prior to their second reports. But the fact that we still find the negative effects we do in this population-level analysis, even when we may be underestimating shorter term negative effects (e.g., within 2 years of a loss), further suggests the robustness of the negative effects on psychological and physical health reported here.

Implications for Research on Aging Families and for Practitioners

The results from this study have important implications for research on aging families. Our finding of numerous problematic effects of parent death for adult children suggests the need to continue population as well as more in-depth studies that inquire into how relationships with parents, experiencing and attending to the physical demise of parents, and the loss of parents to death affect the mental and physical health of adults. We speculated about some processes—for example, generational succession, prior caregiving, images of aging, grief because of attachment, and loss of an important emotional and instrumental support person—that might be contributing to the problematic effects of parent loss on well-being that we found. However, additional research is necessary to further explore which processes and mechanisms truly are operative in these associations.

Our finding of poorer well-being among adults who had experienced one or two parent losses prior to the study suggests that additional research should explore how availability of mothers and fathers continues to be a factor in helping shape adult children's mental and physical well-being profiles. Lower socioeconomic status adults lose their mothers and fathers to death earlier than higher socioeconomic status adults (Marks, 1996b). Availability of parent support in adulthood may be one of the unexplored social factors that helps reproduce persistent social inequalities in health (Adler, Boyce, Chesney, Folkman, & Syme, 1993).

Future research should also further examine additional factors, such as differences in past and recent relationship quality, differences in culture, and differences in other sociodemographic factors, that may moderate the relationships between parent loss and well-being. Beyond preloss factors that may moderate the associations between loss and well-being, it is also important for future research to consider postloss factors that can help attenuate the impact of parent loss on well-being.

Gender was found to be an important moderator of the impact of parent loss. Future research investigating further why the loss of a same-gender parent is most problematic for adult well-being would also be very valuable. Likewise, exploring additional physical health outcomes would be helpful to evaluate whether the greater impact of parent loss on physical health for men than women we found in some cases is a consistent pattern across other dimensions of physical health.

The results from this study also have several implications for family life educators, clinical psychologists, marriage and family therapists, and other practitioners working with adults.

First, it appears time to fully recognize the importance of addressing the significance of parent loss for adults in family life education and practitioner education and training. Family life educators should include attention to preparing adults to anticipate that the loss of a parent or parents may not be an easy transition. It would be helpful if adults were allowed to understand that they are not abnormal if they experience a challenging time with these losses. Although it is relatively expectable to lose parents to death during adulthood, because of the long-term attachments and linked lives associated with the mother-adult child bond and the father-adult child bond, it is not uncommon for the death of a parent to be a psychologically and physically challenging as well as a potentially transformative event (Umberson, 2003).

Given the evidence that parent loss can also affect marital interactions and marital quality (Umberson, 1995, 2003), it is also important that those doing counseling with couples be cognizant of the potential issues between couples that may emerge when one member of the couple loses a parent to death. Once again, because of a societal minimizing of this loss, a marital partner may inappropriately feel their bereaved partner should “just get over it” and may deride or misunderstand the grieved partner, unless there is better overall understanding of the depth of this loss.

Filial bereavement may also spill over into how an adult may continue to care for their own children, particularly if these children are still young. The death of an adult’s parent means that the children of that adult have also lost a grandparent. Therefore, it may be advisable that such a death be considered and supported by family life educators and practitioners in a holistic family systems fashion (Abeles, Victor, & Delano-Wood, 2004).

It is clear from this study that parental death has an important impact on adults’ psychological and physical well-being and that this impact varies by gender. Additional research attention to this topic is important to help further illuminate the many ways in which parent-child relationships continue to be an important factor in determining well-being for both parents and adult children across the adult life course. Additional practitioner attention is important to help adult children, their partners, and their families traverse as positively as possible the life course experience of the death of parents.

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Table 1
 Weighted Percentage Distribution (Unweighted *N*) for Death of Parents During Five Years

Parent Status	Total Sample		Women		Men	
	Unweighted <i>N</i>	Weighted %	Unweighted <i>N</i>	Weighted %	Unweighted <i>N</i>	Weighted %
Both alive T1-T2 (omitted)	3,340	37.7	1,990	35.2	1,350	38.5
Father died T2	697	7.9	437	7.2	260	7.3
Mother died T2	592	6.7	375	7.4	217	6.5
Both parents died T2	85	1.0	53	0.9	32	0.9
One or both dead T1-T2	4,151	46.8	2,604	49.3	1,547	46.8
Valid cases	8,865	100.0	5,459	100.0	3,406	100.0

Source: National Survey of Families and Households, 1987–1993, primary respondents

Note: T1 = Time 1, 1987 and 1988; T2 = Time 2, 1992 and 1993. Percentage totals do not always total 100 because of rounding error.

Table 2
Descriptive Statistics for Analytic Variables

Variable	<i>M</i>	<i>SD</i>	Range	Cronbach's Alpha
Mental and Physical Health Outcomes				
Depressive symptoms (T1)	2.08	1.18	0 to 4.44	.93
Depressive symptoms (T2)	2.06	1.14	0 to 4.44	.93
Binge drinking (T2)	0.16	0.36	0 to 1	
Global happiness (T1)	5.45	1.35	1 to 7	
Global happiness (T2)	5.41	1.32	1 to 7	
Self-esteem (T1)	4.14	0.59	1 to 5	.63
Self-esteem (T2)	4.09	0.64	1 to 5	.63
Personal mastery (T1, one item)	3.63	0.96	1 to 5	
Personal mastery (T2)	18.17	3.32	5 to 25	.64
Psychological wellness (Ryff) (T2)	84.74	11.55	19 to 108	.81
Self-assessed health (T1)	4.07	0.81	1 to 5	
Self-assessed health (T2)	3.96	0.84	1 to 5	
Demographic characteristics				
Gender (<i>female</i> = 1)	0.53	0.50	0 to 1	
Age (T1)	42.92	16.44	16 to 95	
Race/ethnicity (<i>non-White</i> =1)	0.17	0.38	0 to 1	
Employed (T2)	0.63	0.48	0 to 1	
Years of education (T2)	12.87	3.01	0 to 20	
Household income (in thousands US\$, T2)	45.33	41.49	0 to 853.60	
Missing on income data (T2)	0.03	0.17	0 to 1	
Child \leq 18 years in household (T2)	0.39	0.49	0 to 1	

Source: National Survey of Families and Households, 1987–1993, primary respondents ($N= 8,865$). Note: T1=Time 1, 1987 and 1988; T2 = Time 2, 1992 and 1993. Descriptive statistics calculated using weighted data.

Table 3
Estimates for the Effects of Parent Death on Mental and Physical Well-Being by Gender

Variable	Depressive symptoms ^c		Binge Drinking ^d		Global Happiness ^c		Self-Esteem ^c		Personal Mastery ^c		Psychological Wellness ^c		Self-Assessed Physical Health ^c	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Both alive T1-T2 (omitted)	—	—	1.00	1.00	—	—	—	—	—	—	—	—	—	—
Father died T2	-0.01 ^a (.06)	0.18 ^{**a} (.07)	1.11 (.20)	0.91 (.17)	-0.04 (.08)	0.03 (.10)	-0.01 (.03)	-0.05 [†] (.04)	-0.42 ^{**} (.18)	-0.38 [*] (.22)	-0.83 ^{†b} (.61)	-1.86 ^{**b} (.77)	-0.04 (.04)	-0.06 (.05)
Mother died T2	0.07 (.06)	0.08 (.08)	1.42 [*] (.21)	1.26 (.19)	-0.12 [†] (.09)	-0.22 [*] (.11)	-0.09 ^{**} (.04)	-0.03 (.04)	-0.46 ^{**} (.19)	-0.27 (.24)	-1.12 [*] (.67)	-1.92 [*] (.88)	-0.06 (.05)	-0.14 ^{**} (.06)
Both parents died T2	0.31 [*] (.15)	0.11 (.20)	1.40 (.49)	2.67 ^{**} (.45)	-48 ^{**a} (.21)	0.12 ^a (.25)	-0.21 ^{**} (.09)	-0.34 ^{***} (.11)	-1.09 ^{**} (.47)	-1.37 ^{**} (.60)	-3.63 ^{**} (1.56)	-4.72 ^{**} (2.14)	-0.10 ^b (.11)	-0.42 ^{**b} (.14)
One or both dead T1-T2	0.07 [*] (.04)	0.07 [†] (.05)	1.12 (.14)	0.92 (.11)	-0.14 ^{**a} (.06)	-0.01 ^a (.07)	-0.05 [*] (.02)	-0.04 [†] (.03)	-0.31 ^{**a} (.13)	-0.05 ^a (.15)	-1.06 ^{**} (.44)	-0.44 (.53)	-0.04 [†] (.03)	-0.10 ^{**} (.03)
Time 1 variables														
Depressive symptoms	0.38 ^{***} (.01)	0.34 ^{***} (.02)	1.04 (.05)	1.07 [*] (.04)										
Global happiness					0.24 ^{***} (.02)	0.23 ^{***} (.02)								
Self-esteem							0.35 ^{***} (.02)	0.33 ^{***} (.02)						
Personal mastery									0.73 ^{***} (.05)	0.74 ^{***} (.06)				
Self-assessed health													0.49 ^{***} (.01)	0.41 ^{***} (.02)
R ²	.19	.17			.09	.09	.15	.16	.12	.11	.14	.11	.28	.24
-2LL			2,625.14	3,188.31										
df			14	14										
Change in R ^{2e}	.001	.002			.002 [*]	.002	.002 [*]	.005 [*]	.005 [*]	.003 [†]	.002 [*]	.004 [*]	.000	.004 ^{***}
Change in -2LL ^f			-2.99	-7.94 [†]										

Source: National Survey of Families and Households, 1987-1993, primary respondents (N = 8,865).

Note: T1 = Time 1 1987 and 1988- T2 = Time 2, 1992 and 1993; LL = log likelihood. All models also included controls for age, race/ethnicity, employment status, years of education, household income, missing on income, marital status, and presence of a child under age 18 in household. Analyses used unweighted data. Overall F tests for all models were significant at P < .0001.

^a p ≤ .05 (one-tailed test) significant gender differences found in combined gender analysis.

^b p ≤ 10 (one-tailed test) significant gender differences found in combined gender analysis.

^c Unstandardized regression coefficients from Ordinary Least Squares models; standard errors in parentheses.

^d Odds ratios (exponentiated logit coefficients) from logistic regression models; standard errors of logit coefficients in parentheses.

^e R^2 change attributable to addition of parent death variable to the baseline model, including relevant T1 well-being variable and demographic controls.

^f -2 log likelihood change attributable to addition of parent death variable to the baseline model, including relevant T1 well-being variable and demographic controls.

[†] $p \leq .10$

* $p \leq .05$.

** $p \leq .01$.

*** $p \leq .001$ (one-tailed test).