

LONG-TERM PSYCHOLOGICAL AND SOMATIC CONSEQUENCES OF LATER LIFE PARENTAL BEREAVEMENT*

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ABSTRACT

The death of an adult child is purported to precipitate the most distressing and long-lasting of all grief reactions. The empirical literature surrounding such a claim, however, is primarily clinical and anecdotal in nature with relatively arbitrary and small samples. Drawing from a nationally representative sample of adults (Americans' Changing Lives, 1986, 1989), we examine the long-term effects of the death of an adult child longitudinally over two waves of assessment separated by two and one-half years. The bereaved sample comprised seventy-seven parents (78% female) with a mean age of approximately seventy years whose adult child (mean age at time of death was 42 years) had

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died within the preceding one to ten years. Results indicated that, in comparison with a comparably aged group of non-bereaved parents, the bereaved group experienced higher levels of depression. Additionally, the bereaved group reported slightly higher levels of marital satisfaction and expressed somewhat different sources of life satisfaction and different sources of worry. From Wave 1 to Wave 2 of assessment, health status declined at a more rapid rate for the bereaved than the control and the higher levels of depression for the bereaved did not change. Discussion focuses on the meaning of the death of a child, and an adult child in particular, and the complexity of the associated bereavement process.

A child's death has been described as life's greatest tragedy and an existential wound [1]—a violation of the natural order of the universe [2]. The consequent parental bereavement reflects the magnitude of this loss and is said to be “severe, complicated and long lasting” [3, p. xi] and resistant to the effects of time [4]. These strong claims frame the study reported herein: an examination of the psychological and self-perceived physical health of older parents bereft of an adult child between one to ten years. In significant advances over previous research, two assessment periods, separated by almost three years, are included as is a comparison group of non-bereaved adults of a similar age range to address adaptation independent of the “normative” effects of aging.

BACKGROUND

Although there exists an expanding and moderately impressive body of research on the effects of a child's death on parents, much remains to be discovered [5]. Klass and Marwit have claimed that the complex reactions presented by parents following the death of a child are not adequately captured by the predominant view of bereavement [6]. This view also has been criticized more generally [e.g., 7, 8] for its focus on a prescribed endpoint of recovery and the chronological and linear process by which it is achieved and its relative over-emphasis on widowhood [9]. When this endpoint is not attained, the effort is deemed to have failed and the individual is assumed to be experiencing deviant or pathological grief [e.g., 5].

In contrast, researchers report an intensification of *parental grief* over time [e.g., 3] with significant levels of depression even seven years following the death [10] and suggestions of “permanent effects on functioning and the inner lives of parents” [4, p. 298]. The intensity of parental grief has been attributed to the uniqueness of the parent-child relationship [3, 11] and the concomitant meanings and representations a child holds for the parent [12]; parental hopes, joys, sense of competence, responsibilities, efforts, and failures are manifested in and represented by the child [13]. The death is perceived as an assault on parents' sense of

continuity—a severance of the link between the past and the future [12] and the loss of a parent's "immortality project" [14]. Parents perceive their role as ending with their death, not the death of their child [15].

It has been suggested that the meanings and responses to deaths in general and the death of a child in particular may be further informed by a life course perspective [3, 9, 13, 16]. For example, later life has been characterized as a time of multiple personal, health, and social losses [e.g., 17]—all perceived as intimations of an individual's mortality [18]. In this light, an adult child's death is seen as an especially dissynchronous event [2, 19] for the parents were "next in line" to die. Thus, the impact of the death of a child may be even greater for parental survivors in later life [11] in which adjustments to the loss is further complicated and exacerbated by the longevity of relationships with affectively richer memories [20] and a concomitant intertwining of lives [21]. Gorer's interviews with six bereft parents have yielded perhaps the most often-quoted comment in this literature and reflects this view: "The most distressing and long-lasting of all griefs, it would seem, is that of the loss of a grown child" [22, p. 121].

Enhanced by the writings of Klass and Marwit [6], among others, and the relative incongruence with the general bereavement literature of the above data and observations on the experiences of the bereft, there has been a recent appreciation of the multidimensionality of bereavement reactions [23] that appear in "the movement to recovery" [24]. Prominent among these dimensions are psychological and somatic distress [4]. These dimensions organize the brief literature review that follows, highlighting the reports on older bereft parents, and structure the research reported herein.

THE PSYCHOLOGICAL CONSEQUENCES OF LATER LIFE PARENTAL BEREAVEMENT

The history of the study of parental bereavement in the later years has primarily anecdotal and clinical roots with frequent reference to Freud's differentiation of mourning (i.e., normal grief) from melancholia (i.e., chronic depression) [25]. The interpretations of these collective works have led directly to examinations of the grief and depression evidenced by bereft parents. For example, slightly more than two years following the accidental death of an adult child, Shanfield and Swain [26] found that parents continued to grieve intensely, a finding echoed by Videka-Sherman and Lieberman [27]. Leshner and Bergey found significant grief reactions and levels of clinical depression in the eighteen institutionalized mothers they studied an average of six years following their child's death [28].

This grief and depression have assumed several forms. Rubin [29], for example, reported greater despair, depersonalization, rumination, and somatization for the older parents in his study; Fish found evidence of isolation, loss of control, death anxiety, and anger among the parents he studied [30]. Feelings of guilt also are reported to be characteristic of later life parental bereavement [26,

29] as are high levels of anxiety even up to thirteen years following the loss [31]. Florian reported that regardless of the time since the death, older bereaved parents demonstrated significantly less meaning and purpose in life than a non-bereaved comparison group [32]. This lack of meaning was evident in work, in coping with problems and in feelings of uselessness, perhaps interpretable in terms of a more general change in orientation to life as a consequence of loss.

Several diffuse yet related effects have been reported, together reflecting aspects of the general context within which the loss is experienced. For example, framed in terms of the life course, Rubin found that older parents manifested more depressive symptoms than did younger parents in response to the death of an adult son [29]. Along comparable lines, Fish reported that older fathers experienced greater grief than younger fathers although there were no age differences in the grief experiences of mothers [30]. In the context of gender and family roles, Shanfield and Swain reported that the death of an adult daughter produced the greatest grief response for both parents [26]. Arbuckle and de Vries, in a comparison of spousally and parentally bereaved, reported several gender differences, although these tended to be uninfluenced by loss type; they interpret these "main effects" as evidence of the socio-historical context within which (older) grievers have been socialized [9]. In summary, the long-term effects of later life parental bereavement appear to be significant and persistent and include depression and generalized psychological distress further influenced (or perhaps represented) by the context within which the loss takes place.

THE SOMATIC CONSEQUENCES OF LATER LIFE PARENTAL BEREAVEMENT

Several studies suggest that physical health problems may remain evident over the long-term course of adjustment for parents who have suffered the death of an adult child. For example, when compared with non-bereaved parents of similar ages, Florian found poorer perceived health among bereaved parents [32]. Leshner and Bergey found that the elderly bereaved mothers of their sample reported health difficulties associated with insomnia and nervousness and that hip or other bone fractures had doubled since bereavement [28]. The bereaved parents (and mothers especially) in the Shanfield and Swain study similarly reported more health complaints since the accidental death of their adult child [26]. Shanfield, Benjamin, and Swain compared older parents whose children died accidentally with parents whose children died from cancer [33]. They found that parents who had experienced a sudden, accidental death reported greater health problems than parents who had experienced an expected loss, suggesting that cause of death, and/or perhaps relationships prior to death, may be a mitigating factor affecting physical health.

Several studies have examined war-related loss specifically. For example, in a study comparing parents bereft of an adult child with non-bereft controls, Levav

reported a significantly higher mortality rate among the bereaved [34]. In a subsequent study, Levav, Friedlander, Kark, and Peritz compared parents whose sons died in war with parents whose sons died of accidental causes and revealed more complex differences [35]. Overall, no elevated mortality rate was noted although, interestingly, spouseless parents evidenced a higher age-adjusted mortality rate than married parents perhaps attributable to factors of bereavement overload [36] and/or diminished social resources.

In a study examining health effects ten years following the death, Rubin compared older parents who had lost an adult son in war with middle-aged parents who had lost a younger child [29]. Both at the initial time of death and ten years after the loss, the retrospective data indicated that older parents experienced more physical health difficulties in the form of greater degree of sleep disturbances, appetite problems and other physical health symptoms (some of which may be the physical manifestations of depression) than did younger parents. These problems subsided over the long-term course of bereavement, although Rubin reported that these difficulties did not disappear completely. The absence of a control group leaves open the possibility that these difficulties may reflect age-related health deterioration.

A related report by Rubin compared older parents bereft of an adult child through war as much as thirteen years previously with a comparison group of parents whose adult child had left or was leaving home [4]. Results generally revealed affective, cognitive, and somatic effects that differentiated the bereft from the non-bereft and were relatively independent of time since loss. In summary, past data suggest that later life parental bereavement is associated with significant deleterious effects on health over which time has little influence.

STUDY OBJECTIVES

The foregoing review suggests significant and long-lasting psychological and somatic consequences of parental bereavement in later life. As previously mentioned, however, several sampling and methodological problems qualify many of these results. In particular, samples often have been homogeneous, small and select [28, 34], frequently drawn from special bereavement (self-help) groups or clinical populations. The results on long-term adjustment often are derived from cross-sectional and retrospective data, mandating caution in interpretation. Moreover, respondents generally have been recruited on the basis of their special status as bereaved and are informed of the study purposes and goals prior to participation (see [10] for a detailed discussion of this issue; also see [2]). With refusal rates often in excess of 50 percent, it is unclear the extent to which those who participate are representative of the bereaved in general. Control or comparison groups are surprisingly rare, and when included, many sociodemographic factors have been left to vary. The instruments used have also varied greatly, often

created for the purposes of the investigation making comparisons across studies difficult and of questionable validity.

The Americans' Changing Lives survey (ACL; a large, 2-wave national probability sample of non-institutionalized American adults) offers an unique opportunity to address many of these methodological and sampling criticisms while at the same time explore some of the defining issues of parental bereavement in the later years. For example, the long-term effects of later life parental bereavement on both psychological and physical health, independent of the effects of again, may be examined with this longitudinal data set. Additionally, the socio-historical, demographic, and familial context (i.e., age, gender, education, income, race, marital status, and number of children) within which bereavement occurs—an often omitted and neglected aspect in the bereavement process [9, 37]—may be better controlled and accounted for with these data. The sample for ACL (from which the bereaved parents and their comparisons are drawn) comprise adults who were invited to participate in a large survey on health, stress, and productive activity over the life course [38].

METHOD

Respondents

The first wave of ACL was conducted in 1986. To be eligible to participate at that time, respondents had to be at least twenty-five years of age and residing in non-institutionalized housing in the continental United States. The sample was designed to represent a cross-section of Americans, although African Americans and persons over sixty were over-sampled. The follow-up wave of the study was conducted in 1989.

Respondents participating in both waves of the probability sample who indicated in the Wave 1 (1986) interview that they were bereaved of an adult child within the preceding ten years represented our bereaved sample. (For our purposes, we define an adult child as at least twenty years of age.) The control sample comprised participants who were 1) parents, 2) not bereaved of a child, 3) within the same age range, and 4) race as the bereaved parents.

Response Rates and Attrition

Face-to-face interviews were conducted with 3614 respondents in 1986. The overall response rate at wave 1 was 76 percent. Five percent ($n = 181$) of the sample indicated that they had lost a child (of any age) since 1976. Twelve of these bereaved parents (i.e., 6.6%) died before the second interview. Twenty-eight bereaved parents (15.5%) could not be located or declined to participate in the second interview in 1989, leaving an eligible bereaved sample of 141. The

attrition rate for the bereaved sample was identical to that for the non-bereaved (Chi-square = 0.00). The bereaved parents' mortality rate was slightly, but not significantly, higher than that of those participants who were not bereaved of a child (4%; Chi-square = 2.25, $df = 1$, $p < .15$).

Of the 141 bereaved parents participating in both interviews, thirty-six had lost a child younger than twenty years of age. Of the remaining 105 bereaved parents, twenty-one reported that another child of theirs had died between the two interviews,¹ and seven provided inconsistent data across the two waves with respect to their deceased child (i.e., reporting at wave 2 that they had never lost a child or describing the loss of a different child than the one reported at wave 1). These cases were excluded from the analyses that follow, thus leaving a final bereaved sample of seventy-seven parents.

Since all of the seventy-seven bereaved parents were either African American or Caucasian, non-bereaved parents who were neither were selected out of the control sample. As well, since all but one of the seventy-seven parents were at least fifty years of age, the control sample was restricted to those at least fifty years of age. This left a control sample of 998 non-bereaved parents.

Information Regarding the Deceased

The mean age of the deceased child at the time of death was 42.1 years ($SD = 10.8$). Ages ranged from twenty-one to sixty-three years. The mean time since the death (from the first interview in 1986) was 3.9 years ($SD = 3.0$), with a range of one to ten years. Sixty-five percent of the children who died were male. Eleven parents (14.3%) lost their only child. In 66 percent of the cases, the death was described by the parent as unexpected. Table 1 summarizes the causes of death.

Interview Instrument

Four aspects of psychological and somatic adjustment were assessed. Depression was assessed with an eleven-item version of the Center for Epidemiological Studies Depression Scale (CES-D; [39]). On a 3-point scale, respondents indicated how often they experienced each depressive symptom during the past week. Higher scores thus indicate more depressive symptoms. Cronbach's alpha for the scale, averaged over the two interviews, was .79. Self-esteem was measured by three items taken from Rosenberg's [40] Self-esteem Scale. Respondents indicated the extent to which they agreed, using a 4-point scale (1 = "strongly agree," 4 = "strongly disagree"), with each statement (e.g., "I take a positive attitude

¹ These prospective data on the 21 parents who lost an additional child represent a unique opportunity to explore several neglected features of loss (including bereavement overload and relationships prior to death) and will be examined further and in greater detail in a subsequent report.

Table 1. Cause of Death of Adult Children
(*N* = 77)

Cause of Death	Percent
Cancer	24.7
Heart attack	26.0
Stroke	3.9
Other heart/blood problem	6.5
Motor vehicle accident	9.1
Industrial/work accident	2.6
Other accident	6.5
Suicide	5.2
Murder	1.3
Lung/respiratory prob. (exc. cancer)	2.6
Endocrine, metabolic, nutr. probs.	2.6
Neurological problem	1.3
Cirrhosis	1.3
Lupus	1.3
Other	1.3
Don't know	2.6
Missing	1.3

toward myself'; $\alpha = .56$). Lower scores therefore represent greater self-esteem. Marital/Relationship satisfaction was measured by asking respondents who were married or living with a partner the extent to which they agreed or disagreed on the same 4-point scale with statements such as, "There is a great deal of love and affection expressed in our relationship" and "My (spouse/partner) doesn't treat me as well as I deserve to be treated" (reversed). Low scores represent greater marital satisfaction. Alphas for the scale at both waves of the interview were .83. Perceived health was assessed through two questions that measured respondents' self-ratings of their health (e.g., "How would you rate your health at the present time?"), in addition to a functional health index, which rated respondents in terms of their ability to perform daily tasks, ranging from bathing themselves to doing heavy work around their home. Higher scores indicate poorer perceived health; Alphas for the combined health measure was .79 at both interviews.

Early in the Wave 1 interview, respondents were asked, "At this stage in your life, what are your most important sources of satisfaction or pleasure?", followed by, "At this stage in your life, what are your most important problems, worries, or concerns?" Responses were later categorized into nine (mutually exclusive) sources of satisfaction and nine problems or worries. The nine sources of satisfaction were: family, work or education, assets or financial security, health (self,

family, and friends), social relationships, leisure activities, religion, miscellaneous, and "no sources of satisfaction or pleasure." The nine categories of problems and worries were: family, work or education, assets or financial security, health, death (self, family, or friends), social relationships, leisure activities, miscellaneous, and "no problems or worries."

Recent Negative Life Experiences

In the first interview, respondents were asked if, during the past three years, they have been 1) widowed, 2) divorced, 3) the victim of a physical attack or assault, 4) involuntarily laid off or fired, 5) retired, or had experienced a 6) life-threatening, or 7) serious, but not life-threatening, illness or injury. In the second interview, respondents were asked if they had experienced these events since the first interview. The number of events that each respondent had experienced was summed to obtain a measure of the number of recent stressful experiences (excepting the loss of a child).

Self-Rated Recovery from the Child's Death

Respondents who indicated that a child of theirs had died were asked, "In general, how well do you feel you have dealt up to now with (his/her) death and any changes or problems which may have resulted from it?" Response categories ranged from (1) "Very well" to (4) "Not too well."

RESULTS

Demographics of the Samples

Despite the comparable age ranges, bereaved parents were nevertheless older on average ($M = 69.6$) than controls ($M = 65.2$; $t = 4.52$, $p < .001$). Seventy-eight percent of the bereaved parents were female compared to only 65.5 percent of the control group (Chi-square = 4.38, $df = 1$, $p < .05$). Forty-five percent of the bereaved sample was African American, compared with only 23 percent of the control sample (Chi-square = 18.14, $df = 1$, $p < .001$). Control respondents also were more educated ($M = 11.2$ years of education) than bereaved parents ($M = 9.9$ years; $t = 3.38$, $p = .001$). Bereaved parents reported a slightly lower family income ($M = \$18,600$) than controls ($M = \$23,500$; $t = 1.85$, $p < .10$).

Bereaved and control samples differed in terms of marital status (Chi-square = 10.92, $df = 4$, $p < .05$). Relative to controls, the bereaved parents were more likely to be widowed at the time of the 1986 interview (Bereaved parents: 41.6% widowed, Controls: 25.6%; Chi-square = 9.36, $df = 1$, $p < .005$), and, correspondingly, less likely to be married (Bereaved parents: 50.6% married, Controls: 63%; Chi-square = 4.56, $df = 1$, $p < .05$). On average, widows who were also bereaved of a child had been widowed 16.4 years prior to the first interview ($SD = 11.6$),

whereas widows who were not bereaved of a child had been widowed 13.9 years ($SD = 11.2$), although controlling for age, gender, race, education, income, and current number of children, this difference was not significant ($F < 1$). There was no significant difference between the two samples with respect to number of surviving children ($t < 1.0$; Bereaved $M = 3.48$ vs. Control $M = 3.25$).

There was also no significant difference at either interview in the number of recent life events (excluding the loss of a child; main effect and Wave X Bereaved/Control interaction F s < 1). Neither were bereaved more or less likely than controls to have experienced within three years of each interview any of the seven events making up the scale (Chi-squares < 1.2 , $ps > .25$).

In summary, then, relative to controls, bereaved parents were more likely to be older, widowed, and women with less education and slightly less income. A greater proportion of these bereaved parents were African American who, including their deceased child, had a greater number of offspring. Both the bereaved and control participants had similar numbers of recent traumatic events of their lives, with the exception of the loss of a child, and there were no differences in the temporal distance from these events.

Bereaved versus Controls

Measures of Adjustment

All four measures of adjustment were moderately intercorrelated. Consistent across both waves, health and depression were most highly correlated (average $r = .50$), whereas relations of marital satisfaction to health were lowest across the two waves (average $r = .11$). To test for differences in adjustment between the bereaved and control groups, a series of four (one for each adjustment variable) 2 (Wave) \times 2 (Bereaved/Control) repeated measures ANCOVAs were conducted. Demographic variables (age, gender, marital status, race, education, and income) were covaried in each analysis.² Analyses revealed a significant difference only on the depression measure, ($F(1,1056) = 5.56$, $p < .02$), with the bereaved reporting higher levels of depression. A marginal effect was also found for marital satisfaction ($F(1,599) = 3.06$, $p < .10$), such that the bereaved parents (who were in a marital relationship) reported slightly greater marital satisfaction. Controlling for age, gender, income, race, and number of children, those bereaved parents not in a marital relationship tended to be more depressed than those currently in a relationship ($F(1,1057) = 6.54$, $p = .01$).

In general, measures of adjustment were relatively stable across the two time points. Only one of the analyses suggested change over time. The ANCOVA

² For marital satisfaction, gender, race, education, age, and number of children were significant covariates; for CES-D, marital status, race, education, and income, were significant covariates; for self-esteem, education and income were significant covariates; and for health, education, income, and age were significant covariates.

for health indicated a significant decrease in perceived health from Wave 1 to Wave 2, as might be expected given the age of samples ($F(1,1073) = 22.65$, $p < .001$). This effect was qualified, however, by a significant Bereaved by Wave interaction ($F(1,1073) = 5.51$, $p < .02$). Simple effects analyses suggested that whereas the perceived health ratings of the two groups did not differ at Wave 1, the parentally-bereaved sample showed a greater decrement in health by Wave 2, suggesting that their health was deteriorating at a faster rate than for controls (even after controlling for the effects of age).

Sources of Satisfaction

When asked what were their greatest sources of satisfaction or pleasure, the parentally-bereaved respondents offered, on average, 2.16 sources of satisfaction per person. The control respondents offered, on average, 2.32 sources of satisfaction. After controlling for age, race, education, marital status, and gender of respondent, no differences in the number of sources of satisfaction were observed between bereaved and non-bereaved ($F = 1.04$, ns.). However, women offered a greater number of sources of satisfaction than did men ($Beta = .167$, $p < .001$).

Although bereaved and non-bereaved parents did not differ in the number of reported sources of satisfaction, there were notable differences in the *specific* sources of satisfaction the two groups identified, although these differences were limited to women. As Table 2 illustrates, parentally-bereaved women were less

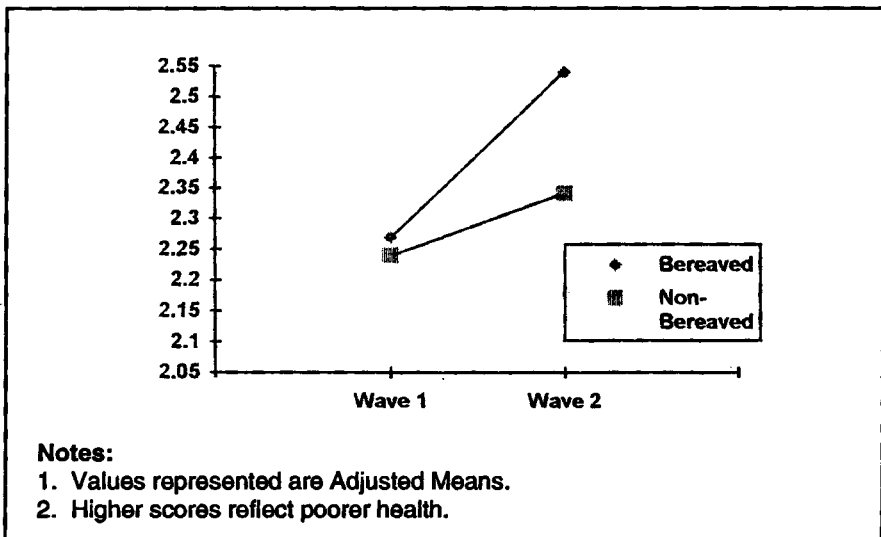


Figure 1. Perceived health ratings of bereaved and non-bereaved parents over the two interview waves.

Table 2. Sources of Satisfaction and Pleasure Reported by Bereaved and Non-Bereaved Parents

Source of Satisfaction/Pleasure	Men (%)		Women (%)	
	Bereaved	Non-Ber.	Bereaved	Non-Ber.
Family	52.9	41.0	36.7	55.7**
Work	11.8	18.1	3.3	11.2 [#]
Possessions/Assets	11.8	7.6	2.3	8.6
Health	11.8	6.7	5.0	7.0
Interpersonal/Social	23.5	18.9	26.7	32.6
Leisure	52.9	63.1	55.0	52.9
Church/Religion	5.9	9.6	30.0	20.5 [#]
Other	0	5.8	10.0	7.2
Nothing/ No Source of Satisfaction	0	0.6	0	0.5
<i>Mean Sources of Satisfaction</i>	2.24	2.12	2.13	2.24
<i>n</i>	17	344	60	654

Notes: Percentages denote the proportion of respondents mentioning at least one source of satisfaction/pleasure from the category. Percentages add to more than 100 percent because respondents frequently offered more than one source of satisfaction.

Significance of Chi-squares ($df = 1$) for Bereaved parent vs. Non-bereaved parent for men and women is given by:

[#] $p < .15$
^{**} $p < .01$

likely to mention family and work, and were more likely to mention religion, as sources of satisfaction relative to non-parentally bereaved women.

Sources of Problems or Worries

When asked what were their greatest sources of problems or worry, the parentally-bereaved respondents offered, on average, 1.57 sources of worry. The control respondents offered, on average, 1.50 sources of worry. After controlling for age, race, education, marital status, and gender of respondent, no differences in the number of sources of worry were observed between bereaved and non-bereaved ($F = 1.83, p > .15$). Significant effects with gender and age were noted (Gender: Beta = .188; Age: Beta = -.102, $ps < .002$), such that women provided more sources of worry than men, and younger respondents reported more worries than older respondents.

Although bereaved and non-bereaved parents did not differ in the reported number of worries, there was one difference in the specific worries reported by

the two groups. As Table 3 shows, across both men and women, the parentally bereaved were more likely to report worrying about death.³

Within Bereaved Analyses

Of the four measures of adjustment obtained at Wave 1, the bereaved respondents' self-rating of how well they had dealt with the loss of their child (i.e., self-rated recovery, asked at Wave 1) was correlated significant only with depression ($r(75) = .36, p = .001$). Importantly, self-ratings of recovery were not significantly related to time since the death ($r = -.05$). Similarly, time since the death was not related significantly to depression ($r = .05$). Indeed, of the measures of adjustment, time since the loss was correlated significantly only with health, such that poorer perceived health was associated with greater time since the loss ($r = .28, p < .02$). The effects described above were not lessened significantly after statistically controlling for age, gender, education, race, and income.

Of the demographic variables, the most significant predictor of adjustment was the number of negative events that the bereaved had recently experienced. After controlling for age, gender, education, race, and income, greater number of recent negative events was associated with poorer perceived health ($r = .27, p < .05$). This association was also observed at Wave 2 ($r = .30, p = .01$).

Relations of Loss Characteristics to Adjustment and Recovery

In general, there were few significant differences in adjustment or recovery attributable to loss factors. There were two weak exceptions to this pattern, however. The loss of a daughter, as opposed to a son, was weakly associated with a perceived failure to recover ($t(75) = 1.74, p < .10$), but not with any of the other measures of adjustment ($ps > .25$). As well, surprisingly, perceived health was somewhat worse at both waves if the loss was expected than if it was unexpected ($F(1,73) = 8.49, p < .01$), although differences were not evident for the expected/unexpected factor on other adjustment variables.

DISCUSSION

This longitudinal study examined the long-term psychological and somatic aftermath of later life parental bereavement. Significant consequences were observed, although there was also much comparability between the bereaved and non-bereaved groups. In addition, the socio-demographic and personal context

³ Of the five bereaved parents mentioning worrying about death, 3 worried about the death of their child, 2 worried about their own death. Of the 15 controls, 7 worried about the death of their spouse, 5 worried about their own death, 3 worried about the death of friends or relatives.

Table 3. Sources of Worry Reported by Bereaved and Non-Bereaved Parents

Source of Worry	Men (%)		Women (%)	
	Bereaved	Non-Ber.	Bereaved	Non-Ber.
Family	5.9	20.9	28.3	36.4
Work	5.9	9.3	0	5.7
Possessions/Assets/ Financial Security	23.5	27.0	25.0	27.4
Health	29.4	35.2	46.7	46.2
Death	11.8	2.3 [#]	5.0	1.1 [*]
Interpersonal/Social	0	0	1.7	0.8
Loss of Independence	5.9	2.3	10.0	5.2
Other	23.5	13.7	23.3	14.5 [#]
Nothing/No Source of Worry	17.6	21.5	15.0	10.6
<i>Mean Sources of Worry</i>	1.35	1.27	1.63	1.62
<i>n</i>	17	344	60	654

Notes: Percentages denote the proportion of respondents mentioning at least one source of worry from the category. Percentages add to more than 100 percent because many respondents offered more than one source of worry.

Significance of Chi-squares (*df* = 1) for Bereaved parent vs. Non-bereaved parent for men and women is given by:

[#]*p* < .15

^{*}*p* < .05

within which the bereavement took place emerged as important considerations. These consequences and context effects guide the discussion that follows, concluding with a brief evaluation of the study and comment on its implications.

Consequences of Later Life Parental Bereavement

The psychological consequences of later life parental bereavement uncovered in this study range from marked and direct to subtle and indirect in nature. For example, bereaved parents reported significantly greater depression, supporting both expectations and previous research [e.g., 26, 28]. Importantly, this was a depression over which time had apparently little effect, as depression levels and other measures of psychological adjustment were unrelated to time since loss, reminiscent of Florian’s findings [32]. A notable exception to this pattern was perceived health which was identified as poorer with increased time since the death. Further evidence of this degenerative physical effect resides in the finding that health deteriorated significantly faster for the bereaved parents relative to

controls over the two waves of the study and the mortality rate of the bereaved parents was slightly, although nonsignificantly, higher than that of controls (comparable to that reported in [34]). Taken together, these results may be seen as supportive of Gorer's observation that ". . . it may be literally true . . . that the parents never get over [their loss]" [22, p. 121] (see also [10]) and of Rando's [3] claim that parental grief appears to go unresolved. Birren [41] has suggested that later life parental bereavement is the functional equivalent of the addition of ten years onto an individual's chronological age; the above noted effects attest to the toll that such an addition takes.

The effects of later life parental bereavement were not uniformly negative, however. This is a point frequently misplaced in bereavement research with its primary focus on depression [see 42] to the exclusion of other outcomes, both positive *and* negative [see 7, 8]. The bereaved parents in this study who were currently married reported slightly, although non-significantly, *greater* marital satisfaction than the married, non-bereaved. In general, married individuals tended to report less depression. Later life marriage may serve as a source of emotional support for bereaved parents in contrast to younger parents [see 10], for whom marital dissolution is not an infrequent outcome. Later life, more generally, may also be associated with a greater comparability of emotional expression for women and men [e.g., 43], perhaps offering a framework for understanding the greater discrepancy in the experiences of younger and older bereaved fathers in contrast to comparably aged mothers [30].

Another example of outcomes in the general province of the positive, and of a more indirect nature, include the findings on sources of satisfaction. Recall that the bereaved and the non-bereaved did not differ in the number of sources from which satisfaction was derived (or in which worries were positioned). Parentally-bereaved women, however, were less likely to mention family and work and were more likely to mention religion as sources of satisfaction than were those women not bereft of an adult child. Additionally, bereaved parents were more likely to report worrying about death than the non-bereaved parents. Perhaps issues of attachment and self-identification underlie these sources of satisfaction and worry as bereaved parents struggle with who they are in a world made chaotic by their child's death. The uncovering of these effects would be lost in the more scalar approaches to bereavement and are suggestive of provocative differences in orientation and responses to life in bereavement.

Context Effects

The indirect nature of above-noted consequences is shared by the demographic differences and covariates effects which, in the aggregate, underscore the importance of attending to the socio-demographic context in which bereavement and adaptation occur [23]. As Averill and Nunley have identified, emotional

reactions to bereavement cannot be isolated from other social phenomena and the course of time during which such reactions take place [44].

For example, it is of particular relevance that in the ten years preceding Wave 1 of this study, 5 percent of this random sample of American adults had lost a child (of any age) more than half of whom were parents at least fifty years of age. This does not represent a small and insignificant sample of the population and takes on heightened importance against a backdrop of population aging. Moss et al. have reminded us that a woman aged sixty-five or over has a one-in-four chance of outliving a son [11]! Furthermore, this sample is not normally distributed in the overall parent population: African Americans were significantly over-represented among bereaved parents. These racial differences in the prevalence of parental bereavement, and their psychosocial adaptation correlates, merit further investigation.

The bereaved sample, relative to controls, was also disproportionately female, older, less likely to be married, and more likely to be widowed. When these characteristics are combined with the finding that those currently not married were more depressed than those who were married, an image emerges of a context in which individuals are struggling with and suffering from the multiple social and interpersonal losses of their lives; perhaps this reflects what Kastenbaum has described as "bereavement overload" [36]. Preliminary support for this interpretation is offered by the finding that, at both waves of the study, those who reported a greater number of recent negative events also reported poorer health. This parallels the more dramatic findings of Levav et al. who reported higher mortality rates among spouseless bereaved parents [35].

Additional challenges to successful adaptation include the slightly lower income and the lower levels of education that bereaved parents report. Earlier research has suggested a positive association between education and adjustment for older bereaved parents [45]; in fact, Lopata [37] has concluded that the degree of education may be the most influential variable, providing the ability to clarify problems, to identify available resources, and to take action toward possible solutions [9].

The context of bereavement, however, involves more than the socio-demographic features by which populations might be characterized. As Stroebe et al. have suggested, understanding the aspects of life connected with the loss will offer avenues for the assessment of adaptation [42]. This includes some recognition of the personal and social meaning of the nature and quality of the relationship that has been lost. For example, similar to the findings of Shanfield and Swain [26], the loss of a daughter was modestly (although not significantly) associated with a sense of having dealt more poorly with the death and the concomitant problems. Perhaps this reflects the closer relationships that have been found to exist between parents (and especially mothers) and their daughters.

Perhaps, also, this bears upon issues of caregiver access, either real or anticipated, given the prevalence of women (including large numbers of adult daughters) fulfilling the duties and responsibilities of caregiver. Expected losses were associated with poorer perceived health than were unexpected losses perhaps in this instance attesting to the costs of caregiving and/or the fact that the parents themselves were older and perhaps more likely to decline. These remain hypotheses at this point in the absence of additional data.

Study Evaluation and Implications

The ACL survey provided an unique, although imperfect, opportunity to examine the long-term and ongoing effects of later life parental bereavement. Significant strengths of the ACL include its longitudinal nature (although this added surprisingly little to the results of this investigation), the representative sampling characteristics and the fact that the bereaved were not informed prior to the interview that they would be discussing the loss of their child. In addition, the inclusion of a large and appropriate comparison group and the controlling of various socio-demographic factors facilitated by the broad battery assessed in the ACL are improvements over previous research. For example, as previously identified, a major deficiency in this area of study has been the reliance on relatively small, homogeneous, and special bereavement groups (e.g., self-help groups) or clinical populations for study samples. The random sampling in the ACL minimized the "priming effects" inherent in such samples and sampling strategies which may at least partially account for the lack of differences between the two groups on several of the measures.

This, however, also raises one of the limitations of the approach taken in this study and, in general, the use of data not explicitly collected for the study of (parental) bereavement. For example, guilt, rumination, anger/hostility or even grief were not assessed in this study. Suggested here is that finer levels and more sensitive and/or pointed types of measurement may better uncover some of the complexities of parental bereavement. An example of this thinking may be found in the results concerning the sources of worry and satisfaction, perhaps more generally reflective of changes in orientation to life as a consequence of parental bereavement. Similarly, death and the complexities of bereavement happen to and within families and culture [9]; a more thorough knowledge of family dynamics and the cultural and/or racial customs in bereavement would add to our understanding of the personal, familial, and social meanings of what has been lost and a better appreciation of the many complex, profound and often subtle ways in which individuals grieve. As such, the results of this study should be seen as more evocative than definitive.

Implicit in the above are several overlapping implications of this study for subsequent theory, research, and practice. For example, this study questions the

chronological, linear, and endpoint-oriented approach to bereavement suggesting instead a more long-term, complex and fluid understanding of the process [see also 46]. The exclusiveness of this process to parental bereavement has yet to be determined, although it has been advanced elsewhere [6]. Researchers are encouraged to move beyond the conventional temporal markers and indicators of adjustment in their assessment of bereavement trajectories. Attention should be drawn to the context within which bereavement takes place as informed by SES indicators, as well as race, gender, age, and life experiences (including other losses). For example, can there ever be an older non-bereft sample; is it reasonable to assume that the older non-bereaved of this study are not bereft of any significant individual of their lives [e.g., 47]? Reactions to death may best be understood in the context of other losses experienced by the bereft. Our attempt to explore this (i.e., the number of negative events, including widowhood) was inadequate given that we could not ascertain other losses such as the death of a friend or sibling. Similarly, as suggested by de Vries and others [e.g., 9, 13] as well as some of the within-bereaved analyses reported here, family dynamics play a role not limited to the gender of the deceased child and circumstances of the death; future research might consider exploring the effects of birth order, only children, only sons or daughters, or prior relationship evaluation (e.g., favored child, child "most likely to succeed"). The fluidity and complexity suggested by the above serve as important reminders for what many clinicians already know and practice: the courses and consequences of bereavement assume many forms and the failure to follow some prescribed and normative recovery patterns need not be interpreted as a coping failure [e.g., 48].

CONCLUSION

This study provides evidence of both significant difference and substantial consistency between a group of older bereaved parents and a comparison population. The differences and interpreted consequences of parent bereavement are articulated above; recall as well that bereaved parents did not differ from controls on a number of measures including self-esteem or perceived health (at Wave 1). Several of the findings were of only marginal statistical significance (e.g., marital satisfaction). The patterns of change over the two waves of the study were largely comparable for the groups. Perhaps a conclusion to draw, as suggested by other researchers, is that older bereaved adults demonstrate significant hardiness and resilience [e.g., 49, 50] or even, perhaps, indifference. Alternatively, it may be that those suffering the most may become institutionalized or may themselves succumb. The foregoing account attests to the complexity of the bereavement process, the context within which it takes place, and the sometimes subtle positive and negative changes that take place over extended periods of time.

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