

THE LONG-TERM EFFECTS OF THE LOSS OF A SPOUSE OR
AN ADULT CHILD IN LATER LIFE

by

NANCY NORDAN

B.A., The University of British Columbia, 1973

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Department of FAMILY STUDIES.

The University of British Columbia
Vancouver, Canada

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Abstract

Of all the losses experienced in life, researchers have suggested that the two most disruptive and stressful are the death of a child and the death of a spouse. Drawing on the data from the national survey, American's Changing Lives: Wave 1, 1986, this study examines the long-term adjustment for older men and women two to fifteen years after the death of a spouse or an adult child. Bereaved spouses, bereaved parents and non-bereaved older adults were compared on multiple aspects of personal functioning by using Weiss's (1988) theoretical framework of effective functioning in everyday life (i.e., self-efficacy and perceived health), psychological comfort (i.e., depression), gratification (i.e., life satisfaction) and hopefulness for the future (i.e., fatalism, vulnerability and ability to plan). Two-factor (Bereavement X Gender) ANOVAs covarying age, race, income, education and number of children revealed fewer differences between the groups than expected; however, the bereaved adults were less likely to plan for the future and widowed adults reported higher self-efficacy and lower life satisfaction than non-bereaved adults. A main effect of gender for self-efficacy, depression, fatalism and vulnerability was found, with women reporting lower levels of personal functioning than men regardless of bereavement status. Also, these analyses demonstrated the importance of sociodemographic characteristics of age, race, education, and income on personal functioning in later life. A more exploratory analyses across the bereaved

adults separately was conducted by using Three-factor (Bereavement X Gender X Time since Loss) ANOVAs covarying age, race, education and expectedness of loss. These results suggested that duration of bereavement may be a predictor of long-term personal adjustment. Widowed women bereaved for 6 to 15 years reported greater life satisfaction than those bereaved for 2 to 5 years, and bereaved adults of 6 to 15 years reported higher levels of completing plans and greater overall adjustment than those bereaved for 2 to 5 years. The discussion focuses on the overall patterns and the possible explanations for the similarities across the two losses, the pervasive role of gender and the strong and consistent influence of education on long-term adjustment in later life. The benefits of including both positive and negative indicators of personal functioning are also discussed. Future research should include appropriate comparisons groups, be longitudinal in nature and multidimensional in scope.

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Chapter I

Introduction

Every year, approximately eight million Americans of all ages experience the death of an immediate family member (Osterweis, Solomon, & Green, 1987). Eventually, all families will endure such a loss. In Western societies, the cultural beliefs about the features of grieving and the length of time for recovery appear to be relatively simplistic (Gray, 1988; Osterweis, Solomon, & Green, 1984; Rando, 1986a; Wortman & Silver, 1987, 1989). Influenced by traditional models of grief and dying (e.g., Bowlby, 1969, 1980; Kubler-Ross, 1969; Worden, 1982), most people assume that all grieving individuals progress through stages or phases to recovery (Rando, 1986b; Wortman & Silver, 1987, 1989). It is generally expected that within one calendar year, the survivor will recover from the loss and return to normal functioning (Hansson, Stroebe, & Stroebe, 1988; Osterweis et al., 1984; Wortman & Silver, 1987).

With increased knowledge, a more realistic picture of grieving appears to be one of overlapping and alternating intervals of searching, anger, guilt, anxiety, sadness and depression (Averill & Nunley, 1988; Osterweis et al., 1987). The bereavement phenomenon is now considered to be a multidimensional process, producing intense and pervasive psychological distress, as well as impairing physiological and social functioning (Osterweis et al., 1984, 1987; Raphael, 1983; Rando, 1986a; Sanders, 1989; Stroebe, Stroebe, & Hansson, 1988; Wortman &

Silver, 1987, 1989). The time period for recovery may require four years or more (Lehman, Wortman, & Williams, 1987) and even then, it may be only partial or incomplete (Rando, 1986b).

Raphael (1983) proposes that two family losses "stand out as the most disruptive and potentially stressful: the death of a spouse and the death of a child" (p. 177). Finding meaning for the loss as well as cognitively and emotionally adapting to the changes may prove to be an overwhelming challenge (Lieberman, 1989; Raphael, 1983; Weiss, 1988). Spousal bereavement involves coping with the grief as well as cognitively adapting to the role of single status (Lieberman, 1989). Parental bereavement also includes the loss of a role, a role that is unique and central to the parent's sense of self-identity and intricately interconnected with other bonds in their social world (Klass, 1988). Although both types of death represent the absence of a significant person and the loss of a core theme in the survivors' life (Raphael, 1983), the psychological adjustments for spouses will differ from those of parents (Lieberman, 1989). As Yalom (1989) writes, the death of a child is a "*project loss*, the loss of one's central organizing life principle, providing not only the *why* but also the *how* of life"; whereas the death of a spouse tends to portray more of an "*object loss*, the loss of a figure who has played an instrumental role in the constitution of one's inner world" (p. 132).

The meaning of both familial losses may also differ by the timing of such deaths in the life course (Rando, 1986c;

McGoldrick & Walsh, 1991). Later life is characterized as a time of personal, health and social losses (Baltes, Reese, & Lipsitt, 1980; Neugarten, 1970). With advancing age, adults may also be coping with retirement issues, reductions in income, health problems or fewer social contacts, as well as confronting their own mortality (Kalish, 1976; Kastenbaum, 1985). Thus, the impact of the death of a spouse or an adult child may be even greater for survivors in later life (Moss, Leshner, & Moss, 1987). The length of these relationships also suggests that lives have been more intertwined (Lieberman, 1989) and memories may be richer (Rosenblatt, 1983) which could further complicate the adjustment.

Most of the knowledge on later life bereavement is based on the extensive research on widowhood (Levav, 1982; Moss et al., 1987; Osterweis et al., 1984). The attention directed to this type of loss reflects the high proportion of widowed adults in American society, representing 50% of all women and 12% of all men aged 65 years and older (Stroebe et al., 1988). The death of a spouse has been identified as the most stressful life event, involving more psychological adjustment than any other (Holmes & Rahe, 1967; Lopata, 1979; see, also Stroebe et al., 1988; Osterweis et al., 1984 for reviews). Yet the majority of this research has primarily focused on the immediate reactions to widowhood (i.e., up to two years post loss; see Lehman et al., 1987, for review) for white middle-class women (McPherson, 1983; Osterweis et al., 1984; Stroebe & Stroebe, 1983). Recent evidence suggests that although bereavement may initially produce

intense responses, after two years older bereaved spouses appear to be resilient, returning to similar levels of functioning as older non-bereaved adults (Faletti, Gibbs, Clark, Pruchno, & Berman, 1989; Ferraro, 1986; Lund, Caserta, & Dimond, 1989; McCrae & Costa, 1988; Van Zandt, Mou, & Abbot, 1989).

Little is known about the consequences of later life parental bereavement (Levav, 1982; Moss et al., 1987; Rando, 1986c). Gorer (1965) has suggested that "the most distressing and long-lasting of all griefs it would seem is the loss of a grown child...the parents never get over it" (p. 121). Although the evidence is modest, it appears that for those parents who have lost an adult child, intense bereavement reactions persist for at least two or more years after the death (Fish, 1986; Florian, 1990; Leshner & Bergey, 1988; Rubin, 1990, 1992; Shanfield & Swain, 1984). Three attitudes may account for this absence of information: the sensitive nature of the topic may reflect a general reluctance to explore the painful process; older parents, often labelled as being in the post-parenting stage may appear to have no significant parental role; and the occurrence may be considered to be rare and of minimal importance for study (Moss et al., 1987). With the demographic projections of increased life expectancy, it would seem that more older adults may also experience such a death (Moss et al., 1987; Rando 1986c). As Moss et al. (1987) report "if a woman 65 or older has an adult son, there is a one in four chance that the son will die before the mother" (p. 211).

To understand the specific challenges of these two types of bereavement, Lieberman (1989) contends that it is time to look beyond their similarities and study their differences. Several researchers have examined the differential reactions to the loss of a spouse, child, and/or parent (Owen, Fulton, & Markusen, 1983; Sanders, 1980; Singh & Raphael, 1981), but only a few have attempted to compare across family losses at specific times in the life course (Lehman et al., 1987; Lundin, 1984; Perkins & Harris, 1990). Although it appears that distinct responses do occur, as yet, the effects of the loss of a spouse and a grown child have not been compared on multidimensional aspects of personal functioning for older adults.

Purpose and Research Questions

The purpose of this research is to investigate long-term adjustment to the death of significant family members during later life. In particular, two types of family deaths are considered: the loss of a spouse and the loss of an adult child. This study examines the effects on several aspects of personal functioning, two to fifteen years after the death and compares the responses of bereaved parents and bereaved spouses to those of non-bereaved older adults. Both male and female survivors are included to discover whether adjustment differs as a function of gender and/or the type of familial death experienced. Two broad questions will be addressed:

- 1) Are there differences in long-term adjustment between older bereaved spouses and older bereaved parents?

- 2) Are there differences in long-term adjustment between older men and older women who have experienced parental or spousal bereavement?

Definition of Terms

To prevent confusion in the interpretation of theory and research in this area of study, several terms need to be defined. "Loss" refers to the severing of significant attachment relationships, such as that of a spouse or child that triggers intense and prolonged distress (Weiss, 1988). "Bereavement" describes the objective situation of having lost a significant relationship through death (Osterweis et al., 1984; Stroebe et al., 1988).

The terms "mourning" and "grief" have often been used interchangeably throughout the bereavement literature (i.e., Bowlby, 1969, 1980; Freud, 1917/1957). "Grief" is defined as the emotional response elicited by the loss of a significant relation through bereavement (Stroebe et al., 1988). "Mourning" refers to the public face of grief or the actions and mannerisms of expressing grief in accordance with the mourning practices of one's culture (Parkes, 1986; Stroebe et al., 1988).

Considering these definitions, then, "bereavement reaction" refers to any psychological, physiological or behavioral response to the death of a significant person (Osterweis et al., 1984). The "bereavement process" is defined as a dynamic multidimensional process involving not only intense emotional distress, but also affecting the physiological and social

functioning of the survivors (Bowlby, 1980; Klass & Marwit, 1989; Osterweis et al., 1984, 1987; Parkes, 1986, 1988; Rando, 1986a; Sanders, 1980, 1989; Weiss, 1988). Finally, "adjustment" to bereavement describes the return to pre-bereavement levels of functioning (Hansson et al., 1988; Osterweis et. al, 1984, 1987; Parkes, 1986; Weiss, 1988).

Chapter II

Review of the Literature and Theoretical Framework

This review examines the literature on long-term adjustment to the loss an adult child or spouse in later life. The literature is organized as follows: 1) a summary of the bereavement theories; 2) research on comparisons across distinct types of familial bereavement; and 3) research on either spousal or parental bereavement for older survivors. Finally, the theoretical framework which guides this research is outlined.

Bereavement Theories

To explain the reactions and the process of recovery, many different theories have been advanced over the last century (see Bowlby, 1980; Hansson et al., 1988; Osterweis et al., 1984; Pine & Brauer, 1986; Raphael, 1983; Rubin, 1981; Sanders, 1989; Stroebe et al., 1988, for reviews). The most influential approaches that have shaped our cultural beliefs about the phenomenon of grief are the classical psychoanalytical model (Freud 1917/1957) and the attachment model (Bowlby 1969, 1980) (see Gray, 1988; Klass & Marwit, 1989; Rando, 1986b; Wortman & Silver, 1987, 1989, for reviews). These theoretical models and the extensions of Bowlby's work by Parkes (1972, 1986, 1988) and Weiss (1984, 1988) are reviewed. The conceptual literature on parental bereavement is also discussed.

Multiple Perspectives

The classical psychoanalytic model of bereavement is based on Freudian theory (Osterweis et al., 1984; Sanders, 1989;

Wortman & Silver, 1987, 1989). In a paper entitled "Mourning and Melancholia", Freud (1917/1957) first writes that mourning (i.e., normal grief) is the natural reaction to the loss of a loved one and describes grief as a "narcissistic" hurt similar to a painful wound. The task of overcoming the death involves "working through" the psychic turmoil by breaking down the psychological attachments with the deceased. Reflecting an intrapersonal perspective, Freud contends that the work of grief is the sole responsibility of the survivor who must withdraw from others to accomplish this detachment. Completion of the process occurs when the individual is freed from the loved object and is able to invest emotional energy in new relationships.

Although the normal grieving process is outlined in this model, melancholia (i.e., chronic depression) is the central focus of Freud's theoretical work (Sanders, 1989; Stroebe et al., 1988). From clinical observations of psychiatric patients, Freud introduces the notion that such pathological reactions may also be a consequence of the bereavement.

The attachment model of bereavement formulated by Bowlby (1969, 1980) moved the theory of grief to an interpersonal perspective by focusing on attachment relationships and the psychosocial consequences of their dissolution (Osterweis et al., 1984; Stroebe et al., 1988). Although Bowlby (1980) draws on conceptualizations from psychoanalytical theory, he shifts the paradigm incorporating principles from animal ethology and control theory to provide a connection with cognitive and

developmental psychology. Assuming that an inherent urge ties the infant to the mother for the primary function of protection from harm, Bowlby (1980) proposes that attachment behaviors develop to "maintain certain degrees of proximity to or communication with the discriminated attachment figure(s)" (p. 40). Over the course of infancy, childhood and adolescence, these behaviors lead to the formation of all adult attachment bonds and enduring attachment feelings which represent security.

The death of an attachment figure unwillingly severs this bond (Bowlby, 1980). As the individual struggles to retrieve the lost person, powerful attachment behaviors and feelings are evoked producing the phenomenon of mourning. Differing from Freud (1917/1957) who proposed that withdrawing from the deceased was the primary task, Bowlby contends that grief also involves the struggle for reunion that can never be and identifies that depression, anxiety, and anger are natural and necessary features of the process.

Based on these conceptualizations as well as research on spousal bereavement, Bowlby (1980) outlines four sequenced phases of mourning. The initial phase of numbness, most likely one of social withdrawal, reflects the survivor's shock and the persistent inability to accept the absence of the loved one. The second phase of yearning and protest portrays an individual suffering acute emotional distress and physiological stress. Displaying anger and an overwhelming preoccupation to re-establish the bond, the person may disrupt other social

relationships. When the bond is not renewed, the individual begins to accept that the loss is permanent and enters the phase of depressive withdrawal characterized by depression, apathy and pangs of grief. Struggling to redefine self and the new social reality, the person may seek and accept support from others. Over time the final phase of reorganization occurs, marked by the individual's ability to detach from the deceased and to invest in new goals and objects for gratification.

Parkes (1972, 1986, 1988) and Weiss (1984, 1988) have expanded Bowlby's (1969, 1980) attachment theory to the functioning of adults (Stroebe et al., 1988). To support their assumptions, both theorists have looked primarily to the evidence on widowhood which tends to reflect the consequences for women (e.g., Lopata, 1979; Parkes, 1970; Parkes & Weiss, 1983), limiting the generalizability of such conceptualizations to other types of bereavement. Parkes and Weiss present different approaches to explain the reaction to losses.

Parkes (1972, 1986, 1988) offers a cognitive perspective, suggesting that both similar and different reactions occur with major adult losses such as the death of a loved one, loss of a limb or losses associated with terminal illness. These life-change events are defined as "psychosocial transitions" which involve: 1) major revisions of the survivors' assumptions about the world; 2) consequences that are lasting rather than transient; and 3) little opportunity for preparation (i.e.,

unexpected loss) (Parkes, 1988). Such transitions may adversely affect physical and mental health.

Parkes (1986) believes that the basis of grief is "the resistance to change, the reluctance to give up possessions, people, status, expectations" (p. 31). Grief is a psychological process which involves the reviewing and restructuring of the survivors' psychosocial assumptions of their world. Elaborating on Bowlby's phases, four stages of grieving are: numbness, pining, disorganization and despair, and recovery (Parkes, 1986). Recognizing that adults' reactions may vary both in the form and the duration of each stage, recovery occurs when the survivor has accepted the loss and revised prior habits of action and assumptions. Differing from Freud and Bowlby, Parkes (1986) also suggests that some losses may never be completely resolved and that coping with the loss may best describe recovery.

Weiss (1984, 1988) primarily incorporates the assumptions of attachment theory (Bowlby, 1969, 1980). The disruption of four adult relational bonds which reflect the characteristics of childhood attachments may elicit intense grief reactions: the severing of the pair bond, of the parent-child bond, of the transference bond (i.e., a patient-client relationship), and of the persistent childhood bond. Unlike Parkes, Weiss (1988) contends that acute and prolonged grief only occurs when such adult attachments are severed.

Weiss (1988) maintains that after the loss of any adult

bond, the process of recovery most likely involves the movement through phases of grieving (i.e., similar to Bowlby, 1980). Most importantly, he proposes that three processes are operating: cognitive acceptance, emotional acceptance, and identity change. Cognitive acceptance involves the development of a satisfactory subjective explanation regarding the cause of the death. Emotional acceptance requires the gradual "neutralizing of memories...so that recall does not paralyze functioning" (Weiss, 1988, p. 47). Identity change describes the process of constructing a new image of self. For Weiss (1988), the concept "recovery" does not portray the actual outcome of bereavement; adaptation or accommodation appear to be more appropriate terms to infer that adults who have endured the loss of a significant person may never regain their original identity and emotional organization. Implying that such adaptation may be partial or incomplete, recovery is defined as the return of ordinary levels of personal and social functioning.

Convergent Perspectives

Despite these differences in the explanatory models of bereavement, there are many general assumptions in common (see, Osterweis et al., 1984; Raphael, 1983; Wortman & Silver, 1987, 1989, for reviews). For example, these theorists recognize that grief is the natural and expected reaction to the death of a loved one. Since Freud (1917/1957) wrote that grief was a "narcissistic" hurt which resembled a painful wound requiring time to heal, metaphors such as a "severe burn" (Bowlby, 1980),

"physical blow or injury" or "amputation" (Parkes, 1972, 1986) continue to be used. All models describe the phenomenon of grief as a complex constellation of reactions. Reflecting the dominant characteristics of these overlapping clusters of reactions, four phases or stages have been delineated and commonly named: shock, protest and yearning, despair and reorganization or recovery (Bowlby, 1980; Parkes, 1972, 1986; Weiss, 1988). Although Parkes (1986) and Weiss (1988) recognize that variability in reactions may occur, it is assumed that most adults progress through these phases in a linear fashion to recovery.

In all approaches, psychological distress or depression is the expected reaction as the grieving individual begins to accept the permanent absence of the loved one. Based on the conceptual work of Freud (1917/1957), subsequent models have adopted the assumption that the survivors must "work through" the distress or depression to achieve successful recovery (Bowlby, 1980; Parkes, 1972, 1986, 1988; Weiss, 1988). As Parkes (1988) suggests, the psychosocial transition requires the painful reviewing of the assumptive world. Weiss (1988) believes that emotional acceptance is all important and to accomplish this, the individual must confront the difficult memories, eventually neutralize these thoughts and develop a tolerance for such associations. According to these theorists, the goal of "working through" the grief involves both freedom from attachments to the deceased and emotional investment in new relationships. Bowlby (1980) proposes that reorganization is characterized by

detachment from the lost figure and "the capacity to make and maintain new love relationships" (p. 43). Similarly, Weiss (1988) contends that identity change may only occur when "the connection to the attachment figure is seen as part of past self rather than present self" (p. 47) and to accomplish this the survivor must commit to new relationships. Thus, the final outcome, not only involves disengagement from the lost person, but requires reinvestment or replacement with another relationship.

All these theorists assume that for most individuals, grief will eventually subside, the loss will be resolved or accepted and normal functioning will be resumed. Each model describes a final phase named either completion (Freud, 1917/1957), reorganization (Bowlby, 1980), recovery (Parkes, 1972, 1986) or adaptation (Weiss, 1988). It is interesting to note that both Parkes (1986) and Weiss (1988) are questioning the use of terms to portray the final outcome, suggesting that the survivors do not necessarily "get over the loss", but rather they "cope with it" or simply "get used to it". Adopting Freud's (1917/1957) belief that the end of the process occurs when enough time has passed, other theorists also have not specified the exact chronological time required to achieve recovery (Bowlby, 1980; Parkes, 1986, 1988). Weiss (1988), however suggests that the movement to adaptation may involve a substantial period of time.

Each theoretical framework identifies that pathological

reactions or morbidity may also be associated with the death of a significant person. For example, Freud (1917/1957) suggests that melancholia or chronic depression may be a consequence of the bereavement. In the attachment model of grief (Bowlby, 1969, 1980), extended periods of pervasive distress or depression not only portray the failure to recover, but also the absence of such reactions reflects pathological grief. Similarly, Weiss (1988) proposes that the presence of either chronicity (i.e., the persistence of the protest or despair phases) and/or compartmentalization (i.e., not cognitively attending to the loss) may mark the failure to recover. According to Parkes (1972, 1986), adverse reactions to the loss may take alternate forms, such as chronic grief, inhibited grief and delayed grief.

Applicability to Family Losses

The general assumptions of these explanatory models of bereavement have been primarily substantiated by clinical observations and empirical research on spousal bereavement (Klass, 1989; Rando, 1986b). This evidence tends to reflect the reactions and long-term consequences for women rather than men (Osterweis et al., 1984; Stroebe & Stroebe, 1983). Two questions need to be addressed: 1) How have these models explained the reactions and recovery for other types of familial bereavement? and 2) Are these models applicable to all types of survivors?

Considering the psychoanalytical model of bereavement, the predominant focus is that of the individual and the affective quality of the previous relationship with the deceased rather

than the nature of that relationship (Freud, 1917/1957). To understand this relationship and the subsequent affects on grief, Freud draws on the individual's perceptions of childhood experiences and earlier losses, indicating that prior ambivalent feelings towards the deceased are strongly associated with chronic depression and/or obsessive reproaches.

Reflecting the complexity of the bereavement process, Bowlby (1980) outlines five categories of variables that may influence mourning and the final phase of reorganization: 1) the identity and role of the person lost; 2) the age and the sex of the bereaved; 3) the causes and the circumstances of the loss; 4) the social and psychological circumstances affecting the bereaved about the time and after the loss; and 5) the personality structure of the bereaved (see p. 172).

Acknowledging that the interactions of these multiple factors pose great difficulty in identifying the effects of one category, Bowlby (1980) believes that the most influential category is probably the personality structure which represents the organization of early childhood attachment patterns and the mechanisms for coping with stressful situations. He suggests that all other variables are eventually mediated through the interaction with this structure.

Parkes (1986) presents an expansion of these categories emphasizing that the complexity of the psychosocial transition following bereavement requires not only prior knowledge of all

life experiences, but concurrent knowledge related to the event and subsequent knowledge of the impact during the process. The outcome "is related to the magnitude of the psychosocial transition, the extent to which it has been correctly anticipated and the supports and opportunities available" (Parkes, 1988, p. 62). While identifying that the nature of the attachment (i.e., spouse, child or parent) may yield different reactions, Parkes (1986) believes that the key to understanding bereavement may be acquired by studying the strength, the security, the reliance and the involvement in the previous relationship. For example, a prior ambivalent relationship may impede the process of recovery, not only leading to depression, but also producing alternating periods of intense anger and guilt.

Weiss (1984) identifies that bereavement reactions may vary by: 1) the type of attachment relationship lost, 2) the quality of the previous relationship, 3) the circumstances or the cause surrounding the death, and 4) the timing of the loss in the life course. A distinct type of threat is associated with each adult relational bond: 1) for the pair bond, the end of the security relationship; 2) for the parent-child bond, the end of the ability to protect another; 3) for the transference bond, the end of part of self; and 4) for the persistent childhood bond, the end of a security relationship (Weiss, 1988). Different meanings of the threat suggest that diverse personal and social elements in the grieving process should be present for the loss

of each adult relationship. Weiss (1988) also outlines the determinants that appear to block the process of adaptation:

1) the loss may make no sense which may produce excessive rumination; 2) ambivalence towards the deceased may intensify feelings of self-blame, guilt and remorse; 3) low self-esteem coupled with feelings of dependency may create a sense of hopelessness for the future; and 4) feelings of responsibility to the lost person may make the relinquishing of grief seem disloyal.

While recognizing that different kinds of familial losses may lead to a variety of bereavement outcomes, Bowlby (1980), Parkes (1972, 1986) and Weiss (1988) maintain that most adults appear to move through the four phases of grieving, eventually accept the loss and return to pre-bereavement levels of functioning. Bowlby (1980) proposes that the identity and the role of the deceased should affect survivors differently. Yet he believes that pathological mourning is usually associated with the death of immediate family members; "we still have too little information about the differential incidence of disordered mourning in adults for losses of these different kinds, though Parkes' evidence suggests that those who lose a spouse are at the greatest risk" (Bowlby, 1980, p. 177). Bowlby not only suggests that family losses may be studied as coherent wholes (i.e., attachment vs. non-attachment), but implies that focusing on spousal bereavement may provide a prototype for understanding all types of familial bereavement.

Parkes (1988) and Weiss (1988) begin to acknowledge that this model may not completely account for the parents' reactions to the death of a child. Based on the current empirical evidence, Parkes (1988) suggests that the death of a child may produce an emotional response that may be greater and longer in duration than the reaction to the death of a spouse. With the loss of a child, Parkes (1988) writes that it may be both "the nature and the quality of attachment that determines the intensity of grief, rather than the magnitude of the psychosocial transition that results" (p. 59). Weiss (1988) also recognizes that the determinants which impede the natural course of grieving appear to be more prevalent with parental bereavement and notes that "the grief that follows the death of a child seems peculiarly resistant to recovery" (p. 48). He proposes that the parents' sense of permanent commitment to the protection of the child may underlie these reactions.

Parkes (1988) and Weiss (1988) continue to draw exclusively on the predominant assumption of Bowlby's (1969, 1980) attachment theory to substantiate their position. Parkes (1988) believes that the sense of basic trust established in childhood attachment relationships affects the strength of all subsequent adult attachment relationships, even those with one's own children in the future. He suggests that parental grief may reflect this strength. Similarly, Weiss (1988) maintains that the emotional systems underlying all adult attachment relationships appear to

resemble those of early emotional systems in childhood attachment relationships. He contends that this assumption regarding the formation of adult attachment relationships "has proven indispensable to the understanding of the phenomena of marital separation and conjugal bereavement" (Weiss, 1988, p. 43).

Yet all traditional models grounded in the psychological developmental perspective of the child-parent relationship and supported by the research on widowhood do not appear to provide the foundation for explaining the bereavement process or long-term recovery for other types of familial losses (Klass, 1988, 1989; Klass & Marwit, 1989; Rando, 1986b). These models predominantly focus on the grieving individual and the quality of the prior relationship with the deceased. Limited attention is directed towards understanding the personal and social meaning of the nature of that relationship in the family and social context (Raphael, 1983; Walsh & McGoldrick, 1991). Also, Walsh and McGoldrick (1991) point out that the temporal context needs to be considered which "provides a matrix of meanings in which all behavior is embedded...changes in the present and future occur in relation to the past" (p. 7).

The conceptualizations and the empirical evidence supporting such assumptions address two distinct types of familial relationships. The theoretical perspective addresses the child-parent bond, a dependent relationship, yet the research is that of wife-husband bond, an interdependent relationship. Although early childhood attachments may have a strong influence on future

affectional bonds, the differences in both the nature and quality of these distinct familial relationships suggests that a change in meaning should occur over family social time. After adolescence, adults may formulate more complex structures of attachment patterns for different adult-adult and parent-child relationships which may complicate the bereavement process and long-term adjustment.

Conceptual Literature on Parental Bereavement

Adults who have experienced the death of a child appear to have great difficulty with accepting the loss, adjusting to the new social reality, breaking down their attachments to the lost child and investing emotional energy in new relationships (Hocker, 1988; Klass, 1988, 1989; Klass & Marwit, 1989; Moss, et al., 1987; Rando, 1986a, 1986b, 1986c; Raphael, 1983; Rubin, 1981). The process of cognitively accepting the loss may be complicated by the expectations of Western societies. Due to advancements in medical technology, death is now assumed to be a function of age and the commonly held belief is that the old die before the young (Kalish, 1976; Kastenbaum, 1985). Thus, the parent is expected to die before the child (Klass & Marwit, 1989; Moss et al., 1987; Rando, 1986b) and this belief is implicitly acknowledged by both the parent and the child (Moss et al., 1987). The untimeliness of the child's death appears to defy the laws of nature and the orderliness of the universe (Moss et al., 1987; Rando, 1986b; Raphael, 1983; Sanders, 1980), and thus for

the surviving parents the world may become "chaotic and unpredictable" (Moss et al., 1987, p. 213).

In addition, the societal expectations of being a functional adult are reflected by the ability to fulfil the appropriate obligations related to parenting (Klass, 1988, 1989; Rando, 1986b; Raphael, 1983). From the parent's perspective, the death of a child should not occur (Raphael, 1983) and when it does the parents feel that they have failed to meet the commitment of ensuring their child's safety (Edelstein, 1984; Klass, 1988, 1989; Klass & Marwit, 1989; Rando, 1986b, 1986c). Regardless of the age of the parent, such a death appears to violate their basic assumptions of being a competent adult in the family and in the social context (Rando, 1986b; Klass, 1988, 1989; Klass & Marwit, 1989). For older parents who believed that their child had been "reared successfully and safely through more dangerous times" (Rando, 1986b, p. 224), the death of a child in adulthood may be even more incomprehensible.

The distress and depression may be intensified and more persistent with the loss of the parent-child bond (Moss et al., 1987; Klass, 1988, 1989; Klass & Marwit, 1989; Rando, 1986b). Considering the uniqueness of this relationship, Benedek (1970) suggests that initially the child triggers unconscious memories for the parent: that of how one was parented and what it was like to be a child. Thus, the parent has multiple inner representations of each child reflecting the parent's best image of self and threatening the parent's worst image of self

(Benedek, 1970; Klass, 1988; Klass & Marwit, 1989). Through reciprocal interactions over time in the family context, the parent is constantly challenged with identification and differentiation of self with the child (Benedek, 1970). Parental grief may not only portray the reaction to the permanent absence of an attachment figure, but may also reflect the struggle to resolve the multiple inner representations of the lost child (Orbach, 1959; Klass & Marwit, 1989; Rubin, 1981, 1991). In this sense, the parent has lost a part of self that was intricately interconnected to the lost child (Klass, 1988, 1989; Klass & Marwit, 1989; Rando, 1986b; Raphael, 1983; Sanders, 1989). Looking to the changes in the parent-child relationship over time, Rosenblatt (1983) proposes that the memories of an adult child may be richer which could reflect more complex representations and may explain the increased duration of the grieving process for older parents.

These parents may also be grieving for physical reminders of self and others, their lost hopes and dreams for that child and the loss of their sense of continuity and immortality which the child may have symbolized (Hocker, 1988; Raphael, 1983; Rando, 1986b, 1986c; Moss et al., 1987; Sanders, 1989). As Edelstein (1984) suggests, the loss of this unique bond reflects not only the loss of oneself, but the loss of a connection with the future and the loss of beliefs regarding life, death and existential concerns. The expressions of grief do not seem to diminish with time for bereaved parents, instead the death appears to create a

life-long awareness of an empty historical track, readily triggered by associations with age or events that will never be for their dead child (Klass, 1988, 1989; Klass & Marwit, 1989).

Adjusting to the new social reality may prove to be a greater challenge for bereaved parents than widowed adults. Although a vital piece is missing in the family system, parents are often required to function in the same social environment and enact similar roles with the surviving children (Rando, 1986b). Moss et al. (1987) identifies that the reorganization within the family after such a loss may be problematic, "family interaction may evoke the image of the deceased child and his or her presence/absence may be deeply felt: both its comfort and its pain" (p. 215). With time, the deceased may have assumed additional roles beyond that of a child such as friend, companion, informant and caregiver (see de Vries, Dalla Lana, & Falck, in review; Moss et al., 1987; Rando, 1986c) and for the surviving parents, the loss of this major interactive regulator may pose enormous problems in managing their lives in an increasing complex society (Klass, 1988, 1989; Klass & Marwit, 1989). Older parents who have lived independently from the deceased child may experience great difficulty believing that the child is now permanently "not there" (Rando, 1986c).

Disconnecting from the lost child appears to be the most difficult expectation for bereaved parents to achieve (Klass, 1988, 1989; Klass & Marwit, 1989; Rando, 1986b, 1986c). The relationship does not end with the death of the child; such a

relationship may only be severed with the death of the parent (Benedek, 1970). Regardless of the involvement in the parental role (i.e., post-parental), Moss et al. (1987) stress that a parent always continues to be a parent. Rando (1986b) suggests that "detaching hopes and feelings from the child seems tantamount to giving up part of one self "(p. 49).

Finally, investing emotional energy in new relationships appears to reflect a different meaning for bereaved parents than for bereaved spouses (Rando, 1986b). For example, to replace a child presents a unique set of circumstances that differs from remarriage. For older parents, especially women, such a replacement poses a biological impossibility (de Vries et al., in review; Rando, 1986c). Considering other family members as possible substitutions for the lost child, Moss et al. (1987) believe that transferring expectations and affections to surviving siblings may produce additional tension and uncertainty in the reorganizational process. The loss of a married adult child may create strained relations with the remaining spouse and grandchildren. Intergenerational contacts may be reduced for older parents and prevent the possible emotional investment in the deceased child's offspring (Leshner & Bergey, 1988).

Bereavement reactions appear to be even more complex with the severing of the unique parent-child bond and may not follow the course of grieving described in the traditional models (Klass, 1988, 1989; Klass & Marwit, 1989; Rando, 1986b, 1986c). As Rando (1986b) points out "parental grief appears to

approximate commonly accepted descriptions of pathological mourning or unresolved grief" (p. 51). Several scholars in this area of study present integrated theories to allow for these apparent differences in adults' reactions to fall within the normal range of bereavement reactions (Rubin, 1981, 1992; Sanders, 1989). For example, Rubin (1981, 1992) proposes a conceptual framework incorporating the psychodynamic and personality-change models of bereavement. This two-track model of bereavement assumes that the reactions to all types of bereavement may be better explained by addressing the changes, not only in behavioral-psychological functioning but also, the internalized relationship to the deceased. Other researchers suggest that a distinct model of bereavement is necessary to understand the features of parental bereavement (Klass, 1988, 1989; Klass & Marwit, 1989; Rando, 1986b).

Emerging Model on Parental Bereavement

The complexity of parental grief is revealed by Klass and Marwit's (1989) work entitled "Toward a Model of Parental Grief", which has gone beyond Weiss's (1988) conceptualization of "protection of other" to explain the nature and quality of the parent-child bond. By adopting a multidisciplinary approach to understand the effects and the meaning of this relationship from the parent's perspective, Klass & Marwit (1989) have drawn on the conceptual and empirical literature regarding primates, human bonding, family systems theory, psychodynamic approaches to parenthood and pathological parenting.

Klass and Marwit (1989) stress that "the relationship to the child is one of the major constellations of meaning for the adult...for which the adult often willingly sacrifices other constellations of meanings" (p. 46). They propose that from the parent's perspective, the meaning of being a parent is related to a sense of competency, coupled with a sense of omnipotence (e.g., Benedek, 1970). These feelings are rooted in the sacred bond of obligation to other, the bond of identity that the child is born into and the creative bond that strengthens over time with continuous interactions between the parent and child in the context of the nuclear family (e.g., Turner, 1970). Klass & Marwit (1989) also suggest that a certain degree of ambivalence is natural in the interactive process of parenting. The existence of such feelings does not necessarily reduce the strength of this bond.

The loss of a child should reflect this same degree of complexity; the issues of parenting would appear to be the same issues in parental grief (Klass & Marwit, 1989). Grief is defined as "a disequilibrium in the social environment and a disequilibrium in the ongoing relationship with the inner representation of the child...resolution to grief is to find a new equilibria" (Klass & Marwit, 1989, p. 39). The conceptualization of sequenced phases involved in the grieving process is not evident in the parental model of grief, instead the parent is alternately struggling with the unique issues related to loss, experiencing the distress, accepting the reality

and adjusting to the environment. To achieve equilibria involves psychic reorganization and obtaining solace in a "world made poorer by the child's death" (Klass, 1988, p. 17). Drawing on the work of Volkan (1981), Klass and Marwit (1989) believe that the parents must transform and internalize the multiple inner representations of the ongoing relationship with the child, as well as develop strategies to manage existential difficulties. The resolution of parental grief is conceptualized as a major transformation: not only will the parent be forever changed, but the parent's world will never be what it once seemed to be, a piece will always be missing.

Considering adjustment or recovery, the developing model on parental grief differs greatly from the traditional models of bereavement. In attachment theory and the extensions to adulthood, recovery or adaptation involves the detachment or withdrawing of energy from the attachment figure; the loved object must be accepted as part of past self rather than present self (Bowlby, 1980; Parkes, 1986; Weiss, 1988). Identification with the attachment figure as a part of self, combined with compartmentalization is viewed as a failure to recover (Bowlby, 1980; Weiss, 1988). Alternatively, Klass and Marwit (1989) propose that resolution for bereaved parents involves identification, introjection and externalization in order to incorporate each of the multiple representations of the lost child into self.

Could this difference explain why parental bereavement seems to be peculiarly resistant to recovery in the commonly accepted models of bereavement? Examining the evidence from current empirical research that has compared parental and spousal bereavement may clarify whether or not distinct models are necessary to increase our understanding of the nature and extent of long-term adjustment.

Research on Comparisons across Distinct Types of Familial Bereavement

Few empirical studies have systematically compared distinct types of familial bereavement. To date, not one study has examined the long-term differential reactions to later life spousal or parental bereavement on multidimensional aspects of functioning. For example, Perkins and Harris (1990) evaluated only physical health consequences at different stages of the life course (i.e., young, middle-age and old) and for distinct familial losses (i.e., death of a spouse, child/child-in-law, sibling/sibling-in-law or parent). Drawing on the data from general social surveys, 1,735 bereaved adults who had experienced such a loss within a five year period were identified and compared to a non-bereaved control group. Perkins and Harris (1990) found that middle-aged adults (age ranged from 40-59 years) who had endured either the loss of a sibling/sibling-in-law or spouse reported poorer physical health. The older bereaved adults (ages ranged from 60-79 years) experienced very little, if any, difference in physical health.

In other comparative studies, older individuals have been included, yet comparisons across this age group have not been provided. For example, Sanders (1980) identified 102 bereaved adults (ages ranged from 18-64 years) and investigated the immediate grief response to the loss of a spouse, child or parent (i.e., average time since death was two months) with non-bereaved adults. Her findings indicated that the 14 parents who had suffered the death of a child (i.e., child's age at death ranged from 6 to 49 years) experienced the most intense grief and the widest range of reactions, with parents reporting greater somatization (i.e., sleep disturbances) and depression as well as intense feelings of anger and guilt. Regardless of whether the death was sudden or expected, parental bereavement appeared to result in an immediate loss of emotional control and a greater state of despair than other bereavements. Owen et al. (1983) compared the social-psychological adjustment to the death of a spouse, child or parent for 558 bereaved adults (median age of survivors: spouse = 62 years, parent = 47 years, adult child = 48 years). They discovered that parents who had suffered the loss of a child (median age at death = 17 years) expressed more pervasive grief responses that lasted longer than six months, although the exact duration of grief was not provided. These parents reported greater depression, guilt, anger, hostility, and physical complaints, as well as persistent rumination over memories and thoughts of the deceased than bereaved older spouses and adult children.

Looking beyond the first year of bereavement, some studies have evaluated the differential consequences associated with the loss of a child or spouse. For example, fifteen to eighteen months after a railway disaster, Singh and Raphael (1981) identified 24 bereaved spouses (mean age: men = 48 years, women = 36 years) and 19 bereaved parents (mean age: men = 59 years, women = 56 years). The average age of the child at the time of death was 23 years. Several measures were utilized to assess bereavement outcome, and it was found that parents were functioning at lower levels than spouses, with both mothers and fathers experiencing more difficulty resolving the loss and having greater psychological deterioration (i.e., depression). Mothers experienced more health-related problems and greater difficulty in resolving the loss.

Lehman et al. (1987) investigated the multidimensional aspects of adjustment four to seven years after the sudden loss of a spouse or child (i.e., 18 years or younger at time of death). When 39 bereaved spouses (i.e., mean age = 44 years) were compared to a matched control group, significant differences were found on several measures of general functioning, including greater depression, more psychological symptoms, poorer psychological well-being, poorer reactivity to good events and concerns about the future, as well as more stress with parental roles and friendship relations. Significant differences between 41 bereaved parents (i.e., mean age = 42 years) and non-bereaved parents were also found on some measures, indicating greater

depression, and stress with parenting and family relations. Nonsignificant trends were also found for the bereaved parents, suggesting greater hostility and phobic anxiety, poorer psychological well-being, as well as more concerns about the future. Lehman et al. (1987) concluded that the sudden death of a spouse produced more pervasive and long-lasting effects on general functioning than the sudden death of a child. It is interesting to note that although both the bereaved spouses and parents continued to ruminate over the cause of death and experienced painful thoughts or memories of the deceased, the parents expressed the highest frequency of these thoughts.

Eight years after both deaths, Lundin (1984) studied 78 middle-aged bereaved spouses and parents (i.e., ages ranged from 40 to 50 years at time of bereavement) and found that parents reported more pronounced grief reactions, as well as a higher degree of mourning (i.e., crying) than spouses. Parents also experienced more distress when thinking about their child (age at death unknown) and actively avoided recalling painful memories. Grief reactions associated with the cause of death (i.e., sudden vs. expected death) were further delineated, revealing that as a whole, adults who had suffered a sudden loss experienced greater grief. Although the sudden death of a child did not appear to intensify the parents' reactions over those of the spouses, significant differences were evident between the two groups. Spouses expressed more guilt feelings and memories related to the

deceased, while parents reported missing the deceased to a greater degree and experienced more child-related dreams.

These contrary findings may reflect the differences regarding the age of the deceased at death, the age of the survivors at bereavement and/or the various causes of death. Such results may also be due to the variations in the specific measures used to assess the bereavement outcome. For example, Singh and Raphael (1981) incorporated several instruments to measure general functioning, including scales to tap physical health, psychological health (i.e., Goldberg's General Health Questionnaire, 1974), and unresolved loss. Lundin (1984) utilized only one scale, the Texas Inventory of Grief (1982) to evaluate the long-term effects of bereavement, whereas Lehman et al. (1987) drew on a wide range of measures, selecting instruments that assessed mental health, feelings of well-being, perceived health status, as well as performance, satisfaction and strain in marital, parental, work, and social roles. Lehman et al. (1987) also included open-ended questions to measure the general state of life, current memories, conversations and thoughts about the loss.

The interpretation of these overall findings is complicated by the fact that such inconsistencies are also evident regarding the identification of other crucial variables. For example, the duration of bereavement differs substantially across these cross-sectional studies, with the time since death ranging from two months (Sanders, 1980) to eight years (Lundin, 1984).

In most studies, the age of the deceased at time of death has not been restricted. Only one investigation by Lehman et al. (1987) has focused on a specific age range and selected parents whose children were 18 years or less at time of death. Others have described the respondents' characteristics and identified the age of the deceased child as six to forty-nine years (Sanders, 1980), or reported mean ages of 17 years (Owen et al., 1983) and 23 years (Singh & Raphael, 1981). Some researchers have not provided any information about this variable (Lundin, 1984; Perkins & Harris, 1990). Accordingly, the ages of survivors at the time of loss also tend to be diverse, with some studies comparing middle-aged parents with older spouses (Owen et al., 1983; Sanders, 1980).

Attention paid to the cause of death also varies. Some researchers have not differentiated between sudden or expected deaths in their analysis (Owen et al., 1983; Perkins & Harris, 1990). Others have focused exclusively on accidental deaths, such as motor vehicle accidents (Lehman et al., 1987) or a railway disaster (Singh & Raphael, 1981). Only Lundin (1984) and Sanders (1980) have delineated their samples by cause of death and compared accidental and chronic illness losses on bereavement outcomes. Finally, most of these studies have not considered the differences that may be associated with gender (Owen et al., 1983; Lehman et al., 1987; Perkins & Harris, 1990). Although Sanders (1980) has attempted to account for the immediate differential responses of widows and widowers, only one study by

Singh and Raphael (1981) has compared the bereavement reactions across mothers, fathers, widows and widowers.

In addition, these studies suffer from other methodological problems. In some studies, comparisons have been conducted across a limited number of bereaved parents or spouses (Sanders, 1980; Singh & Raphael, 1981). Several researchers have not included matched control groups in their analysis (Lundin, 1984; Owen et al., 1984; Singh & Raphael, 1981). Considering these deficiencies, the results of such investigations may reflect the unique characteristics of the bereaved individuals studied, rather than demonstrate the impact of the type of family death.

In light of the modest evidence, it is possible that the loss of a spouse for middle-aged adults may produce more pervasive long-term consequences regarding health conditions (Perkins & Harris, 1990) or general functioning (Lehman et al., 1987) than other bereavements. On the other hand, potential reactions may be associated with the death of a child, such as increased feelings of guilt, anger and hostility (Owen et al., 1983; Sanders, 1980), greater depression (Owen et al., 1983; Sanders, 1980; Singh & Raphael, 1981), persistent painful memories of the deceased (Lehman et al., 1987; Lundin, 1984; Owen et al., 1983), and more difficulty resolving the loss (Singh & Raphael, 1981). Despite the methodological limitations, these findings suggest that differential reactions may exist and that such differences could be associated not only with the family death but also with the timing of that death in the life course.

Research on the Long-term Effects of Spousal and Parental Bereavement

To clarify whether distinct reactions occur as a function of the type of familial bereavement experienced, this section of the review focuses on the research that has specifically examined the long-term effects of the loss of a spouse or an adult child in later life. This literature is organized around two themes: 1) research on physical health consequences; and 2) research on mental health consequences.

Considering the extensive research on later life spousal bereavement, longitudinal studies provide the best information on the long-term consequences (Stroebe & Stroebe, 1983; Ferraro, 1986; Murrell, Himmelfarb, & Phifer, 1988). Large national surveys and smaller in-depth studies are most frequently represented (Murrell et al., 1988). Such studies will be the central focus of this review. Variations are evident in the methodological designs regarding: 1) the populations studied, 2) the sampling techniques, 3) the statistical procedures, 4) the time since the death, and 5) the measurement of outcome variables (see Stroebe & Stroebe, 1983; Lund, 1989, for reviews).

In comparison, the current information on the long-term effects for older parents who have suffered the death of an adult child is modest and limited in scope (Levav, 1982; Levav, Lubner, & Adler, 1988; Moss et al., 1987). The central factor most often attended to is the cause of death (de Vries et al., in review). Many methodological shortcomings are prevalent in this research.

Studies tend to be clinical in nature examining only small samples of bereaved parents with few investigations including matched controls for comparisons. The results on long-term adjustment are derived from cross-sectional and retrospective data, and the measures of physical and mental health consequences vary throughout the research. Thus, caution is advised in generalizing any conclusions to other populations.

The research on each theme is organized as follows: 1) a review of the research on spousal bereavement; 2) a review of the research on parental bereavement; and 3) a comparison between the two types of bereavement. The results on the long-term consequences for spousal bereavement will be interpreted to reveal if "patterns" exist, whereas, due to the methodological limitations, the findings on parental bereavement will be described as possible "trends".

Research on Physical Health Consequences

The Long-term Effects of Spousal Bereavement on Physical Health

Early research indicated an initial deterioration in physical health associated with increases in physical symptoms, illness episodes, use of psychotropic medication and hospitalization for the widowed adults (see Gallagher, Thompson, & Peterson, 1982; Parkes, 1986; Stroebe et al., 1988, for review). Assessing longer periods of time (i.e., over 1-3 years), current investigations have not substantiated such a deterioration for older surviving spouses beyond age-related

health difficulties (Clayton, 1974; Ferraro, 1986; Van Zandt et al., 1989).

Since subjective evaluations of health have been shown to be strongly associated with objective health indicators for older adults (Fillenbaum, 1979; Maddox & Douglass, 1973), many studies have looked to the effects of bereavement on perceived health status (i.e., self-rated health). Several investigations have identified the widowed shortly after the spouse's death and followed the bereaved over a period of time. For example, Clayton (1974) followed 90 bereaved spouses (average age 60 years) over thirteen months and discovered that these adults did not neglect their health or consider themselves to be in poorer health than non-bereaved persons. Lund et al. (1989) studied 108 widowed Mormons (mean age = 68 years) over the course of two years and found that in comparison to 85 non-bereaved older adults, the widows and widowers' perceptions of health changed at the same rate, with both groups experiencing relatively good health. Van Zandt et al. (1989) identified 50 rural bereaved adults (aged 55 years or older) and assessed changes in perceived health over three and a half years. Their results revealed that the bereaved spouses' health had improved slightly, whereas the non-bereaved counterparts had declined slightly.

Yet these studies have overlooked the health conditions prior to bereavement which may account for the subsequent changes in the adjustment period. Some researchers have included a pre-bereavement health measure in their assessment of the impact of

later life widowhood. For example, Heyman and Gianturco (1973) identified 256 men and women (aged 60-94 years) who were widowed within a three year study period from the Duke Longitudinal Study and found that both widows and widowers experienced only age-related deterioration, reporting no significant changes in health (i.e., attitudes and activities) after widowhood. Utilizing a national longitudinal survey, Ferraro (1986) compared 3,683 low income adults (aged sixty-five and older) who had lost a spouse between interviews with long-term widowed or married adults and reported that the effects of widowhood (i.e., after one year) on perceived health were minimal. Ferraro (1986) also observed that health optimism (i.e., evaluate health positively though experiencing more health-related problems) did not change by the experience of widowhood for either women or old-old persons (aged 74 years and older), with optimism actually increasing for old-old widows, while levels remained constant for old-old married women. In a ten year follow-up study of a national survey of adults (N = 13,380), aged 24 to 74 years, McCrae and Costa (1988) differentiated widowed persons between surveys from long-term married and long-term widowed persons. Considering only cross-sectional data, they compared older men and women (aged 65 years or older) across these groups and found that widowhood was not associated with poorer perceptions of health.

The Long-term Effects of Parental Bereavement on Physical Health

The effects on perceived health are not consistent in the available studies on later life parental bereavement. Only a few

studies have assessed a measure of self-rated health. For example, Florian (1990) examined the perceptions of health for 52 bereaved couples (mean age: fathers = 61 years, mothers = 57 years), two or eleven years after the death of an adult son in an Israeli war. When compared to non-bereaved parents of similar ages, the bereaved fathers and mothers' perceptions of physical health (i.e., ill or healthy) were poorer. Leshner and Bergey (1988) studied 18 elderly institutionalized mothers (mean age = 87 years) who had lost an adult child (whose age ranged from 38 to 67 years at time of death). The cause of death was not identified and the time since the loss varied from less than one year to twenty years. These mothers expressed only "fair" health (i.e., self-rated health) and reported that health difficulties associated with insomnia, nervousness and hip or other bone fractures had doubled since bereavement. Leshner and Bergey (1988) compared their results to other studies regarding the effects of institutionalization and age and concluded that the difficulties were unique for these bereaved mothers.

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, Shanfield and Swain (1984) studied 40 parents (mean age = 50 years) whose adult children (mean age at death = 25 years) had died in traffic accidents twenty-six months previously and found that the parents experienced more health complaints since the death. An association between gender and health-related

difficulties was discovered, with mothers expressing more problems than fathers. Parents whose children had died in a single driver, single car accident and complicated by the use of drugs or alcohol also reported more health complaints.

In a study examining the effects ten years after bereavement, Rubin (1990) compared 42 parents (mean age = 58 years) who had lost adult sons (mean age at death = 26 years) in an Israeli war with 13 middle-aged parents (mean age = 45 years) who had lost younger children (mean age at death = 1 year) to illness. 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 associated with a greater degree of sleep disturbances, appetite problems, other physical health symptoms and a reduction in their zest for living than younger parents. Although these problems subsided over the long-term course of bereavement, Rubin (1990) reported that these difficulties did not disappear completely. In both studies, the absence of a control group leaves open the possibility that these difficulties may reflect age-related health deterioration.

Not all the evidence available on later life parental bereavement substantiates such a relationship between the death of an adult child and the presence of health-related problems. Shanfield, Benjamin and Swain (1987) expanded their original study to include 24 bereaved parents (mean age = 63 years) who had lost their child (mean age at death = 38 years) in the last two to four years through long-term cancer. When the two

bereaved groups were compared, they found that the parents who had experienced an expected loss did not express any change in health complaints, while parents who had experienced a sudden, accidental death reported more health complaints. These results suggest that the cause of the death of the adult child may be a mitigating factor affecting the parents' physical health. To explain the differences between the bereaved parents, Rubin (1990) contends that "three factors that of the parent's stage of life, the child's age, and the circumstances surrounding the death function together, separately and in interaction" (p. 335).

A Comparison of Spousal and Parental Bereavement

For older survivors, the long-term effects of widowhood on perceived health status do not appear to be as devastating as suggested by the results of earlier research. One year or more following the death, widowed adults' perceptions of health (i.e., self-rated health) were similar to those of non-widowed adults (Clayton, 1974; Ferraro, 1986; Lund et al., 1989; McCrae & Costa, 1988). Not only did the older bereaved spouses consider themselves to be healthy, but some reported that their health had actually improved in comparison to non-bereaved older persons (Ferraro, 1986; Van Zandt et al., 1989).

In light of the evidence available, the long-term effects on physical health appear to vary with later life parental bereavement. Only two investigations provide subjective evaluations of health (Leshner & Bergey, 1988; Florian, 1990). Although these researchers have studied small samples of specific

bereaved parents and used different measurements, their findings suggest that the death of a grown child may have a negative pervasive impact, with older parents experiencing poorer health (Florian, 1990) or only "fair" health (Leshner & Bergey, 1988). Other studies have found that many health problems persist (Rubin, 1990; Shanfield & Swain, 1984) or actually increase (Leshner & Bergey, 1988) over the long-term course of adjustment to the death of an adult child. These problems for bereaved parents appear to be associated with sleep disturbances (Leshner & Bergey, 1988; Rubin, 1990), nervousness (Leshner & Bergey, 1988) and appetite problems (Rubin, 1990). With the studies being few in number, reflecting small samples and many lacking comparison groups, it is difficult to differentiate whether the responses of these parents are a consequence of the death of an adult child or the normal effects of aging.

Research on Mental Health Consequences

The Long-term Effects of Spousal Bereavement on Mental Health

Since Freud (1917) differentiated between mourning (i.e., normal grief) and melancholia (i.e., chronic depression), most of the research has continued to focus primarily on the presence or absence of depression to explain the mental health consequences for widowed survivors (see Gallagher, Thompson, & Peterson, 1982; Stroebe et al., 1988, for reviews). Looking to later life spousal bereavement, many of the studies previously cited also evaluated the effects on depression and found that both older men and women experienced higher levels in the first few months of

bereavement than older non-bereaved persons (Clayton, 1974; Lund et al., 1989; Van Zandt et al., 1989). These depressive reactions gradually declined for the bereaved spouses and became similar to those responses of non-bereaved adults over time (i.e., ranging from 13 to 42 months).

This pattern associated with a decrease in depressive reactions over time is substantiated by other longitudinal research. For example, Thompson, Gallagher, Cover, Gilewski and Peterson (1989) studied 211 bereaved spouses (aged 55 to 80 years) over thirty months and found that after the first year, depression had decreased for bereaved spouses and by the second year, these reactions were comparable to non-bereaved persons. Faletti et al. (1989) identified 251 bereaved spouses (aged 55 to 93 years) shortly after the death and discovered that depressive reactions of widowed men and women declined over the eighteen month interval. McCrae and Costa (1988) utilized the data from a ten-year follow-up national survey to compare long-term widowed and long-term married adults with those widowed between surveys. Their cross-sectional analysis revealed that for older adults (aged 64-74 years), depression did not vary across the three marital groups.

In addition to depressive reactions, some researchers have questioned the long-term effects of spousal bereavement on other indicators of mental health. Two of the previous studies cited investigated various dimensions of psychological symptoms. For example, Thompson et al. (1989) looked to nine dimensions of

psychopathology and found that older spouses in the first months of bereavement experienced greater anxiety and demonstrated more psychotic-like symptoms. After one year, many of these symptoms had decreased and by the second year, the widowed reported similar responses to those of older non-bereaved adults. One interesting result suggested that older women, regardless of marital status experienced more psychological distress than older men. Faletti et al. (1989) examined the impact of widowhood on psychological symptoms associated with somatization, anxiety and obsessive-compulsive and observed that older widows and widowers demonstrated a decline in symptoms over time, with few reporting mental health difficulties after eighteen months.

One study by Lund et al. (1989) examined the long-term effects of later life bereavement on life satisfaction. Their findings indicated that only a slight change in life satisfaction was experienced by the widowed adults who reported lower levels in the first few months of bereavement. Over time, the bereaved demonstrated an increase in life satisfaction, while the non-bereaved adults indicated a decrease. After two years, the differences between the two older groups were minimal.

Only two studies have assessed grief in the course of spousal bereavement. For example, Van Zandt et al. (1989) found that older widowed adults experienced greater grief in the initial months after the death than non-widowed older adults. Grief levels decreased in a similar fashion for both groups over three and a half years, yet their results suggested that grief

was still higher for the bereaved than for the non-bereaved. In a recent follow-up study to their longitudinal research, Thompson, Gallagher-Thompson, Futterman, Gilewski and Peterson (1991) examined the long-term effects on different dimensions of psychological distress for 123 bereaved spouses (mean age = 68 years). Although depressive reactions and psychopathological symptoms for the widowed were similar to the responses of non-widowed persons, grief reactions did not follow the same pattern. Thompson et al. (1991) noted that grief was still evident for widowed adults and that "the differences in the severity of self-reported current and past grief between these two groups remained for thirty months post lost" (p. 439). Substantiating their previous results, older women regardless of marital status endured more depressive and psychopathological symptoms than older men. Yet expressions of grief did not appear to be associated with gender. No significant differences were found between widows and widowers, suggesting that possibly the longing for a lost marital partner may be experienced in a similar manner by men and women.

The Long-term Effects of Parental Bereavement on Mental Health

Most studies on later life parental bereavement have primarily focused on grief reactions rather than the presence or absence of clinical depression. This approach to mental health consequences reflects the clinical research of Gorer (1965) who studied six bereaved parents and suggested that parental grief appeared to be intense and pervasive.

In the previous studies cited, Leshner and Bergey (1988) and Shanfield and Swain (1984) have used different measures of grief to assess the long-term effects of the death of an adult child. Their findings lend some support to Gorer's (1965) early results. For example, Leshner and Bergey (1988) concluded that after an extended period of bereavement (i.e., average years since child's death = 6 years), 18 institutionalized mothers demonstrated greater grief reactions when compared to the immediate responses reported by older widows on a similar measure (e.g., Gallagher, Breckenridge, Thompson, & Peterson, 1983). Twenty-six months following the accidental death of an adult child, Shanfield and Swain (1984) found that mothers and fathers continued to grieve intensely. Pronounced reactions were associated with the gender of the parent and the gender of the deceased child. Their findings revealed that the death of a grown daughter produced the greatest response for both parents, but overall the mothers experienced the most pronounced grief. Expanding this study to include parents who had experienced the anticipated loss of an adult child (i.e., death due to cancer), Shanfield et al. (1987) compared the two groups and found that 90% of the suddenly bereaved and 70% of those who had endured an expected death continued to grieve. This evidence suggests that anticipatory grief may have some effect on the subsequent reactions for bereaved parents.

Three studies have assessed psychological distress for older bereaved parents on the same global measure of grief (i.e., Grief

Experience Inventory; Sanders, Mauger, & Strong, 1979). For example, in a study of 112 bereaved parents of all ages, Fish (1986) identified parents who had lost an adult child (over 20 years of age) and organized the cross-sectional data to compare grief at various intervals of bereavement (i.e., less than 2 years, 2-4 years, 5 or more years after the death). He found that two to four years after the death, older mothers and fathers demonstrated greater congruency on the global measure of grief than younger parents, with older fathers experiencing the most pronounced reactions when compared to men of all ages and older mothers expressing similar high levels of intensity to younger mothers. Both parents reported pervasive rumination and preoccupation with thoughts and memories of their deceased child. Different dimensions were associated with gender, with fathers experiencing a greater sense of isolation, loss of control and death anxiety, whereas mothers expressed greater despair (i.e., depression), anger and depersonalization (i.e., numbness).

Utilizing retrospective data, Rubin (1990) found that at the initial time and ten years after the death of an adult son, older parents experienced more pronounced grief, including greater despair, depersonalization, guilt, rumination and somatization than younger parents. Rumination changed very little and continued to be pervasive over the ten years of bereavement. In a recent study, Rubin (1992) compared 102 parents who had lost an adult son in Israeli wars (i.e., 1973, 1982) with non-bereaved parents and found that differences in grief were associated with

the duration of bereavement and gender. The results revealed that recently bereaved parents (i.e., 4 years post loss) demonstrated greater grief than non-bereaved parents, with the long-term bereaved (i.e., thirteen years post loss) serving as the middle group reporting continued grieving to a lesser extent. Analyzing retrospective data, Rubin (1992) found that among the bereaved, mothers experienced greater "past" grief reactions associated with despair, anger hostility and somatization and a trend for "present" grief reactions to be more intense than fathers. Although Rubin's (1990, 1992) findings portray the unique consequences following the death of a grown son, these results lend support to the previous evidence suggesting that grief is intense and pervasive for older parents.

In conjunction with grief reactions, many of these studies have also looked at the multidimensional nature of mental health consequences. Two studies have assessed depression by using different measures. Leshner and Bergey (1988) reported that after an extended bereavement period (i.e., average time since death = 6 years), 83% of bereaved institutionalized mothers experienced clinical depression. These depression levels were significantly higher when compared to other nursing home residents. Shanfield and Swain (1984) found that 30% of the parents continued to experience depression twenty-six months after the sudden death of an adult child. When compared to the results of other studies, parents scored significantly higher than normative populations, but lower than psychiatric outpatient populations. Higher levels

of depression were associated with being a mother, fewer prior bereavement experiences and more problems of the child at the time of death (i.e., financial difficulties, relationship problems and depression). These results appear to substantiate the trend of persistent despair (i.e., depression) indicated on global measures of grief (Fish, 1986; Rubin, 1990, 1992). For mothers especially, persistent depression or despair appears to be a predominant characteristic over the long-term course of later life parental bereavement (Fish, 1986; Leshner & Bergey, 1988; Rubin, 1992; Shanfield & Swain, 1984).

Investigating the impact of bereavement on current anxiety, Rubin (1992) compared two groups of older bereaved parents (i.e., 4 years; 13 years, post lost) to non-bereaved parents and found that all surviving parents, regardless of the length of bereavement, continued to experience similar levels of anxiety that were greater than the non-bereaved parents. Gender differences were evident, with the mothers reporting more anxiety than the fathers.

Pervasive feelings of guilt was one reaction previously identified by Rubin (1990) on a global measure of grief. Shanfield and Swain (1984) measured guilt as a distinct aspect and also found that twenty-six months after the sudden loss, 42% of the parents continued to experience guilt. The quality of the parent-child relationship was associated with this reaction, with parents who reported a prior ambivalent relationship experiencing greater guilt feelings.

Looking to changes in the bereaved parents' perceptions of everyday living, Leshner and Bergey (1988) found that 69% of the bereaved institutionalized mothers believed their lives had changed drastically, expressing feelings of sadness, nervousness and loneliness. Many described their current life as being "full of pain" and as one mother phrased the bereavement experience "it's like having a stone in place of your heart" (Leshner & Bergey, 1988, p. 88).

Examining the long-term effects of bereavement on the meaning and purpose in life, Florian (1990) reported that regardless of the time since the death (i.e., post loss: 2 years, 11 years), older bereaved parents demonstrated similar responses, reporting significantly less meaning and purpose in life than non-bereaved counterparts. This lack of meaning for the bereaved was evident in work, in coping with problems and in feelings of uselessness. Such feelings extended into family and social relationships represented by lower scores on 'being loved' and 'raising children and the sense of continuity it brings' (Florian, 1990, p. 100). Both measures were associated with gender, with bereaved mothers expressing less meaning and purpose in life than bereaved fathers.

A Comparison of Spousal and Parental Bereavement

A consistent pattern appears to be evident regarding the long-term effects on depression as a consequence of later life spousal bereavement. Although levels were higher for all widowed persons in the first few months of bereavement, this depression

rarely reached clinical pathological levels (Clayton, 1974; Faletti et al., 1989; Lund et al., 1989; Thompson et al., 1989; Van Zandt et al., 1989). Over the course of bereavement, widows and widowers experienced a gradual improvement and indicated similar levels of depression when compared with older non-bereaved adults. The time required for the widowed adults to return to "normal" levels (i.e., similar to non-bereaved counterparts) varies in these investigations from thirteen months (Clayton, 1974), through eighteen months (Faletti et al., 1989), to two years (Lund et al., 1989), to two and a half years (Thompson et al., 1989; Thompson et al., 1991) or even three and a half years (Van Zandt et al., 1989).

A different trend appears to emerge for older bereaved parents who have lost a grown child. The analysis of retrospective data suggested that for both parents depression (i.e., despair) persisted over the course of bereavement (Rubin, 1990; Shanfield & Swain, 1984). Such reactions appeared to be significantly higher than comparable populations (Shanfield & Swain, 1984). Especially for mothers, pervasive depressive reactions were found to be a predominant characteristic two or more years after the death an adult child (Fish, 1986; Leshner & Bergey, 1988; Rubin, 1992; Shanfield & Swain, 1984). Although such reactions were still evident, the intensity appeared to subside over long-term bereavement (i.e., post lost: 10 years, 13 years, Rubin, 1990, 1992).

Only two studies have included a measure of grief to assess the effects of bereavement for older widowed survivors (Van Zandt et al., 1989; Thompson et al., 1991). Although after three and a half years, grief gradually declined for both older widows and widowers, such reactions were still greater for the widowed than non-bereaved persons (Van Zandt et al., 1989). Grief may persist and change form over the course of bereavement. Reporting continued levels of pervasive grief for older widow and widowers thirty months after the death, Thompson et al. (1991) suggest that maybe "the normal grief response may involve living with the grief long after the loss and learning to mentally compartmentalize distress associated with the loss and recognize appropriate times to express it" (p. 440).

Considering later life parental bereavement, a strong trend emerges suggesting that grief may never be resolved for those parents who have suffered the death of an adult child. Grief was evident two years after bereavement for both parents (Fish, 1986; Shanfield & Swain, 1984; Shanfield et al., 1987) and appeared to be pervasive four or more years after the loss (Fish, 1986; Rubin, 1992). Continued grief reactions were reported by older mothers six years after the death (Leshner & Bergey, 1988) and by older parents ten or more years post loss (Rubin, 1990, 1992). Persistent grief responses may be associated with gender; it appears that mothers experience more intense grief than fathers (Fish, 1986; Leshner & Bergey, 1988; Rubin, 1992; Shanfield & Swain, 1984).

An understanding of the multidimensional aspects of mental health consequences of spousal bereavement is limited (see Thompson et al., 1991, for review). Only changes associated with psychological symptoms and life satisfaction have been evaluated. Both dimensions reflect a similar pattern to that of depressive reactions for older widowed survivors. Over the course of time (i.e., two years post loss), bereaved spouses reported similar responses to that of non-bereaved persons on psychological symptoms (Faletti et al., 1989; Thompson et al., 1989; Thompson et al., 1991) and on life satisfaction (Lund et al., 1989).

Diverse aspects related to psychological well-being have been examined for older parents, suggesting that different emotional reactions may occur with the loss of a grown child. Rumination or the preoccupation of thoughts and memories of the child was consistent for both mothers and fathers and remained constant over the long-term course of bereavement (Fish, 1986; Leshner & Bergey, 1988; Shanfield & Swain, 1984). Persistent feelings of guilt also appear to be a characteristic of later life parental bereavement (Rubin, 1990; Shanfield & Swain, 1984). These responses varied in intensity by the previous parent-child relationship (i.e., ambivalence) and the circumstances surrounding the death (Shanfield & Swain, 1984). High levels of anxiety have been identified for older parents thirteen years after the loss of a grown child (Rubin, 1992). A lack of meaning or purpose in life may be a consequence of such a loss which does not appear to improve over the long-term for surviving parents

(Florian, 1990). Feelings of meaninglessness filtered into many realms reflected in their work, their ability to cope with problems and their family social relationships. For older bereaved parents, these pervasive psychological reactions may best be described as portraying "a crumbling sense of the meaning and stability of life" (Fish, 1986, p. 426).

Theoretical Framework

One of the major problems in this area of study is the use of different terms to describe the end-point of bereavement (Osterweis et al., 1984, 1987; Wortman & Silver, 1987, 1989). Throughout the theoretical literature, the concepts used such as completion (Freud, 1917/1957), reorganization (Bowlby, 1969, 1980), recovery (Parkes, 1972, 1986), adaptation (Weiss, 1988) and equilibria (Klass & Marwit, 1989) reflect somewhat different meanings. Generally, the outcome of bereavement is believed to be the return to previous levels of functioning (Hansson et al. 1988; Osterweis et al., 1984, 1987; Wortman & Silver, 1987, 1989).

Considering the theoretical approaches presented in this review, Weiss (1988) has stressed the importance of understanding the product of recovery as well as the process of bereavement (see Hansson et al., 1988) and identifies various aspects of personal and social functioning that should return to some degree for adult survivors. Weiss's (1988) theoretical extension of the attachment theory of grief (Bowlby, 1969, 1980) will be used as the framework to guide this research.

Weiss (1988) believes that when an important attachment relationship is severed "the individual is likely to have been changed" (p. 44). He points out that the concept of "recovery" appears to be an inappropriate description of the long-term outcome of bereavement. "Adaptation", "accommodation" or "degree of damage" reflecting the possible change in the person's identity and emotional organization of self may be more accurate terms (Weiss, 1988, p. 44). Acknowledging that the bereavement process could require several years or more and then be partial or incomplete, the end-point of bereavement for adults may be understood as the return of ordinary levels of personal and social functioning. Weiss's (1988) criteria for examining the extent of effective personal functioning for adult survivors are:

- 1) to give energy to everyday life, i.e., effective functioning in everyday life is identified as the ability to invest in the present and to adequately meet current challenges;
- 2) to experience psychological comfort, i.e., effective functioning is described as the freedom from disturbing thoughts and feelings associated with pain and distress;
- 3) to experience gratification, i.e., effective functioning requires experiencing satisfaction and pleasure from current and anticipated life events;
- 4) hopefulness regarding the future, i.e. effective functioning requires a positive sense of the future and to plan, as well as care about future plans (p. 44).

The limitations of this theoretical framework have been discussed in the preceding review on bereavement theories. By including both types of familial survivors and attending to possible gender differences, this research is examining Weiss's formulations to reveal if such assumptions account for the long-term consequences associated with both parental and spousal bereavement in later life.

The Hypotheses

The general hypotheses are derived from the conceptual framework provided by Weiss (1988). Specific hypotheses are also advanced, not only to capture the multidimensional aspects of personal functioning for older adults, but also to facilitate comparisons with other empirical findings on bereavement outcomes (see also Osterweis et al., 1984; Lund et al., 1989). These sub-hypotheses are deduced from key notions identified in the theoretical literature, as well as from indicators of psychological well-being assessed in the empirical research.

From the preceding discussion of the bereavement literature, it is expected that two to fifteen years after the bereavement, older bereaved adults will demonstrate to some degree lower levels of effective personal functioning than non-bereaved adults. Among the bereaved, the overall expectations are that older parents who have experienced the death of an adult child will differ significantly from older widowed adults on all four aspects of personal functioning.

The following hypotheses are proposed:

H1: Bereaved parents will express less effective functioning in everyday life than bereaved spouses.

H1a: Bereaved parents will express less self-efficacy than bereaved spouses.

H1b: Bereaved mothers will express less self-efficacy than bereaved fathers.

H1c: Bereaved parents will express poorer perceived health status than bereaved spouses.

H1d: Bereaved mothers will express poorer perceived health status than bereaved fathers.

H2: Bereaved mothers will express greater psychological discomfort than bereaved widows.

H2a: Bereaved women whether widows or mothers will express greater depression than bereaved widowers or fathers.

H2b: Bereaved mothers will express greater depression than bereaved widows.

H3: Bereaved parents will express less gratification with life than bereaved spouses.

H3a: Bereaved parents will express less satisfaction with life than bereaved spouses.

H3b: Bereaved mothers will express less satisfaction with life than bereaved fathers.

H4: Bereaved parents will view the future as being more hopeless than bereaved spouses.

H4a: Bereaved parents will express greater fatalism than older bereaved spouses.

H4b: Bereaved parents will express greater vulnerability than bereaved spouses.

H4c: Bereaved mothers will express greater vulnerability than bereaved fathers.

H4d: Bereaved parents will express less perceived ability to plan and care about future plans than bereaved spouses.

Chapter III

Method

Sample and Data Collection

The sample for this research was drawn from a national study, "Americans' Changing Lives: Wave 1, 1986" (ACL) which was conducted by the Institute for Social Research at the University of Michigan (House, 1986). In this survey, a multi-stage area probability sample design was utilized to obtain a study population that represented noninstitutionalized adults, aged 25 years or older who resided in the U.S. Older adults and African-Americans were disproportionately sampled (i.e., they were sampled at twice the rate of whites under 60 years of age). The total sample included 3,614 adults, a response rate of 68%. The respondents participated in face-to-face interviews which required an average of 86 minutes to complete. The structured interview included both open and close-ended questions to assess sociological, psychological, mental health and medical aspects of daily living (also see Umberson, Wortman, & Kessler, 1992, for a description of the survey).

The data on demographic characteristics and stressful life experiences (i.e., the death of a family member and the duration of bereavement) were used to select the sample for this study. Initially three distinct groups of older adults were identified: 1) bereaved parents of adult children who had never experienced the death of a spouse ($N = 71$); 2) currently bereaved spouses who were parents and had never experienced the death of a child

or a spouse at a prior time ($N = 211$); and 3) non-bereaved married adults (i.e., first time marriages) who were parents and had never experienced either the death of a child or another spouse at any time ($N = 407$). Further selection of the bereaved respondents was limited to those adults who were 55 years or older at the time of bereavement and who had experienced the loss two to fifteen years prior to the interview.

This selection procedure provided two bereaved groups which were used in subsequent analyses: 41 parents (men = 19, women = 22); and 143 spouses (men = 31, women = 112). A non-bereaved group of adults ($N = 407$; men = 164, women = 243) was also included for comparison with the bereaved respondents. The mean and ranges of ages of the bereaved parents, bereaved spouses and non-bereaved was 71.1 (60 - 84 years), 73.2 (59 - 92 years) and 68.3 (61 - 92 years), respectively. The average education was 9.3 years for the bereaved parents, 10.6 years for the bereaved spouses and 11.4 years for the non-bereaved counterparts. Overall, the total sample was 81.2% Caucasian, 17.3% African-American, 1% American Indian, .2% Asian and .3% Mexican American.

For the bereaved respondents, the time period since the death of a child or spouse ranged from 2 to 15 years, with parents reporting, on average, 6.4 years and spouses reporting, on average, 7.5 years. Regarding the expectedness of the loss, 65% of the widowed respondents reported that the death was expected for some time, while only 32% of the parents reported that the death of their child was expected.

Measures

Although the structured interview of the larger study included both open and closed-ended questions, only data on the closed-ended items were available for analyses. To test the hypotheses, demographic data, indicators of psychological well-being, and items on self-rated health, fatalism, planning for the future and the ability to complete plans were used to construct appropriate indices (see Appendix A, for all items). Reliability coefficients assessing the internal consistency of each index were computed for the entire sample, as well as for each distinct group. If alpha coefficients were found to be low, factor analyses were performed to identify and eliminate those items that were not contributing to the overall variance.

Independent Variables

Bereavement. Familial bereavement was delineated into three distinct categories: parental bereavement refers exclusively to the experience of loss associated with the death of an adult child in later life; spousal bereavement refers exclusively to the experience of loss associated with the death of a spouse in later life; and no bereavement refers exclusively to no experience with either the death of an adult child or a spouse at any point in time. Bereavement was measured as a nominal variable and coded '1' for parental bereavement, '2' for spousal bereavement, and '3' for no bereavement.

Gender. Gender was measured as a nominal variable, so that 1 = males and 2 = females.

Dependent Variables

Psychological adjustment refers to four aspects of effective personal functioning as proposed by Weiss (1988). To operationalize these aspects, indicators of psychological well-being as well as items on self-rated health and planning ability were used.

To give energy to everyday life. Effective functioning involves investment in the present, with adequate energy to meet current challenges (Weiss, 1988). This aspect of personal functioning was evaluated by self-efficacy and perceived health status.

1. Self-efficacy. Self-efficacy, or a sense of personal competency, refers to the beliefs of the individual that he or she can successfully perform certain actions (i.e., Bandura, 1977; see Gecas, 1989, for review). In the ACL data, a 6-item Self-Efficacy Index was available to measure self-efficacy which was an adaptation of two existing scales and reflected two dimensions of self-efficacy: 3 items on self-esteem to assess the respondents' judgements of self-worth (i.e., The Self-Esteem Scale; Rosenberg, 1965); and 3 items on mastery orientation to evaluate the degree of control that the respondents believe they have over forces affecting their lives (i.e., Mastery Scale; Pearlin, Lieberman, Menaghan, & Mullan, 1981). Respondents were asked to indicate how strongly they agreed or disagreed with these six statements when applied to themselves using a 4-point Likert scale (i.e., 1 = strongly agree, 2 = agree somewhat,

3 = disagree somewhat and 4 = strongly disagree). The internal consistency, as measured by the coefficient alpha was reported to be .67 for this composite index in the ACL sample.

The internal consistency of the 6-item index was assessed for this study sample, yielding an alpha coefficient of .62.

Factor analysis was performed on these six items using a varimax method of rotation. Two factors emerged with 4 items loading on the first factor and 2 items loading on a second factor (see Appendix B, Table 1 for the 6 items and factor loadings on the total sample). For these analyses, only the four items (e.g., 2 items on self-esteem and 2 items on mastery) that contributed to the variance on the first factor were used to construct a Self-Efficacy Index. Further analyses confirmed that this 4-item index was the most reliable measure for all three groups. Total summed scores were averaged so that the higher the score, the greater the self-efficacy. The coefficient alpha was .64.

2. Perceived health status. Perceived health involves a subjective evaluation, by the individual, of overall health status. A single composite index was constructed to measure perceived health status based on three 5-point Likert items. Respondents were asked to rate their current overall health status by answering three questions: in general, how satisfied are you with your health?; how would you rate your health at the present time?; and how much are your daily activities limited in any way by your health or health-related problems. Responses to these items were coded, so that an average score of '1'

indicated low levels of perceived health to '5' which indicated high levels of perceived health. The coefficient alpha was .82 for this 3-item index in this study sample.

To experience psychological comfort. Effective functioning involves freedom from distressing thoughts and feelings (Weiss, 1988). This dimension was assessed by depression.

3. Depression. Depression refers to the perceived thoughts and/or feelings of the individual that reflect psychological distress or sadness. The measure of depression was based on a Depression Symptoms Index. This condensed, 11-item version was originally developed by Kohout, Berkman, Evans and Cornoni-Huntley (1983) who modified the 20-item Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977) (as cited in Umberson et al., 1992). The Likert scale contained items to assess depressive symptoms associated with feelings of loneliness and sadness as well as general listlessness. Respondents were asked to indicate how often they had experienced such items during the last week, from 1 (hardly ever), 2 (often) and 3 (most of the time). In large-scale epidemiological studies, the full 20-item CES-D scale has been shown to be consistently reliable and valid (Radloff, 1977). Kohout et al. (1983) have compared their shortened, 11-item version to that of the complete CES-D and reported a high correlation of .95 (as cited in Umberson et al., 1992). The alpha coefficient was reported to be .83 in the ACL sample. In this analysis, total index scores were summed and averaged, so that a higher score

indicated greater psychological distress. In this study sample, the coefficient alpha was .77 for the CES-D index.

To experience gratification. Effective functioning requires deriving pleasure or satisfaction from the events of life (Weiss, 1988). This aspect was assessed by life satisfaction.

4. Life satisfaction. Life satisfaction involves the subjective evaluation (e.g., the ratings of pleasure or gratification) of the experiences of his or her life. A shortened, 4-item Life Satisfaction Index of Campbell, Converse and Rodgers' Scale (1976) was available in the ACL data. On this 4-point Likert scale from '1', strongly agree to '4 ', strongly disagree, respondents were asked to indicate how strongly they agreed or disagreed with the statements: my life could be happier than it is now (reversed); these are the best years of my life; as I look back on my life I am fairly well satisfied; and I would not change my past life if I could. In the ACL sample, the alpha coefficient was reported to be .57.

The internal consistency of this 4-item index was assessed for this study sample, yielding a relatively low alpha coefficient of .51. Thus, an additional item was included from the structured interview which asked respondents to indicate how satisfied they were with their lives as a whole, ranging from 1 (completely satisfied) through to 5 (not at all satisfied). This item was coded as a 4-point Likert item. A Pearson's correlation matrix was computed on these five items, indicating that the responses to the statement "I would not change my past life if I

could" were not highly related to those on the other four items. Factor analysis revealed that these remaining four items all loaded on a single factor (see Appendix B, Table 2 for loadings in the total sample). Further analyses confirmed that this 4-item Life Satisfaction Index was the most reliable index for both bereaved and non-bereaved groups. Responses were coded so that '1' indicated not very satisfied or strongly disagree to '4' that indicated completely satisfied or strongly agree. Total summed scores were averaged and used in these analyses, so that higher scores represented greater life satisfaction. The coefficient alpha was .58.

To view the future as hopeful. Effective functioning requires a positive sense of the future and the ability to plan and care about such future plans (Weiss, 1988). This dimension of effective personal functioning was assessed by fatalism, vulnerability and the ability to plan.

5. Fatalism. Fatalism refers to the perceived beliefs of the individual that the future is predetermined and unalterable. A 4-item Index was available in the ACL data to measure fatalism. This 4-point Likert index included items to assess whether life events or conditions were inevitable. Respondents were asked to indicate the extent to which they agreed or disagreed with these statements, from 1 (strongly agree) to 4 (strongly disagree). The internal consistency, as measured by the coefficient alpha was reported to be .77 for this index in the ACL sample. For these analyses, the responses were coded so that '1' represented

strongly disagree to '4' which represented strongly agree. Total summed scores were averaged, such that the higher the score the greater the fatalism. In this study sample, the alpha coefficient was .74.

6. Vulnerability. Vulnerability refers to the perceived beliefs of individuals that they, as well as others, are capable of being harmed. A 2-item Vulnerability Index constructed by Lehman et al. (1987) was used. On a 4-point Likert scale, respondents were asked to indicate how strongly they agreed or disagreed with the two statements: I worry bad things will happen to me; and I worry that something bad will happen to one of my loved ones. The coefficient alpha reported for this index was .69 in the ACL sample. In these analyses, responses were coded so that '1' represented strongly disagree to '4' which represented strongly agree. Total summed scores were averaged and used so that higher scores indicated greater vulnerability. The internal consistency, as measured by the coefficient alpha was .68 for this sample.

7. Ability to plan. Ability to plan refers to the perceived ability, by the individual, to plan for future events and to carry out such plans. Two separate measures were used in these analyses. Future planning was measured by a single item from the ACL data. Respondents were asked whether or not they were the type of person who planned for the future. Responses were coded so that '1' represented no or rarely and '2' represented yes. The ability to complete plans was measured by two items from the

structured interview. These items focused on whether or not the respondents believed their pre-arranged plans were usually carried out as expected, and whether they felt pretty sure that their lives had worked out as desired. In this analysis, a single composite index was computed by summing across these forced-choice options so that the higher the score, the greater the ability to complete pre-arranged plans.

Control Variables

Several variables were considered as control variables in these analyses (see Appendix A, for all of these items). Sociodemographic variables of race, age and education were included. Age and education were used as continuous measures. Due to the limited number of respondents who were American Indian (1%), Asian (.2%) or Mexican American (.3%), race was coded as a dummy variable with 1 = Caucasian and 0 = other. Family characteristics regarding the number of children, age of the eldest child and total family income were also included. The number of children and the age of the eldest child were represented as continuous variables. Total family income or the total income from all possible sources, before taxes was categorized from '1' to '10', with '1' indicating less than \$5,000 per year through to '10' indicating \$80,000 or more per year. This variable was used as a continuous measure.

Other additional losses were measured by three forced-choice items from the structured interview. These items asked the respondents to indicate whether or not they had experienced the

death of a parent or step-parent, the death of a close friend or relative, or some other trauma in the last three years. The responses were summed across the losses and coded, so that 0 = no losses through to 3 = 3 losses.

In the separate analyses of the bereaved adults, two variables were considered as controls, expectedness of loss and time since the loss. Expectedness of loss was measured by an item which asked the bereaved respondents to indicate whether the death was totally unexpected or had been expected for some time. This measure was coded as a dummy variable, so that 0 = expected and 1 = unexpected. Time since the loss was measured by an item from the structured interview that asked respondents to indicate the year of the death. These responses were coded as number of years since the loss and ranged from 2 to 15 years.

Preliminary Analyses and Analysis Strategy

Prior to testing the hypotheses, preliminary analyses were conducted: 1) to examine the univariate distributions of the control and dependent variables; 2) to determine which control variables were to be included in the subsequent analyses; and 3) to assess the relationship between the dependent variables. Initially, these analyses were performed on the total study sample of bereaved and non-bereaved adults ($N = 591$). Similar analyses were carried out to examine the bereaved study sample of adults ($N = 184$) separately, when the variables of expectedness of loss and time since the loss were considered as controls.

Preliminary Analyses on the Total Study Sample

The univariate distributions of the control variables were significantly skewed for education, age, income, the number of children, and the number of other losses (see Appendix C, Table 1 for ranges, means and standard deviations for the total study sample). For example, the distribution of age was skewed towards younger years, family incomes clustered around lower levels, the number of children was skewed to fewer children and the number of other losses clustered around values of 0 and 1, while education was skewed towards more years of schooling. The distribution of the age of the eldest child approximated that of a normal curve. The distribution of the number of children demonstrated significant kurtosis and was more peaked than that of a normal distribution. For example, 105 respondents had one child, 188 respondents had two children and 140 respondents had three children. Kurtosis was also significant for family income, with the distribution being flatter than that of a normal curve. The majority of the respondents (63.5%) reported an income of \$19,999 or less in the last year which breaks down in the following manner; 84 respondents (14.2%) had an income of \$15,000 to \$19,999, 109 respondents (18.4%) had an income of \$10,000 to \$14,999, 123 respondents (20.9%) had an income of \$10,000 to \$4,999, and 59 respondents (10%) had an income of less than \$5,000. Overall, these distributions are not unexpected considering that this sample represents older men and women of which the majority (79.7%) are unemployed (e.g., retired).

The univariate distributions of the dependent variables were significantly skewed for perceived health, self-efficacy, life satisfaction, fatalism, and completed plans, with scores clustering around higher values (see Appendix C, Table 1 for ranges, means and standard deviations for total study sample). The distribution of depression and vulnerability scores were skewed towards lower values. Regarding planning for the future, 444 respondents (75.1%) reported that they were the type of person who plans for the future. Kurtosis was significant for completed plans and only marginally significant for perceived health and vulnerability, with the distributions being flatter than that of normal curves. Kurtosis was only marginally significant for depression as well, but the distribution of scores was more peaked than that of a normal distribution.

On the whole, these older men and women had relatively high levels of perceived health, self-efficacy, life satisfaction and low levels of depression and vulnerability. Although these respondents expressed a high degree of fatalism, most men and women planned for the future and carried out their pre-arranged plans. Perhaps these men and women responded in socially desirable ways; such responses are not considered unusual for older populations. For example, due to unfamiliarity with formal evaluations and a certain amount of skepticism regarding questions of self-disclosure, older adults are more likely to respond in socially approved directions or to answer with

"no opinion" or "don't know" than reveal their actual feelings or health status (see McPherson, 1983, for review).

Several statistical procedures were used to determine which variables were to be included as controls. The characteristics of the total study sample by group are presented in Appendix C, Table 2. A Chi-square analysis was performed to compare the three groups on race. A significant relationship was found, such that 77.6% of the bereaved spouses and 87.5% of the non-bereaved respondents were Caucasian while only 46.3% of the bereaved parents were Caucasian ($\chi^2(1) = 35.10, p < .001$). Oneway analyses of variance were used to compare the three groups on age, number of children, age of eldest child, education, income and the number of other losses in the last three years. Significant differences were found on age ($F(2,588) = 35.26, p < .001$), age of the eldest child ($F(2,586) = 29.76, p < .001$), education ($F(2,588) = 9.16, p < .001$), and income ($F(2,588) = 37.86, p < .001$) (see Appendix C, Table 2 for means, standard deviations and Scheffe multiple comparison tests). A nonsignificant trend was indicated between the three groups on the number of children, suggesting that bereaved spouses had fewer children than bereaved parents or non-bereaved respondents ($F(2,588) = 2.47, p < .10$). There were no significant differences between these groups on the number of other losses experienced in the last three years ($F(2,588) = 1.31, p = .27$).

Pearson's correlations also confirmed the above associations and further revealed that the age of the respondent and the age

of the eldest child were highly correlated ($r = .63$, $p < .001$; see Appendix C, Table 3). Thus, the effects of age, race, education, income and the number of children were controlled for in the subsequent analyses on the total study sample. The age of the eldest child was excluded given the correlation with the age of the parent.

To assess the strength of the relationship between the dependent variables, a Pearson's correlation matrix was computed on the total scale scores. Although some degree of correlation was expected and found, no two scales were so highly related to warrant collapsing into composite measures (i.e., $r = -.48$ was the highest association found, see Appendix C, Table 4). Bartlett's test of homogeneity of variance was performed and showed nonsignificant results on all dependent variables, indicating that homogeneity of variance was evident.

Preliminary analysis on the Bereaved Study Sample

In the analyses examining the bereaved adults separately, the distributions of number of children, other losses and income were skewed towards lower values as for the total study sample, while the distributions of age, education and age of the eldest child were not significantly skewed and did not demonstrate significant kurtosis (see Appendix C, Table 5, for ranges, means and standard deviations for the bereaved study sample). Most of the dependent variables were significantly skewed in a similar manner as found for the total study sample (see Appendix C, Table 5). Marginal kurtosis was also evident for the distributions of scores on

vulnerability and the ability to complete plans indices, yet the distribution of the scores on the perceived health index and depression did not demonstrate kurtosis for the bereaved adults.

In addition to the dependent variables previously examined, the ACL data provided a measure of overall adjustment to the loss which was also evaluated in these separate analyses. On this single item, bereaved respondents were asked to indicate how well they had dealt with the death and the changes as a result of that loss (see Appendix A for item). The average score was 3.06 ($SD = .99$), where the possible range was 1 to 4. The distribution of scores was significantly skewed towards higher values, with the majority of the respondents (73.3%) reporting that they had dealt quite well with the death and the subsequent changes.

Oneway analyses of variance compared the bereaved parents and spouses on age, number of children, age of eldest child, education, income and other losses. Significant differences between these adults were found on education ($F(1,182) = 4.38$, $p < .05$), income ($F(1,182) = 5.25$, $p < .05$) and number of children ($F(1,182) = 4.56$, $p < .05$) (see Appendix C, Table 2 for characteristics of bereaved respondents). A nonsignificant trend was observed between the two groups on age ($F(1,182) = 3.13$, $p < .10$). No significant differences were evident regarding the age of the eldest child or other losses experienced in the last three years. A Chi-square analysis was used to compare the two

groups on race and revealed a significant association between race and type of bereavement, such that 76.2% of the spouses were Caucasian and only 46.3% of the parents were Caucasian ($\chi^2(1) = 12.07, p < .001$). Further pre-testing was conducted by performing analyses of covariance on all dependent measures. Only age, education and race were found to be significant covariates and were controlled for in the subsequent analyses.

Time since the loss and expectedness of loss were also considered as control variables. To compare the two bereaved groups on the expectedness of loss, a Chi-square analysis was conducted and indicated a significant association, with 65% of all spouses reporting that the death had been expected, while only 32% of the parents reported an expected death of a child ($\chi^2(1) = 14.47, p < .001$). Expectedness of loss was also included as a control variable. Due to the range of years since the time of the death (e.g., 2 to 15 years), it is conceptually relevant to delineate the bereaved respondents into two distinct categories: 1) those who had experienced the loss 2 to 5 years prior to the interview and 2) those who had experienced the loss 6 to 15 years prior to the interview. Time since the loss was examined as an additional independent variable in these analyses.

A Pearson's correlation matrix was computed on the indices totals for the bereaved study sample. As expected, some degree of correlation was evident (see Appendix C, Table 6). The measures of self-efficacy and depression were found to be more highly related than others ($r = -.55, p < .001$). A factor

analysis was performed on all items of these two indices by using a varimax method of rotation. The results confirmed the use of these measures as separate aspects in these analyses. Bartlett's tests were performed and yielded nonsignificant results on all dependent variables, demonstrating that homogeneity of variance was evident.

Analysis Strategy

Although normality and equal cell sizes were not present, these violations do not appear to be a serious limitation if the variances are found to be homogeneous (Glass & Stanley, 1970; Kerlinger, 1986). Analysis of variance is a fairly robust statistical procedure and such significance tests are only adversely affected when both heterogeneity of variance and differences in the sizes of experimental groups are present (Kerlinger, 1986). Thus, for the total study sample of bereaved and non-bereaved adults, the hypotheses were tested as follows: Chi-square analyses were used to test whether there was an association between bereavement, gender and future planning; and 2(Gender) X 3(Bereavement) ANOVAs covarying age, race, education, income and the number of children were performed to test all other hypotheses.

To examine the independent effects of time since the loss, and to control for the expectedness of loss, the two groups of bereaved adults were compared on all the dependent variables described above. Chi-square analyses were used to assess whether there was an association between bereavement, gender, time since

loss and future planning. On all other dependent measures, 2 (Gender) X 2 (Bereavement) X 2 (Time since loss) ANOVAs covarying age, race, education and expectedness of loss were conducted. A similar three-factor ANCOVA was performed on the scores of the adjustment measure.

In addition, two distinct sets of exploratory analyses examined the bereaved parents ($N = 41$) and the bereaved spouses ($N = 143$) individually on all dependent measures. These analyses allowed for a fuller examination of the effects of family characteristics on bereavement outcomes. To assess the effects of gender of the respondent with expectedness of loss, number of children, number of sons or daughters and age of the eldest child, a series of two-factor ANCOVAs were performed. For the bereaved parents, the effect of the gender of the deceased child was also evaluated.

Chapter IV

Results

The results of the tests of the major hypotheses are presented in this section. On each of the four aspects of personal effective functioning (Weiss, 1988), the findings are organized and reported in the following manner: 1) the results of the comparisons across the bereaved groups, and the non-bereaved control group ($N = 591$) and the findings of the comparisons across the two bereaved groups ($N = 184$); and 2) the results of the exploratory analyses which examined bereaved parents ($N = 41$) and bereaved spouses ($N = 143$) separately.

Effective Functioning in Everyday Life

Comparisons Between Groups

Hypothesis 1 predicted that scores on measures of effective functioning in everyday life would be lower in the bereaved group, especially for bereaved parents than in the non-bereaved group. Sub-hypotheses H1a through to H1d predicted that this effect would be evident on measures of self-efficacy and perceived health for the bereaved parents, and that bereaved mothers would demonstrate lower levels of perceived health and self-efficacy than bereaved fathers.

Table 1 presents the means and the standard deviations for the bereaved and non-bereaved groups on the these measures. For the total study sample, two-factor (Bereavement X Gender) ANCOVAs conducted on the scores of the self-efficacy and perceived health

Table 1

Means and Standard Deviations of Effective Functioning in
Everyday Life For Bereaved and Non-bereaved Adults

	Men			Women			Total by group	
	n	M	SD	n	M	SD	M	SD
<u>Self-efficacy</u>								
Parents	19	3.51	.65	21	3.06	.70	3.28	.71
Spouses	31	3.50	.61	108	3.31	.57	3.35	.58
Non-bereaved	158	3.33	.65	238	3.26	.65	3.29	.65
Total by gender	208	3.37	.65	367	3.26	.63	3.30	.64
<u>Health</u>								
Parents	19	3.51	1.14	22	3.11	1.19	3.29	1.17
Spouses	31	3.47	1.31	112	3.46	1.00	3.46	1.02
Non-bereaved	164	3.51	.99	243	3.60	.92	3.56	.95
Total by gender	214	3.50	1.02	377	3.53	.96	3.52	.98

showed that education and income were significant covariates on both measures. Income ($\underline{b} = .03$, $\underline{p} < .001$; $\underline{b} = .04$, $\underline{p} < .001$, respectively) and education ($\underline{b} = .03$, $\underline{p} < .05$; $\underline{b} = .05$, $\underline{p} < .05$, respectively) were positively associated with self-efficacy and perceived health. The analysis on the self-efficacy scores yielded a main effect for gender ($\underline{F}(1,564) = 5.28$, $\underline{p} < .05$), with women reporting lower levels of self-efficacy than men. A main effect for group ($\underline{F}(2,564) = 3.65$, $\underline{p} < .05$) was also evident. Although a Scheffe multiple comparison test indicated that these groups did not significantly differ from each other at the $\underline{p} < .05$ level, it appeared that widowed adults reported greater self-efficacy than non-bereaved adults. A nonsignificant trend for a gender by group interaction ($\underline{F}(2,564) = 2.51$, $\underline{p} = .08$) was observed, suggesting that the bereaved mothers had lower self-efficacy than bereaved fathers. On the perceived health index, no significant effects for group or gender were present, nor was there any indication of a group by gender interaction. Overall, these results do not provide substantial support for the hypotheses.

In the separate analyses across the bereaved groups, three-factor (Bereavement X Gender X Time since loss) ANCOVAs were conducted on the scores of self-efficacy and perceived health measures. The only covariate that was found to be significant was education which was positively related to self-efficacy scores ($\underline{b} = .03$, $\underline{p} < .05$).

Table 2 displays the means and standard deviations of the self-efficacy index by bereavement, gender and time since loss for the bereaved sample. On the self-efficacy measure, the analysis once again yielded a main effect for gender ($F(1,167) = 10.49$, $p < .001$), with bereaved women reporting lower self-efficacy than bereaved men. There were no significant effects for group, time since the loss, or any two-way interactions. A nonsignificant trend for a three-way interaction between group, gender and time since loss ($F(1,167) = 3.62$, $p = .06$) was observed, suggesting that 6 to 15 years after the loss of an adult child, mothers may experience lower self-efficacy than other bereaved adults. Once again, on the measure of perceived health, no significant effects for group, gender or time since loss were found and there was no evidence of any interactions.

Analyses Within Bereaved Groups

In the exploratory analyses examining bereaved parents, two-factor ANCOVAs were performed to assess the effects of gender with expectedness of loss, gender of the deceased child, number of surviving children, number of sons or daughters and the age of the eldest child on self-efficacy and perceived health measures. The results showed that education ($\beta = .06$, $p < .05$) was related to self-efficacy scores, while age ($\beta = .06$, $p < .05$) was associated with perceived health scores. All analyses conducted on self-efficacy scores consistently demonstrated a main effect for gender at the $p < .01$ level, with mothers reporting lower

Table 2

Means and Standard Deviations of Self-Efficacy by Bereavement,
Gender and Time Since Loss For Bereaved Adults

	<u>2 - 5 years</u>			<u>6 - 15 years</u>			<u>Total</u>	
	n	M	SD	n	M	SD	M	SD
<u>Men</u>								
Fathers	8	3.34	.76	11	3.64	.57	3.51	.65
Widowers	17	3.50	.59	14	3.50	.65	3.50	.61
All men	25	3.45	.63	25	3.56	.61	3.51	.62
<u>Women</u>								
Mothers	13	3.25	.66	8	2.75	.68	3.06	.70
Widows	39	3.16	.58	69	3.39	.55	3.31	.57
All women	52	3.18	.60	77	3.32	.60	3.27	.60
<u>Total by time since loss</u>	77	3.27	.62	102	3.38	.60	3.33	.61

levels of self-efficacy than fathers. No other main effects were found on either of these measures. Only a two-factor (Gender X Gender of the deceased child) ANCOVA performed on perceived health scores revealed a significant two-way interaction ($F(1,36) = 5.04, p < .05$). Oneway ANOVAs showed that of those parents who had experienced the death of a son, mothers ($M = 2.92, N = 16$) reported poorer perceived health than fathers ($M = 3.76, N = 14; F(1,28) = 4.48, p < .05$; see Appendix D, Table 1, for all means and standard deviations).

For widowed adults only, the results of two-factor ANCOVAs conducted on the self-efficacy and perceived health scores did not consistently reveal significant covariates. On the self-efficacy index, all analyses demonstrated a main effect for gender at the $p < .05$ level, with widows expressing lower self-efficacy than widowers. A two-factor (Gender X Number of children) ANCOVA performed on perceived health scores showed a main effect for the number of children ($F(1,136) = 6.32, p < .05$), such that bereaved spouses with 1 to 2 children ($M = 3.28, N = 81$) reported poorer perceived health than those with 3 or more children ($M = 3.69, N = 62$). No other significant effects or interactions were found on these measures.

Psychological Discomfort

Comparisons Between Groups

Hypotheses 2, 2a and 2b predicted that scores on a measure of psychological discomfort (i.e., a depression index) would be greater for bereaved women in comparison to bereaved men and the

non-bereaved control group. It was expected that bereaved mothers would experience greater depression than widowed women.

Table 3 provides the means and standard deviations for the bereaved and non-bereaved adults on this index. A two-factor (Bereavement X Gender) ANCOVA performed on the scores of the depression index (CES-D) revealed that education ($\beta = -.02$, $p < .001$) was the only significant covariate. The results indicated a main effect for gender ($F(1,555) = 6.81$, $p < .01$), with women reporting greater depression than men regardless of bereavement. There was no main effect for group, and no evidence of a group by gender interaction. On the whole, these findings do not provide substantial support for the hypotheses.

Table 3

Means and Standard Deviations of Depression For Bereaved and Non-bereaved Adults

	Men			Women			Total by group	
	n	M	SD	n	M	SD	M	SD
Parents	18	1.31	.34	18	1.56	.42	1.44	.39
Spouses	30	1.39	.37	105	1.43	.33	1.42	.34
Non-bereaved	160	1.32	.28	235	1.37	.30	1.35	.29
Total by gender	208	1.33	.30	358	1.39	.32	1.37	.31

A three-factor (Bereavement X Gender X Time since loss) ANCOVA was performed on the CES-D scores of the bereaved respondents separately and showed again that education ($b = -.02$, $p < .01$) was a significant covariate. Only a nonsignificant trend for gender ($F(1,159) = 2.26$, $p = .07$) was observed, suggesting that bereaved women may experience greater depression than bereaved men. No significant effects for group or time since loss were present and there was no indication of any interactions.

Analyses Within Bereaved Groups

For the bereaved parents alone, the series of two-factor ANCOVAs conducted on the CES-D scores showed that age ($b = -.02$, $p < .05$) influenced depression. A two-way factor (Gender X Number of Children) ANCOVA indicated a significant effect for gender ($F(1,31) = 4.97$, $p < .05$), with mothers ($M = 1.56$, $N = 18$) reporting higher levels of depression than fathers ($M = 1.31$, $N = 18$). In all other analyses, a nonsignificant trend for gender at $p < .10$ level was observed. No significant effects for any of the other independent variables were present and there was no evidence of any two-way interactions.

In the separate examination of widowed adults, the two-factor ANCOVAs performed on CES-D scores demonstrated that education ($b = -.02$, $p < .01$) was associated with depression. Only one two-factor (Gender X Number of children) ANCOVA yielded any significant results, revealing a main effect for the number of

children ($F(1,128) = 4.18, p < .05$). Widowed adults who had 1 to 2 children ($M = 1.47, N = 74$) experienced greater depression than those who had 3 or more children ($M = 1.37, N = 61$). It is of interest to note that there was no evidence of any significant effects or nonsignificant trends for gender and no indication of any interactions in these analyses.

Gratification

Comparisons Between Groups

Hypothesis 3 predicted that scores on a measure of gratification would be lower in the bereaved group, especially for bereaved parents than in the non-bereaved group. Sub-hypotheses H3a and H3b predicted that this effect would be evident on a measure of life satisfaction for the bereaved parents, and that bereaved mothers would express lower levels of life satisfaction than bereaved fathers.

Table 4 presents the means and standard deviations of the total study sample on the life satisfaction measure. A two-factor (Bereavement X Gender) ANCOVA conducted on life satisfaction scores of these three groups demonstrated that only the covariate of income ($b = .02, p < .05$) significantly influenced the scores on this measure. The results indicated a main effect for group ($F(2,560) = 4.46, p < .05$). Scheffe multiple comparisons (at $p < .05$) revealed that bereaved spouses reported lower levels of satisfaction with life than non-bereaved adults. There were no significant effects for gender and no

group by gender interaction. These findings do not provide support for the hypotheses.

Table 4

Means and Standard Deviations of Life Satisfaction For Bereaved and Non-bereaved Adults

	Men			Women			Total by Group	
	n	M	SD	n	M	SD	M	SD
Parents	19	3.12	.68	22	2.75	.67	2.92	.70
Spouses(1)	28	2.79	.51	106	2.75	.54	2.76	.53
Non-bereaved(2)	158	2.98	.58	238	2.98	.59	2.98	.59
Total by gender	205	2.96	.59	366	2.90	.59	2.92	.59

1, 2 significant group differences on Scheffe at $p < .05$

For the bereaved adults, a three-factor (Bereavement X Gender X Time since loss) ANCOVA performed on life satisfaction scores showed that none of the covariates significantly influenced life satisfaction. No main effects for group or gender were found, but a nonsignificant trend for time since the loss ($F(1,163) = 3.27, p < .10$) was observed, suggesting that those adults who had experienced the loss 2 to 5 prior to the time of the interview expressed lower life satisfaction than

those adults who had experienced the loss 6 to 15 years prior to the interview. Table 5 displays the means and standard deviations on life satisfaction by bereavement, gender and time since loss for bereaved study sample. Although no two-way interactions were present, a significant three-way interaction between gender, group and time since the loss ($F(1,163) = 3.98$, $p < .05$) was indicated. To examine the simple main effects, two-factor (Bereavement X Time since loss) ANOVAs were performed on life satisfaction scores of men and women separately and revealed a significant interaction between bereavement and time since loss for women only ($F(1,120) = 4.10$, $p < .05$). Oneway ANOVAs further showed that widowed women who had experienced the loss 2 to 5 years prior to the interview reported lower life satisfaction than widowed women who had experienced the loss 6 to 15 years previously ($F(1,120) = 4.02$, $p < .05$).

Analyses Within Bereaved Groups

In the separate analyses examining only the bereaved parents, two-factor ANCOVAs conducted on life satisfaction scores only age ($b = .03$, $p < .05$) emerged as a significant covariate. No significant effects for gender, expectedness of loss, gender of the deceased child or any other family variables were evident and there was no indication of any interactions.

For the widowed adults alone, the analyses on scores of the life satisfaction index showed only time since the loss ($b = .20$, $p < .05$) emerged as a significant covariate. No significant effects or interactions were revealed in any of these analyses.

Table 5

Means and Standard Deviations of Life Satisfaction by
Bereavement, Gender and Time Since Loss For Bereaved Adults

	2 - 5 years			6 - 15 years			Total	
	n	M	SD	n	M	SD	M	SD
<u>Men</u>								
Fathers	8	3.00	.67	11	3.20	.71	3.12	.68
Widowers	15	2.82	.36	13	2.75	.66	2.79	.51
All men	23	2.88	.48	24	2.96	.71	2.92	.60
<u>Women</u>								
Mothers	14	2.82	.73	8	2.63	.58	2.75	.67
Widows	37	2.56	.50	69	2.86	.53	2.75	.54
All women	51	2.63	.58	77	2.83	.54	2.75	.56
<u>Total by time</u> <u>since loss</u>	74	2.71	.56	101	2.86	.58	2.80	.58

Hopefulness for the Future

Comparisons Between Groups

Hypothesis 4 predicted that scores on measures of hopefulness for the future would be lower in the bereaved group, and especially for the bereaved parents, than in the non-bereaved group. Sub-hypotheses H4a through to H4d predicted that this effect would be present on measures of fatalism, vulnerability, planning for the future and ability to complete plans, with bereaved parents reporting greater fatalism, greater vulnerability, and lower levels of planning and completing pre-arranged plans. It was expected that bereaved mothers would express greater vulnerability than bereaved fathers.

Table 6 provides the means and standard deviations of fatalism, vulnerability and the ability to complete plans for the bereaved and non-bereaved groups. For the total study sample, two-factor (Bereavement X Gender) ANCOVAs were performed on the scores of fatalism, vulnerability and ability to complete plans indices. On the fatalism measure, education ($\beta = -.05$, $p < .001$), race ($\beta = -.21$, $p < .01$) and income ($\beta = -.03$, $p < .05$) were shown to be significant covariates. On the vulnerability index, education ($\beta = -.04$, $p < .05$) emerged as a significant covariate. On the ability to complete plans index, education ($\beta = .04$, $p < .001$), age ($\beta = .01$, $p < .05$) and income ($\beta = .03$, $p < .05$) were found to be significant covariates. The analyses showed no main effects for group on all these indices. A main effect for gender was present only on the measures of

Table 6

Means and Standard Deviations of Hopefulness for the Future
For Bereaved and Non-bereaved Adults

	Men			Women			Total by group	
	n	M	SD	n	M	SD	M	SD
<u>Fatalism</u>								
Parents	18	3.49	.50	22	3.33	.58	3.40	.55
Spouses	31	3.18	.76	110	3.19	.63	3.19	.66
Non-bereaved	163	2.95	.75	239	3.11	.76	3.04	.76
Total by gender	212	3.03	.75	371	3.15	.71	3.10	.73
<u>Vulnerability</u>								
Parents	19	1.89	.92	22	2.43	1.04	2.18	1.01
Spouses	30	1.88	.78	111	2.14	.90	2.08	.88
Non-bereaved	163	1.89	.78	239	2.10	.87	2.01	.84
Total by gender	212	1.89	.79	372	2.13	.89	2.04	.86
<u>Ability to Complete Plans</u>								
Parents	19	3.37	.83	22	3.05	.84	3.20	.84
Spouses	31	3.52	.57	112	3.22	.76	3.29	.73
Non-bereaved	164	3.21	.80	243	3.28	.78	3.25	.79
Total by gender	214	3.27	.78	377	3.25	.77	3.26	.78

fatalism ($F(1,572) = 4.73, p < .05$) and vulnerability ($F(1,573) = 10.68, p < .01$), with women reporting higher levels of fatalism and vulnerability than men regardless of bereavement.

Only one significant interaction between gender and group was evident on the measure of ability to complete plans ($F(1,580) = 3.45, p < .05$). Oneway ANOVAs further revealed that widowed women reported lower levels of completing pre-arranged plans than widowed men ($F(1,141) = 6.17, p < .001$).

Chi-square analyses indicated no association between gender and future planning, but revealed a significant relationship between bereavement and future planning ($\chi^2(1) = 7.19, p < .05$). Non-bereaved men and women (78%) reported a greater tendency to plan for the future than either bereaved parents (68%) or bereaved spouses (68%). The overall findings of these analyses on the measures of hopefulness for the future do not provide substantial support for all the hypotheses.

In the comparison across the two bereaved groups, three-factor (Bereavement X Gender X Time since loss) ANCOVAs were conducted on the scores of measures of fatalism, vulnerability and ability to complete plans. On the fatalism measure, education ($\beta = -.05, p < .001$) was found to be a significant covariate. Age ($\beta = -.03, p < .05$) emerged as a significant covariate in the analysis on vulnerability scores. Education ($\beta = .04, p < .05$) was shown to significantly influence the scores on ability to complete plans. A main effect for gender was found on vulnerability ($F(1,170) = 4.26, p < .05$), with bereaved women

($M = 2.18$, $N = 133$) reporting greater vulnerability than bereaved men ($M = 1.89$, $N = 49$). No other significant effects or interactions were present on either this measure or the fatalism measure.

Table 7 presents the means and standard deviations on the measure of ability to complete plans by bereavement, gender and time since loss for the two groups of bereaved adults. The analysis performed on the scores of ability to complete plans indicated main effects for gender ($F(1,172) = 8.17$, $p < .01$) and time since the loss ($F(1,172) = 4.14$, $p < .05$), but no main effect for group. Bereaved men expressed greater ability to complete plans than bereaved women. Also, adults who had experienced the loss 6 to 15 years prior to the time of the interview reported carrying out more pre-arranged plans than those after the bereavement time period of 2 to 5 years (see Table 7). Although no two-way interactions were found, a nonsignificant trend for a three-way interaction between group, gender and time since loss ($F(1,172) = 3.37$, $p = .07$) was noted, suggesting that 6 to 15 years after the loss, mothers may experience lower levels of completing pre-arranged plans than other bereaved adults.

Chi-square analyses were used to test whether there was an association between bereavement, gender, time since the loss and future planning. The results indicated no significant relationship between any of these independent variables and future planning.

Table 7

Means and Standard Deviations of Ability to Complete Plans by Bereavement, Gender and Time Since Loss For Bereaved Adults

	<u>2 - 5 years</u>			<u>6 - 15 years</u>			<u>Total</u>	
	n	M	SD	n	M	SD	M	SD
<u>Men</u>								
Fathers	8	3.25	.89	11	3.45	.82	3.37	.83
Widowers	17	3.59	.51	14	3.43	.65	3.52	.57
All men	25	3.48	.65	25	3.44	.71	3.46	.68
<u>Women</u>								
Mothers	14	3.14	.77	8	2.88	.99	3.05	.84
Widows	39	2.92	.84	73	3.38	.66	3.22	.76
All women	53	2.98	.82	81	3.33	.71	3.19	.77
<u>Total by time since loss</u>	78	3.14	.80	106	3.36	.71	3.27	.75

Analyses Within Groups

For the bereaved parents, the two-factor ANCOVAs performed on the scores of fatalism and vulnerability indices showed that education ($\beta = -.08$, $p < .01$) was negatively associated with fatalism, and age ($\beta = -.07$, $p < .01$) was negatively related to vulnerability. In all analyses conducted on these two indices, a

significant effect was only revealed by a two-factor (Gender X Number of sons) ANCOVA performed on vulnerability scores. A main effect for gender ($F(1,36) = 4.55$, $p < .05$) was evident, with mothers reporting greater vulnerability than fathers. On the measure of the ability to complete plans, only one two-factor (Gender X Number of sons) ANCOVA yielded any significant results. A main effect for number of sons ($F(1,36) = 5.18$, $p < .05$) was found, such that parents who had 2 or more sons ($M = 2.95$, $N = 19$) reported lower levels of completing plans than parents with one or no sons ($M = 3.41$, $N = 22$).

Examining the widowed adults alone, on measures of fatalism and vulnerability, two-factor ANCOVAs indicated that education ($b = -.04$, $p < .01$) was negatively associated with fatalism, while none of the covariates were significantly related to vulnerability. On both measures, there was no evidence of any significant effects or interactions. However, on the ability to complete plans, time since loss ($b = .26$, $p < .01$) and age ($b = .03$, $p < .05$) were found to be significant covariates. All of the two-factor ANCOVAs conducted on the scores of ability to complete plans consistently yielded a main effect for gender at the $p < .01$ level, with widows reporting lower levels of completing plans than widowers. Only a two-factor (Gender X Expectedness of loss) showed a significant interaction ($F(1,135) = 4.09$, $p < .05$) on this measure (see Appendix D, Table 2 for means and standard deviations of ability to complete plans). Oneway ANOVAs further revealed that for widowed women those who

had experienced an expected death ($M = 3.11$, $N = 70$) reported lower levels of completing pre-arranged plans than women who had experienced an unexpected death ($M = 3.40$, $N = 42$, $F(1,110) = 3.98$, $p < .05$). No other main effects or significant interactions were found on this measure.

Overall Adjustment to the Loss Among Bereaved Adults

Comparison of Bereaved Adults

A three-factor (Bereavement X Gender X Time since loss) ANCOVA conducted on the scores of the overall adjustment measure revealed that education and expectedness of loss significantly influenced the scores, with more years of education ($b = .04$, $p < .05$) and expecting the loss for some time ($b = -.33$, $p < .05$) related to higher levels of adjustment. Table 8 displays the means and standard deviations on this measure by bereavement gender and time since loss for the bereaved adults. The results indicated a significant effect for time since loss ($F(1,156) = 6.24$, $p < .05$), but no main effects for group or gender. Those adults who had experienced the loss 6 to 15 years prior to the time of the interview reported higher levels of adjustment in terms of dealing with the loss and the subsequent changes than those adults who had experienced the loss 2 to 5 years prior to the interview. A nonsignificant trend for a group by gender interaction ($F(1,156) = 3.00$, $p = .08$) was noted, suggesting that mothers may experience lower levels of overall adjustment than fathers and widowed adults. There was no indication of any other two-way or three-way interactions.

Table 8

Means and Standard Deviations of Overall Adjustment by
Bereavement, Gender and Time Since Loss For Bereaved Adults

	<u>2 - 5 years</u>			<u>6 - 15 years</u>			<u>Total</u>	
	n	M	SD	n	M	SD	M	SD
<u>Men</u>								
Fathers	8	2.88	.99	11	3.27	.79	3.11	.88
Spouses	15	2.80	1.08	13	3.23	.73	3.00	.91
All men	23	2.83	1.03	24	3.25	.74	3.11	.91
<u>Women</u>								
Mothers	14	2.57	1.28	8	2.50	1.20	2.55	1.22
Spouses	36	2.92	1.13	63	3.33	.78	3.18	.94
All women	50	2.82	1.17	71	3.24	.87	3.07	1.02
<u>Total by time since loss</u>	73	2.82	1.22	95	3.24	.83	3.06	.99

Analyses Within Bereaved Groups

For the bereaved parents, two-factor ANCOVAs were conducted on the scores of the overall adjustment measure to assess the effects of gender with expectedness of loss, gender of the deceased child and each of the family variables. After correcting for the effects of age of the parent ($p = .05$,

$p < .05$), only a two-factor (Gender X Age of the eldest child) ANCOVA yielded any significant results, indicating a main effect for the age of the eldest child ($F(1,36) = 5.28, p < .05$). Parents whose eldest child was between the ages of 23 to 46 years ($M = 3.10, N = 21$) reported better overall adjustment than those parents whose eldest child was aged 47 to 58 years ($M = 2.50, N = 20$). No main effects for any other independent variables were found and there was no indication of any interactions.

Examining the bereaved spouses separately and controlling for the effects of time since the loss ($b = .43, p < .01$), a two-factor (Gender X Expectedness of loss) ANCOVA conducted on the overall adjustment scores revealed a main effect for expectedness of loss ($F(1,119) = 5.96, p < .05$). Widowed adults who had expected the loss ($M = 3.27, N = 93$) reported better overall adjustment than those who had not expected the loss ($M = 2.91, N = 44$). All subsequent analyses evaluating the effects of family variables did not demonstrate any significant effects or any interactions on this measure.

Chapter V

Discussion

This study examined the long-term effects of bereavement on personal functioning 2 to 15 years after the loss of a spouse or an adult child for men and women in later life. Older non-bereaved adults were also included for comparisons. Weiss's (1988) theoretical extension of the attachment theory of grief (Bowlby, 1969, 1980) guided this examination. Weiss (1988) believes that when an important attachment relationship, such as the parent-child or husband-wife relationship is permanently severed, the surviving individual is likely to be changed and suggests that "adaptation" or "accommodation" may best describe these changes in the person's identity and emotional reorganization. Weiss (1988) has provided four aspects to assess the return of effective personal functioning: 1) effective functioning in everyday life; 2) experience psychological comfort; 3) experience gratification; and 4) hopefulness for the future.

The significant differences found on the four aspects of effective personal functioning are presented in Figure 1. Effective functioning in everyday life was operationalized as self-efficacy and perceived health. On the self-efficacy measure, the comparison across the bereaved and non-bereaved adults revealed gender and group differences: women reported lower levels of self-efficacy than men, and widowed adults reported higher levels of self-efficacy than non-bereaved adults.

Figure 1

Significant Differences on Aspects of Effective Personal Functioning

	Effective functioning in everyday life	Psychological comfort	Gratification	Hopefulness for the Future
<u>Total study sample</u>	** gender (F < M) (self-efficacy) ** group (BS > NB) (self-efficacy)	** gender (F > M) (depression)	** group (BS < NB) (satisfaction with life)	** group (BA < NB) (future planning) ** gender (F > M) (fatalism and vulnerability) ** two-way interaction (WF < WM) (completed plans)
Covariates	** education (+) ** income (+)	** education (-)	** income (+)	** education (all) ** income (fatalism and completed plans) ** race (fatalism) ** age (completed plans)
<u>Bereaved study sample</u>	** gender (F < M) (self-efficacy)	-	** three-way interaction (WF at time 1 < WF at time 2)	** gender(vulnerability; F > M, and completed plans: F < M) ** time (1 < 2) (completed plans)
Covariates	** education (+)	** education (-)	-	** education (fatalism and completed plans) ** age (vulnerability)

** p < .05

A similar gender difference emerged in the separate examination of bereaved adults only. No significant differences were found on perceived health in either of these comparisons.

Psychological comfort was assessed by a depression index. The findings indicated a significant gender difference only, with women experiencing greater depression than men. A nonsignificant trend for gender was observed in the separate comparison of the bereaved adults.

Gratification was evaluated by a life satisfaction index. Widowed adults were found to express lower levels of life satisfaction than non-bereaved adults. A significant three-way interaction between gender, bereavement and time since the loss was found in the examination of the bereaved adults. Women who had been widowed for 2 to 5 years reported lower levels of life satisfaction than those who had been widowed for 6 to 15 years.

Hopefulness for the future was operationalized as fatalism, vulnerability, the ability to complete plans and future planning. Women reported higher levels of fatalism and vulnerability than men. Widowed women reported lower levels of completing plans than widowed men. The findings also indicated that bereaved adults were not as likely to plan for the future as non-bereaved adults. Examining the bereaved adults separately, a similar gender difference was present only on the vulnerability measure. On the index assessing the ability to complete plans, bereaved women reported lower levels of completing plans than bereaved

men, and adults who had been bereaved for 2 to 5 years expressed lower levels than those who had been bereaved for 6 to 15 years.

Initially, the results are discussed in relation to the four aspects of personal functioning and compared to other empirical evidence on long-term bereavement adjustments. Possible explanations for these findings are also examined in terms of Weiss's theoretical framework. Finally, the limitations are outlined, and directions for future research are suggested.

Effective Functioning in Everyday Life

According to Weiss (1988), the return to effective personal functioning in everyday life after a familial loss requires an investment in the present, with adequate energy to cope with current challenges. It was expected that levels of effective functioning in everyday life would differ by type of familial bereavement and by gender, such that bereaved parents, especially bereaved mothers would express lower levels of self-efficacy and perceived health than widowed or non-bereaved married adults.

The results on the measure of self-efficacy did not substantially support these predictions. A gender difference was consistently found, but this gender effect was not mediated by bereavement status. Women expressed lower levels of self-efficacy than men. This finding is consistent with other research on self-efficacy which has found that men have a greater sense of self-efficacy, personal control and mastery than women (see Gecas, 1989, for a review). Traditional male and female roles might underlie this gender difference. That is, the

responses of this older cohort appear to reflect their adherence to the cultural beliefs that masculinity involves agency and assertiveness, while femininity involves passiveness and dependency possibly reinforced by the structural factors of their social environment in terms of power, employment, and family responsibilities (Gecas, 1989).

The conceptual literature on parental bereavement has suggested that the loss of a child at any age appears to violate the parents' basic assumptions of competency as a functional adult (Klass, 1988, 1989; Klass & Marwit, 1989; Rando, 1986c), yet only one study on parental bereavement has included measures of self-esteem and mastery. Videka-Sherman and Lieberman (1985) followed 391 bereaved parents over one year and found that bereaved parents had lower self-esteem and mastery in comparison to non-bereaved parents. In contrast, these analyses revealed only nonsignificant trends even though self-efficacy scores for bereaved mothers were lower than all other adults.

These contrary results may be due to the differences in the characteristics of the parents studied, as well as the differences in the size of the samples. Videka-Sherman and Lieberman (1985) studied a large number of bereaved parents of all ages who were recruited through Compassionate Friends, (i.e., a self-help group for bereaved parents) and were primarily Caucasian (99%). In this study, 41 bereaved parents were selected from a random survey of the American population and represented a fairly equal distribution of Caucasians and

African-Americans in later life. The findings of Videka-Sherman and Lieberman (1985) may reflect the effects of the salient bereavement context of self-help groups in which the responses were obtained. Such a context effect was not present in this analysis due to the manner in which the data were collected (i.e., the participants were informed that study was about Americans' changing lives rather than the consequences of bereavement). However, the size of this sample of bereaved parents may have been too small to systematically detect any significant differences.

These participants might also have responded in socially desirable ways and potentially masked their true perceptions of self-efficacy (McPherson, 1983) which could also explain the absence of a group effect on this measure. On the whole, the average scores for all these older adults were relatively high (i.e., overall mean scores for any group was never less than 3.06, where the possible range was 1 to 4). This is inconsistent with much of the previous research that has examined self-efficacy in a life course context. A curvilinear pattern has typically been found, with self-efficacy increasing through early adulthood, reaching a peak in the middle years and gradually declining after age 60 (see Gecas, 1989).

Responding in socially desirable directions may also account for the finding that widowed adults expressed greater self-efficacy in comparison to long-term married adults. Yet this result is similar to the findings of Lieberman and Videka-Sherman

(1986) who studied 502 widowed adults of all ages and found that over one year, widowed adults demonstrated significant improvements on similar measures. Many of these widows actually reported functioning at greater levels than those prior to the death of their husbands (Lieberman & Yalom, 1988, as cited by Lieberman, 1989). The participants in this sample represented older adults who were probably coping with a variety of age-related changes, but they also were noninstitutionalized and had at least one available child for social support. Perhaps for these widowed adults, the experience of surviving one of life's most distressful events and maintaining their independence for 2 to 15 years after the loss has enhanced their knowledge of their own capabilities and increased their sense of self-confidence which may explain the higher levels of self-efficacy (see also, Hansson & Remondet, 1988, for a similar discussion).

Moderate levels of perceived health status were reported by both bereaved and non-bereaved adults. The finding that widowhood did not appear to have an enduring effect on perceived health, 2 to 15 years after the loss is consistent with current longitudinal research which has also found that one year or more following the death of a spouse in later life, widowed men and women's perceptions of self-rated health were similar to those of older non-widowed men and women (Clayton, 1974; Ferraro, 1986; Lund et al., 1989; McCrae & Costa, 1988; Van Zandt et al., 1989).

The results did not support the hypotheses that bereaved parents would express poorer perceived health than widowed and

non-bereaved adults, and that mothers would express poorer perceived health than fathers. There was no evidence of a group or gender difference in either of the comparisons. On measures of physical health, no significant differences between bereaved and non-bereaved individuals have also been reported for older adults who have experienced different types of familial losses (Perkins & Harris, 1990), and for middle-aged parents who had experienced the sudden loss of a child (Lehman et al., 1987). In contrast, other research has shown that poorer levels of perceived health (Florian, 1990) and health-related problems (Leshner & Bergey, 1988; Rubin, 1990; Shanfield & Swain, 1984; Singh & Raphael, 1981) persisted for older parents 1 to 20 years after the loss of a grown child. Most of these studies have not included a comparison group of non-bereaved parents (Leshner & Bergey, 1989; Rubin, 1990; Shanfield & Swain, 1984; Singh & Raphael, 1981), and the results may actually reflect age-related health deterioration rather than pervasive negative effects of later life parental bereavement on perceived health.

Alternatively, Rubin (1990) has suggested that perceived health is affected by three factors: the parent's stage of life, the child's age, and the circumstances surrounding the death. These factors appear to be functioning both separately, and in interaction. In this study, the parent's stage of life (i.e., 59 years or older at time of loss) and the age of the adult child (i.e., probable age was 19 years or older at time of death; actual age unavailable in ACL data) were held relatively

constant, but surprisingly, expectedness of loss did not significantly differentiate the bereaved parents on this measure. Perhaps, it is not whether the death is expected or unexpected, but the actual cause of death that influences parents' perceptions of health over the long-term course of adjustment. In most of these studies that have shown persistent health consequences for bereaved parents, the cause of death was either war-related (Florian, 1990; Rubin, 1990), or accidental (Shanfield & Swain, 1984; Singh & Raphael, 1981). Shanfield et al. (1987) found that in comparison to those parents who had experienced the accidental death of an adult child, older parents who had experienced an expected death did not report a change in health-related problems. Although the cause of death was not available in the ACL data for this analysis, this information might have differentiated the bereaved parents from other adults.

Psychological Comfort

The return to effective personal functioning requires experiencing psychological comfort, as demonstrated by the freedom from disturbing thoughts and feelings associated with pain and distress (Weiss, 1988). Levels of psychological discomfort were expected to differ by type of familial bereavement and by gender.

The predictions that bereaved women would express greater depression than bereaved men and non-bereaved adults, and that bereaved mothers would express greater depression than widows were not supported by the results of these data analyses. The

comparison of the three groups revealed only a gender difference, with women reporting higher levels of depression than men. Thompson et al. (1991) also found that irrespective of spousal bereavement status, older women endured more symptoms of depression than older men. Drawing on Nolen-Hoeksema's (1987) review of the depression literature, Thompson et al. (1991) suggested that this difference might be accounted for by gender-related behavioral styles, such that women appear to engage in depressive rumination and overreport depression, while men appear to deny such thoughts and underreport depression.

Another explanation is offered by Stroebe, Stroebe and Domitner (1988) who examined differences in recovery and found a selection effect, revealing that widowed women who agreed to participate in in-depth interviews were more depressed than those women who refused, whereas an opposite pattern was evident for widowed men. They suggested that due to the cultural norms governing self-control of emotion, it is acceptable for women to display emotional distress during an interview, but inappropriate for men, and that this selection effect may actually be a gender difference in coping styles. Perhaps the gender difference revealed by these analyses may also reflect the unique coping styles of men and women.

Overall, the depression scores of the older adults in this sample were moderately low. Depression did not significantly differentiate the widowed adults from non-bereaved adults. These results are consistent with current longitudinal research on

later life spousal bereavement which has also shown that depression rarely reached clinical pathological levels, and that widowed adults reported similar levels of depression as that of non-bereaved older adults, 13 to 42 months after bereavement (Clayton, 1974; Faletti et al., 1989; Lund et al., 1989; Thompson et al., 1989; Thompson et al., 1991; Van Zandt et al., 1989).

The depression scores of bereaved mothers were higher than those of widowed and non-bereaved adults, but the differences were not significant in either of these comparisons. These results are inconsistent with the research that has used similar measures to assess depression and demonstrated that bereaved mothers experienced more pervasive depression, 1 to 20 years after the loss of a grown child (Leshner & Bergey, 1988; Shanfield & Swain, 1984; Singh & Raphael, 1981). Other studies have evaluated psychological distress on a global measure of grief (i.e., Grief Experience Inventory; Sanders et al., 1979) and revealed that a predominant characteristic of later life parental bereavement appears to be despair (i.e., depression) which persists for both parents 10 years after the loss (Rubin, 1990), but especially for mothers 2 to 13 years after the loss (Fish, 1986; Rubin, 1992). Perhaps, the contrary findings may be explained by the absence of control groups of non-bereaved parents in most of these studies. Only Rubin (1992) included non-bereaved parents for comparison purposes, while others reported that the depressive reactions of bereaved parents were significantly higher when compared to other appropriate

populations (Leshner & Bergey, 1988; Shanfield & Swain, 1984). Possibly, the results of previous research reflect the unique characteristics of the bereaved parents studied rather than the long-term effects of the loss of an adult child.

Alternatively, several of these studies have used specific measures of grief rather than general measures of psychological distress to assess depressive reactions (Fish, 1986; Rubin, 1990, 1992). Over the long-term course of bereavement, grief measures may be more sensitive in nature and better able to capture the reactions and personal adjustment to loss than standardized measures of depression (see Thompson et al., 1991, for discussion). Items were included in the ACL structured interview to assess grief resolution of spousal bereavement, but such items were not available to evaluate grief resolution of parental bereavement.

Gratification

Weiss (1988) suggests that the return of effective personal functioning requires the ability to experience gratification by deriving pleasure and satisfaction from the events of life. The findings did not support the hypotheses that bereaved adults, and especially bereaved parents, would express lower levels of gratification on a measure of life satisfaction than non-bereaved adults, and that bereaved mothers would express lower levels of life satisfaction than bereaved fathers.

The results suggest that widowed adults are more likely to experience lower levels of life satisfaction 2 to 15 years after

the loss than long-term married adults who had never been widowed. This finding is consistent with early gerontological research which has also demonstrated that widowed adults may experience lower levels of life satisfaction or morale than married people in later life (see McPherson, 1983, for a review). Possibly this finding may reflect the feelings of loneliness associated with widowhood which may be especially so for older adults who have shared the daily activities and rhythms of life with the same partner for many years. Other research on spousal bereavement has also shown that loneliness may be one of the most difficult problems of widowhood (see also Lund, 1989; Lopata, 1973, 1979; Parkes, 1986).

In the separate analysis of the bereaved adults only, a significant difference by time since loss was found for widowed women, revealing that widows who had been bereaved for 2 to 5 years were more likely to express lower levels of life satisfaction than those widows who had been bereaved for 6 to 15 years. Earlier research has also suggested that life satisfaction or morale may improve with time for older widowed adults, as they adapt to the personal, financial, and social changes of single status (see McPherson, 1983; Schuster & Butler, 1989, for reviews).

In gerontological research, life satisfaction has been widely accepted as an indicator of subjective well-being, yet only a limited number of recent bereavement studies have assessed the long-term effects on life satisfaction (see Lund et al.,

1989). Primarily, attention has been directed to evaluating the negative consequences of bereavement associated with depression or psychological distress, rather than examining the possible positive changes in subjective well-being (see Wortman & Silver, 1987, 1989). In a longitudinal study, Lund et al. (1989) discovered that 108 older widowed men and women experienced slightly lower levels of life satisfaction in the initial months of bereavement in comparison to non-bereaved counterparts. Over time, life satisfaction increased for widowed adults but declined for non-bereaved adults, and after two years, the difference between the two groups was not significant. In contrast, Schuster and Butler (1989) studied 723 older widowed adults (mean age = 75.35) and revealed that women reported lower levels of life satisfaction than men. The majority of these adults had been widowed for a relatively long time (i.e., $M = 13$ years, range 1 to 58 years), but the duration of bereavement was not found to be related to life satisfaction.

In this examination, the scores on life satisfaction were moderately high for the bereaved adults, yet similar to those reported by Lund et al. (1989) and Schuster and Butler (1989). However, the findings of this study differ from their results which might be accounted for by the differences in methodological procedures, the number of widowed individuals studied, and the characteristics of the samples, especially regarding age and duration of bereavement. When the results are considered as a whole, possibly what emerges is a relationship between length of

time widowed and life satisfaction for older women. As the widow adapts to the new role and necessary changes, life satisfaction may improve and remain fairly stable for a considerable period of time. But as the duration of bereavement increases beyond 15 years or more, perhaps additional age-related losses and economic hardships may reduce the widows' satisfaction with life.

The results of these analyses did not indicate group or gender differences for the bereaved parents in comparison to widowed and non-bereaved adults and there was no evidence of a gender difference between bereaved parents. To date, no other study has examined the long-term effects of later life parental bereavement on life satisfaction. However, Florian (1990) found that 2 to 11 years after the death of an adult son, fathers and especially mothers expressed less meaning and purpose in life in comparison to non-bereaved parents. These feelings of meaninglessness filtered into many realms including their work, their ability to cope with problems and their family relations. When assessing life as a whole, life satisfaction appears to be a fairly stable dimension that exhibits little change over time (Lund et al., 1989). Perhaps, a more sensitive measure which evaluated the satisfaction with specific areas of life, such as family, friendships, religious and community affiliations, financial situations and residential locations may have differentiated the bereaved mothers and fathers from each other and from bereaved spouses and non-bereaved adults.

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Hopefulness For the Future

Effective personal functioning requires a positive sense of the future and the ability to plan and care about future plans. It was predicted that levels of effective functioning on measures of hopefulness for the future would differ by type of familial bereavement and by gender, such that bereaved adults, especially parents would report higher levels of fatalism and vulnerability and lower levels of future planning and completing pre-arranged plans. Bereaved mothers were expected to report higher levels of vulnerability than bereaved fathers.

Overall, these adults in this sample expressed a high degree of fatalism which may be typical for an older population who has experienced many negative and uncontrollable life and historical events, as well as confronted the inevitable physical, personal and social losses associated with aging. Stronger religious beliefs held by these individuals may also account for the responses on this measure. In comparison across the three groups, the findings did not provide support for the hypothesis. The scores of the bereaved adults, especially the bereaved parents, were higher than non-bereaved adults, yet the comparison revealed only a gender difference. Older women were more fatalistic than older men. A potential explanation for this finding might be that these women of an older cohort have experienced greater dependency, restricted opportunities and lower levels of power to choose and plan the direction of their lives than older men.

In the separate examination of the bereaved adults and unlike the previous comparisons, there was no evidence of a gender difference on fatalism. Perhaps, the experience of losing a spouse or an adult child causes a change in the fatalistic attitudes held by men. Such a loss appears to violate their world view and the orderliness of life which seems to be especially so for fathers (Fish, 1986; Moss et al., 1987; Rando, 1986c), and they may seek solace in the belief that this death was unalterable or a part of God's plan.

The results on the vulnerability measure were unexpected and did not provide support for the hypotheses. In both sets of comparisons, only a gender difference was revealed. It appears that irrespective of bereavement, older women worry more about potential negative events happening to themselves or their family members than older men. Again, this finding may be explained by the differences in traditional male and female gender roles. In terms of family responsibilities, women have been described as the kinkeepers, communicating with and monitoring the activities of family members, while men have been identified as ambassadors, developing relationships within the social community beyond the family (Hagestad, 1985).

It was surprising to discover no significant differences between bereaved and non-bereaved adults in either of the comparisons on vulnerability. In contrast, Lehman et al. (1987) used a similar measure in their examination of the long-term effects of the loss of a spouse or child in an automobile

accident and found that middle-aged widowed adults expressed more worries about themselves or their family members in the future than did non-bereaved adults. A similar nonsignificant trend was noted for middle-aged bereaved parents in comparison to non-bereaved parents. These contrary findings may reflect the differences in the ages of the participants in the two studies, as well as the circumstances of the deaths. Middle-aged widowed adults may have different worries and concerns because of multiple demands in their lives with respect to earning a wage, managing a home, and providing care to dependent children and possibly aging parents (Demi, 1989). For these older bereaved spouses in this sample, such multiple demands do not appear to be present (i.e., most were retired and all had adult children).

Another possible explanation for the different findings might be the cause of death. The majority of the widowed adults in this sample reported that the death of their spouse had been expected for some time. Perhaps, only accidental or violent deaths produce more pervasive apprehension and concerns regarding potential negative events. Although most of the bereaved parents reported an unexpected death, this variable was not found to be significantly related to vulnerability in any of these analyses. The actual cause of the death of the adult child may have differentiated the bereaved parents from the bereaved spouses and non-bereaved adults, but such information was unavailable in the ACL data to allow for a comparison.

On the measure of future planning, the results of the comparison across the three groups indicated that bereaved spouses and bereaved parents were less likely to plan for the future than non-bereaved adults. The scores on the ability to complete plans were lower for bereaved mothers than other adults in this sample, but no group or gender differences between bereaved parents and all other adults were found. Overall, these results do not provide substantial support for the hypothesis that later life parental bereavement would have a pervasive negative effect on the perceived ability to plan and care about future plans.

Comparing across the three groups on the ability to complete plans, a significant difference between the widowed adults was revealed, suggesting that widows may experience lower levels of completing pre-arranged plans than widowers. A possible explanation for this finding might be that in comparison to men, these women may not be accustomed to performing certain tasks independently, such as planning and making decisions, dealing with finances or engaging in various activities in their communities (see Hansson & Remondet, 1988; Lopata, 1988, for discussion). For older widows, planning capabilities may improve through the adjustment process of widowhood, but possibly these capabilities may never be as high as those levels demonstrated by widowed men.

When time since the loss was included in the separate examination of the bereaved adults only, the results indicated that bereaved women appear to experience lower levels of planning than bereaved men. Perhaps, the plans of women may be more social in nature and readily disrupted due to family responsibilities and spontaneous expectations, whereas the plans of men may be more instrumental, related to financial expenditures as well as major career and family decisions which necessitate completion.

It was also found that those adults who had been bereaved 2 to 5 years are more likely to express lower levels of completing plans than those who had been bereaved 6 to 15 years. Conceptually, future orientation or hopefulness for the future has been considered to be a favourable outcome of bereavement (Osterweis et al., 1984; Parkes & Weiss, 1983; Weiss, 1988), but there is little empirical evidence about the effects of bereavement on this measure. Schuster and Butler (1989) found that number of years widowed was negatively associated with a similar measure of future orientation for older widowed adults, but no relationship between gender and future orientation was demonstrated. Although these findings differ, the duration of bereavement in later life may be a predictor of hopefulness for the future. With time, older adults may emotionally learn to live with the loss and develop new skills which may improve their ability to carry out pre-arranged plans more effectively.

The scores on these measures were relatively high for all adults in this study. As Hansson and Remondet (1988) contend, many individuals are not future oriented or planful in their approach to life and perhaps these responses reflect the effects of social desirability. Alternatively, the items in the ACL structured interview may have been too global to capture the specific aspects of planning. A finer level of measurement that included questions on future goal setting, the type of plans devised to accomplish these goals and which pre-arranged plans were actually completed might have provided a more accurate evaluation of future orientation. The results of this study suggest that the inclusion of indicators of future planning may hold promise in understanding the long-term effects of familial bereavement.

Appropriateness of the Theoretical Framework

It is generally believed that recovery involves the return to previous levels of functioning (Hansson et al., 1988; Wortman & Silver, 1987, 1989), but the understanding of long-term adjustment has been constrained by the lack of agreement concerning bereavement outcome variables (Osterweis et al., 1984, 1987). Weiss's (1988) theoretical framework distinguished four dimensions of effective personal functioning which provided the foundation for this examination of long-term personal adjustment to distinct types of familial losses in later life. In these data analyses, the four aspects emerged as relatively independent dimensions.

Weiss's (1988) criteria not only allowed for the evaluation of standardized measures of psychological well-being to facilitate a comparison between other empirical findings on bereavement outcomes, but also permitted the opportunity to operationalize key concepts identified in the theoretical literature. This examination of measures of self-efficacy, life satisfaction, and future orientation demonstrated that the operationalization of such theoretical concepts in future research may refine the current state of knowledge on bereavement adjustments.

On the whole, these findings suggest that later life spousal and parental bereavement did not appear to have an enduring effect in these older adults. Considering that the current evidence on parental bereavement has consistently shown pervasive negative effects as a consequence of the loss of an adult child (Fish, 1986; Florian, 1990; Leshner & Bergey, 1988; Rubin, 1990, 1992; Shanfield & Swain, 1984), it was somewhat surprising to discover that the experience of parental bereavement did not differ from that of spousal bereavement. The responses on the measure of overall adjustment lend support to these results, with the majority of the bereaved adults reporting that they had dealt fairly well with the loss and the subsequent changes. The scores on this measure were somewhat lower for bereaved mothers than other adults, but only a nonsignificant trend was observed. The duration of bereavement did play a role, however. Older adults who had been bereaved for 6 to 15 years were more likely to

report greater overall adjustment than those who had been bereaved for 2 to 5 years. Although the data primarily demonstrated similarities between the bereaved and non-bereaved adults, differences between widowed and long-term married adults who had never been widowed emerged on measures of effective functioning in everyday life and gratification, suggesting that negative as well as positive changes may occur after the loss of a spouse in later life.

The pervasive role of gender was unexpected. On the majority of outcome measures, either main effects for gender or interactions between gender and type of bereavement were evident. It appears that traditional gender roles and the social-historical context in which these individuals have matured may have a considerable influence on their long-term bereavement adjustments. Weiss's (1988) conceptual framework does not provide an adequate account for these gender differences revealed in this examination. Perhaps this is understandable given that the assumptions of this theoretical extension have been primarily substantiated by clinical observations and empirical research on spousal bereavement (Klass, 1989; Rando, 1986b) which has focused on the long-term consequences for women rather than men (Osterweis et al., 1984; Stroebe & Stroebe, 1983).

In addition, this analysis revealed the importance of sociodemographic characteristics on bereavement outcomes in later life. Comparing across the bereaved and non-bereaved adults, the variables that emerged as significant covariates were education,

income, age and race. Only a limited number of current bereavement studies on older adults have assessed the effects of sociodemographic characteristics (see Lund, 1989, for a review). Some of this research has used matching techniques prior to assessment and demonstrated that the influence of these variables was not as strong, as expected (Lund et al., 1989; Rubin, 1992; Thompson et al., 1991). Alternatively, other studies have included sociodemographic characteristics as covariates and have found that income (Schuster & Butler, 1989) or current employment (Faletti et al., 1989) were related to better bereavement outcomes for older widowed adults.

Education emerged as the strongest covariate on most outcome measures, such that more years of schooling appeared to be associated with higher levels of personal functioning. Earlier research has also shown the importance of education on bereavement adjustments for older bereaved parents (Purisman & Maoz, 1977) and for widowed women (Lopata, 1973, 1979). In fact, Lopata (1988) has concluded that the degree of education may be the most influential variable, providing the ability to define problems, to locate available resources, and to take action towards possible solutions.

Comparisons of this total study sample revealed that income accounted for some of the differences on measures of self-efficacy, perceived health, life satisfaction and the ability to complete plans, with higher levels of income related to higher levels of personal functioning. Previous research on spousal

bereavement has suggested that income may be the primary intervening variable in psychological well-being (see Lehman et al., 1987; Sanders, 1988, for review), but income did not explain the majority of the variance in these analyses. These results are similar to those of Lehman et al. (1987) who also found that income did not primarily account for the differences between middle-age and non-bereaved adults on psychological adjustment.

Examining only the bereaved adults, education was once again found to be the most influential variable. Age only emerged as a significant covariate on the measure of vulnerability. Although levels of income differed between spouses and parents, preliminary analyses revealed that income was not significantly related to any outcome measures; this might be due to the lower levels reported by the majority of these bereaved adults (i.e., 85% had an annual income of \$19,000 or less).

These analyses not only revealed the pervasive effect of gender, but also the consistent influence of sociodemographic characteristics on bereavement outcomes. These findings underscore the importance of understanding the social context in which bereavement and adjustment occurs (see Averill & Nunley, 1988; Stroebe et al., 1988, for reviews). As Averill and Nunley (1988) point out, emotional reactions to bereavement cannot be isolated from other social phenomena. Although Weiss (1988) recognizes that the social and psychological circumstances both at the time of loss and after may affect the survivor's adjustment, he believes, as Bowlby (1969, 1980) that the most

influential variable is probably the personality structure of the individual. This structure represents the organization of early childhood patterns and provides the mechanisms for coping with stressful situations (Bowlby, 1980).

The unique characteristics of the bereaved adults regarding the duration of bereavement and the expectedness of loss accounted for some of the differences in long-term adjustment. The duration of bereavement was found to be related to life satisfaction, ability to complete plans and overall adjustment. For the bereaved adults in this study, those who had been bereaved for 2 to 5 years were more likely to experience lower levels of functioning on these measures than those who had been bereaved for 6 to 15 years. The findings of this cross-sectional investigation lend some support to the notion that adjustments for both parents and spouses may continue beyond the cultural expectations of one year (Osterweis et al., 1984, 1987; Hansson et al., 1988; Wortman & Silver, 1987, 1989) possibly requiring two or more years (Lundin, 1984; Lehman et al., 1987).

Alternatively, expectedness of loss was only significantly related to the measure of overall adjustment. Older adults who had experienced an unexpected death were more likely to report lower levels of overall adjustment than those who had expected the death for some time. This finding is inconsistent with current research on later life spousal bereavement that has shown that different death situations do not appear to have much of an impact on long-term adjustment (see Lund, 1989, for a review).

In contrast, Shanfield et al. (1987) found that those parents who had experienced a sudden accidental death of an adult child reported more health-related problems, as well as greater depression and grief than those parents who had expected the death of their child. Other research on bereaved adults of all ages have also indicated that in comparison to expected losses, sudden, unexpected losses have a pervasive effect, producing poorer health and greater psychological distress (see Sanders, 1988, for a review).

It is of interest to note, that in the exploratory analyses examining the bereaved parents and spouses individually, the different death situation of expected vs. unexpected only differentiated the widowed adults from each other. Possibly, the death of a child at any age from the parents' perspective is considered to be unexpected because of the implicit understanding that the parent is suppose to die before the child (Moss et al., 1987; Rando, 1986c; Raphael, 1983; Sanders, 1980). Additional research is needed to clarify whether distinct reactions reflect unexpectedness of loss or the actual cause or circumstances of the death.

Changes in family dynamics and patterns of interaction after the death of a spouse or an adult child may also play a role in long-term bereavement outcomes (McGoldrick & Walsh, 1991; Moss et al., 1987; Rando, 1986c; Raphael, 1983). The separate set of analyses within bereaved groups revealed that certain structural characteristics of the family were related to some of these

measures of personal functioning. Unfortunately, finer levels of measurement concerning distinct familial relationships were not available in the ACL data for these analyses. Due to the exploratory nature of this examination, conclusions from these findings are cautioned.

For the bereaved parents in this study, possibly the loss of a son may produce poorer perceptions of physical health for mothers than fathers. Previous research has suggested that the more enduring and important parent-child bond in later life is that of the mother-daughter relationship (see Troll, 1986, for a review), but perhaps this cross-sex bond for mothers is stronger than previously alluded to. Also, parents who had two or more surviving sons were more likely to report lower levels of completing pre-arranged plans than those with fewer sons. No evidence was found for such an association with surviving daughters. Parents who had older surviving children appeared to express lower levels of overall adjustment than those with younger children, suggesting that the loss of an adult child may have a greater impact on older parents who may also be confronting other personal, physical and social losses, as well as their own mortality (Hocker, 1988; Moss et al., 1987; Rando, 1986c).

In this exploratory examination of widowed participants, those adults who had one or two children were more likely to experience poorer perceived health and greater depression than those who had three or more children. One possible reason for

this finding might be that a larger family network represents more social and instrumental support which might provide a sense of security or comfort in later life. Alternatively, more children may reflect more grandchildren and greater family involvement which could possibly reduce the opportunity to dwell on physical problems or depressive thoughts. These insights suggest that to understand the challenges that different family survivors must face over the long-term course of bereavement, not only does the broader social context need to be considered, but also the family context in which all losses are embedded.

Summary and Limitations

Guided by Weiss's (1988) theoretical framework, this study attempted to compare the long-term personal adjustment for older men and women, 2 to 15 years after the death of a spouse or an adult child. Overall the results suggest that spousal and parental bereavement does not appear to have a pervasive negative effect in older adults. The pervasive role of gender was surprising as well as the effects of sociodemographic variables on personal functioning. On the whole, these findings lend support to other research that has concluded that older widowed adults appear to be quite resilient and hardy (Caserta & Lund, 1992; Lund et al., 1989; McCrae & Costa, 1988); a contradiction to the stereotypical image of the older person as being dependent, helpless and depressed (Caserta & Lund, 1992).

As with all research, this study has limitations. The sample was selected from a large national random survey of the American

population, but only a relatively small number of older bereaved parents were available for study. The size of this group may have worked against the uncovering of any significant differences. Thus, generalizing these findings to other populations is cautioned.

The majority of previous bereavement research has drawn on special bereavement groups (i.e., self-help groups) or clinical populations (see Perkins & Harris, 1990), with most respondents informed of the study purposes and goals prior to participation (see Sanders, 1988). The context effect of either conforming to the bereaved role or demonstrating the cultural expectation of recovery (Lehman et al., 1987) was minimized in this study due to the manner in which the data were obtained in the ACL survey. However, a selection effect could be present in this sample which may raise some doubts about these responses of older adults. As Stroebe and Stroebe (1990) contend, participation even in such national surveys appears to be associated with certain characteristics of bereaved adults, with the acceptors tending to be generally healthier and possibly better adjusted to the loss than refusers.

Although this sample was relatively homogeneous regarding the age of the respondents (i.e., 59 years or older), collecting reliable data from older populations also poses additional problems. According to McPherson (1983), adults in later life may not only be skeptical about the confidentiality of such research, but also experience difficulty responding to unfamiliar

questionnaire formats. Furthermore, the reliability of this information may be hampered by their inability to recall certain items, hearing and/or visual deficiencies as well as fatigue and attention deficits (McPherson, 1983). Thus, the responses of the adults in this study may not portray their true perceptions or their actual economic and/or health status.

As previously discussed, the measurement of outcome variables is one of the major concerns in this area of research, namely, what is appropriate to measure and at what point should such assessments be conducted (Osterweis et al., 1984, 1987). Most of the instruments used in these analyses had been validated in previous research which allowed for comparisons with other empirical findings on bereavement outcomes as well as personal functioning in later life.

However, the inability to assess grief is another limitation of this study. Research on parental bereavement has consistently demonstrated that grief persists, one to twenty years after the loss of an adult child (Fish, 1986; Leshner & Bergey, 1988; Rubin, 1990, 1992; Shanfield & Swain, 1984; Shanfield et al., 1987). Primarily, longitudinal studies on later life spousal bereavement have focused on the presence or absence of depression to account for the psychological reactions to the loss (Gallagher et al., 1982; Stroebe et al., 1988). Yet of those studies that have also assessed distinct grief responses, the results suggest that grief continues to be present 30 months or more after the loss for both

older widows and widowers even when depression subsides (Thompson et al., 1991; Van Zandt et al., 1989). In these analyses, an item on overall adjustment was included which evaluated the bereaved adults' general feelings about coping with the loss. But without examining the specific aspects of grief, it is questionable as to whether these adults had successfully adapted to the loss as these data appear to suggest. As noted earlier, items on grief resolution for bereaved parents were unavailable in the ACL data to conduct comparisons.

In addition, some indices did not demonstrate as high reliability as others (i.e., life satisfaction, Alpha = .58). Perhaps these measures may not be sensitive enough to capture the experiences of bereavement in later life. Also, most of these quantitative instruments have been developed and tested on younger populations and the items may not be phrased in the appropriate language of older adults (Gee & Kimball, 1987; McPherson, 1983). This could lead to misinterpretation and raise further questions about the reliability and validity of these results.

The most serious limitation of this study was the use of cross-sectional design to study the long-term reactions to life events that occur over time. Although an appropriate group of non-bereaved adults were included for comparison purposes, these results can only infer that parental and spousal bereavement does not appear to have an enduring effect in these older adults.

Directions for Future Research

Despite these limitations, the findings of this study have implications for future research and theory development. There is a need for more studies on later life parental bereavement that include non-bereaved parents to clarify whether the pervasive effects as reported in the current literature reflect the impact of the loss of an adult child rather than the unique characteristics of the individuals or age-related health deterioration. To provide a comparable group in both spousal and parental bereavement research, attention should also be paid to the family characteristics, such as the years of marriage, the number of children and whether the loss of a spouse or child has ever been previously experienced.

From this cross-sectional approach, it appears that personal functioning improves with time after the experience of both types of familial losses in later life. Longitudinal studies that evaluate adjustments beyond two years of bereavement are required to further understand not only the grieving process but also the nature and extent of adaptation for older adults. Longitudinal research is especially needed to examine the consequences of parental bereavement following the loss of an adult child; to date the current evidence is based on cross-sectional or retrospective data.

Few studies on later life spousal bereavement have assessed the multidimensional aspects of personal adjustment. Primarily, this research has focused on measuring the negative effects of

bereavement (i.e., depression, psychopathological symptoms), rather than examining the possible positive changes. These results demonstrate the need for a broader-based assessment of older bereaved adults (see also Thompson et al., 1991; Lund et al., 1989). Further evaluation and refinement of such measures as self-efficacy, life satisfaction, and future orientation may contribute to the current state of knowledge on both types of later life bereavements. In addition, to improve the operationalization of such concepts, some gerontologists are suggesting that qualitative, interpretative methodologies need to be incorporated as well as quantitative designs (see Gee & Kimball, 1987, for review). Qualitative methods provide older adults with the opportunity to describe their personal experiences as well as the meaning of those experiences within the sociocultural context (Rosenblatt & Fisher, 1993). Many bereavement researchers are also choosing qualitative methods, such as ethnography (Klass & Shinnars, 1983), conscious raising groups (Morgan, 1989) and in-depth interviews (Davies, Spinetta, Martinson, McClowry, & Kulenkamp, 1986; Lund et al., 1989; Moss & Moss, 1989a, 1989b; Ponzetti & Johnson, 1991; Rosenblatt & Elde, 1990). These approaches have revealed valuable new insights, not only on the bereavement process for different types of survivors, but also about later life family relationships.

Weiss's (1988) theoretical extension of Bowlby's (1969, 1980) commonly accepted model of grief provided the opportunity to operationalized such concepts as competency, satisfaction with

life and hopefulness for the future. But this perspective did not adequately account for the effects of gender or other social characteristics on bereavement adjustments revealed by this analysis. This is not surprising given that the predominant focus of these traditional models has been that of the grieving individual and the quality of the prior relationship with the deceased. Although the importance of social support has been emphasized, both the personal and social meaning of the nature of that relationship or the changes that occur in the family context and in the social context have not been explored (Walsh & McGoldrick, 1991).

The results of this research may help to further the awareness that an interdisciplinary theoretical perspective appears to be necessary to unravel the complexities of the bereavement process and long-term adaptation (see also Averill & Nunley, 1988; Osterweis et al., 1984, 1987; Stroebe et al., 1988). Grief and subsequent changes do not occur in social isolation or in the abstract concept of society at large; loss happens to and within families. To begin to understand the personal and social meanings regarding what has been lost and the bereavement adjustments that follow, the interconnections between the psychological and physiological aspects need to be linked to both the family context and the socio-historical context in which all losses are embedded (Rosenblatt, 1988).

A holistic perspective is beginning to emerge as demonstrated by Klass and Marwit's (1989) model on parental

bereavement. To explain the meaning of the loss of a child, they have looked to understanding the meaning of the parent-child relationship from the parent's perspective by incorporating the current knowledge on primates, human bonding, family systems theory, psychodynamic approaches to parenthood and pathological parenting. Most importantly, Klass and Marwit (1989) have revealed that continued identification with the deceased may be involved in the process of resolution for bereaved parents. This notion contradicts the beliefs of Bowlby (1969, 1980) and Weiss (1988) who have viewed such identification as pathological adaptation. However, identification may also be involved in the adjustment process for older bereaved spouses as well, described as husband sanctification by Lopata (1979) or persistent ties with deceased spouses by Moss and Moss (1984).

Although the bereavement field is small, it is also rapidly expanding (Stroebe et al., 1988). It is hoped that the insights revealed by this research will encourage others to consider the family context and the social-historical context not only in future bereavement research, but also in theoretical development.

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Appendix A

Measures

Gender (V0103)

Based on Interviewer's observations:

1. Respondent's sex is:

Codes consist of 1 = male, and 2 = female.

Age (V2000)

1. How old are you?

Codes range from 24 = 24 years to 96 = 98 years.

Race (V2004)

1. Are you white, black, American Indian, Asian or another race?

Codes consist of 1 = White, 2 = Black, 3 = American Indian
4 = Asian, 5 = Mexican American.

Education (V2007)

1. What is the highest grade of school or year of college you have completed?

Codes range from 0 = 0 years through 17 = 17 years.

Family Income (V2020)

1. If we include the income from all these sources, and add all of your (and your spouse's) earnings, what would your total income before taxes for the last 12 months add up to? Just give me the letter from the list on this page.

Codes consist of 1 = under \$5,000, 2 = \$5,000 - \$9,999,
3 = \$10,000 - \$14,999, 4 = \$ 15,000 - \$19,999,

5 = \$20,000 - \$24,999, 6 = \$25,000 - \$29,999,
 7 = \$30,000 - \$39,999, 8 = \$40,000 - \$59,999, 9 = \$60,000 -
 \$79,999, and 10 = \$80,000 or more.

Employment Status

1. Are you retired? (V1105)

Codes consist of 1 = Retired and 2 = Not retired.

2. Are you employed? (V3006)

Codes consist of 1 = currently employed and 0 = unemployed.

Marital Status (V2015, V0402)

1. Now I have some questions about your family situation.

Are you currently married, separated divorced, widowed
 or have you never been married?

Codes consist of 1 = married, and 2 = not married.

2. Are you currently living with another adult as a partner
 in an intimate relationship?

Codes consist of 1 = yes, and 5 = no.

Duration of Marriage (V0404, V2030)

1. For how many months or years have you been living with
 your partner?

Codes range from 1 = 1 year through to 40 = 40 years.

2. In what year was your (most recent) divorce or
 annulment?

Coded as 4 year digit ranging from 1900 to 1986.

Total Number of Children (V2017)

1. I need the age, sex and relationship to you of everyone
 age 17 or younger who lives here.

2. Could you give me the sex and age of each of your children living elsewhere?

Codes range from 0 = no children through 7 = 7 or more children.

Ages of Children (AGEC)

The two preceding questions will apply. (V0204, V0206, V0208, V0210, V0212, V0214, V0216, V0218). A mean age will be computed, so that codes will range from 1 = 1 year through 60 = 60 or more years.

Spousal Bereavement

1. Now I have some questions about your family situation.
Are you currently married, separated, divorced, widowed or have you never been married? (V2061)

Codes consist of 1 = widowed, and 0 = otherwise.

2. How many times have you been widowed, if any? (V0420)
Codes range from 0 = never through 5 = widowed 5 times or more.

Parental Bereavement

1. Have you ever had a child who died? (V0440)

Codes consist of 1 = yes, and 5 = no.

Duration of Bereavement

1. In what month and year were you widowed? (V2025)
2. In what year did this happen? (i.e., death of child)
(V0442)

Coded as a 4-digit year, with codes ranging from 1900 through 1986.

Expectedness of loss

1. Was your spouse's death totally unexpected or expected for some time? (V0706)
1. Was your child's death totally unexpected or did you expect it for sometime? (V0445)

Codes consist of 1 = expected, and 2 = unexpected.

Other Losses

1. Has a parent or a step-parent of yours died in the last three years? (V0527)
2. (Other than deaths you already mentioned) Has one of your close friends or a close relative died in the last three years -- someone you felt you could call on for advice or help if you needed it? (V540)
3. During the last 3 years, has anything (else) bad happened to you that upset you a lot and that you haven't already told me about?

Codes consist of 1 = Yes and 2 = No.

Self-Efficacy Index (V2616)

1. Please look at page 2 of the yellow booklet. After each statement, please put an "X" in the answer category that describes how strongly do you agree or disagree with the statement as it applies to you (i.e., 1 = strongly agree, 2 = agree somewhat, 3 = disagree somewhat, and 4 = strongly disagree).
- a) At times I think I am so good at all.

- b) All in all, I am inclined to feel that I am a failure.
- c) Sometimes I feel that I am being pushed around in life.
- d) There is really no way I can solve the problems I have.

(The following items were excluded from the index)

- e) I take a positive attitude toward myself. (Reversed)
- f) I can do just about anything I really set my mind to do. (Reversed)

Perceived Health Index (V0828, V0915, V0920)

Preamble: The next questions are about your health...

1. In general, how satisfied are you with your health?

Codes consist of 1 = Completely, 2 = Very, 3 = Somewhat
4 = Not very, and 5 = Not at all satisfied. (Reversed)

2. How would you rate your health at the present time?

Would you say it is excellent, very good, good, fair or
poor?

Codes consist of 1 = Excellent, 2 = Very good, 3 = Good,
4 = Fair, and 5 = Poor. (Reversed)

3. How much are your daily activities limited in any way by
your health or health-related problems -- a great deal,
quite a bit, some, a little, or not at all?

Codes consist of 1 = A great deal, 2 = Quite a bit, 3 =
Some, 4 = A little, and 5 = Not at all.

Depression Index (11-item CES-D)

1. Please look at the booklet where you will find a list of statements describing how people sometimes feel (i.e., 1 = hardly ever, 2 = some of the time, and 3 = most of the time). After each statement, please put an "X" in the answer category that indicates how often you felt that way during the past week.

- a) I felt depressed.
- b) I felt that everything I did was an effort.
- c) My sleep was restless.
- d) I was happy. (Reversed)
- e) I felt lonely.
- f) People were unfriendly.
- g) I enjoyed life (Reversed).
- h) I did not feel like eating.
- i) I felt sad.
- j) I felt that people disliked me.
- k) I could not get "going".

Life Satisfaction Index

1. Now please think about your life as a whole. How satisfied you are with it -- are you completely satisfied, very satisfied, somewhat satisfied, not very satisfied or not at all satisfied?

Codes consist of 1 = Completely satisfied, 2 = Very satisfied, 3 = Somewhat satisfied, 4 = Not very satisfied, 5 = Not at all satisfied. (Reversed)

2. After each statement, put an "X" in the box that best describes how strongly you agree or disagree with the statement (i.e., 1 = strongly agree, 2 = agree somewhat, 3 = disagree somewhat, and 4 = strongly disagree). The best answer is usually the one that comes to your mind first...

- a) My life could be happier than it is now.
- b) These are the best years of my life. (Reversed)
- c) As I look back on my life I am fairly well satisfied.
(Reversed)

(The following item was excluded from the index)

- d) I would not change my past life even if I could
(Reversed)

Fatalism Index (V3203)

1. Please tell me how strongly you agree or disagree with each of the following statements (i.e., 1 = strongly agree, 2 = agree somewhat, 3 = disagree somewhat, and 4 = strongly disagree). I will read these rather quickly because the best answer is usually the one that comes to mind first.
- a) When bad things happen we are not supposed to know why. We are just supposed to accept them.
 - b) People die when it is their time to die, and nothing can change that.
 - c) Everything that happens is a part of God's plan.

- d) If bad things happen, it is because they were meant to be.

This measure was coded in reverse for all items.

Vulnerability Index (V2615)

1. After each statement, please put an "X" in the answer category that describes how strongly you agree or disagree with the statement as it applies to you (i.e., 1 = strongly agree, 2 = agree somewhat, 3 = disagree somewhat, and 4 = strongly disagree).
- a) I worry that something bad will happen to me.
- b) I worry that something bad will happen to one of my loved ones.

This measure was coded in reverse for the two items.

Future Planning (V1032)

1. Now I'm going to read a series of questions that you can answer with yes or no? Are you the type of person who plans for the future?

Codes consist of 1 = Yes, 3 = Sometimes (if volunteered) and 5 = no.

Ability to Complete Plans Index

1. Have you usually felt pretty sure your life would work out the way you want it to, or have there been times when you haven't been sure about it? (V1033)

Codes consist of 1 = Pretty sure and 2 = Haven't been sure.

2. When you do make plans ahead, do you usually get to carry out things the way you expected, or do things usually come up to make you change your plans? (V1034)

Codes consist of 1 = Carry out way expected and 2 = Have to change plans. Both items were coded in reverse.

Overall Adjustment

Preamble, now I have some questions about your family situation....

1. In general, how well do you feel you have dealt up to now with your spouse's death and any changes or problems that may have resulted from it? Would you say very well, quite well, somewhat well or not too well? (V0416)

2. In general, how well do you feel you have dealt up to now with your child's death and any changes or problems which may have resulted from it? Would you say very well, quite well, somewhat well or not too well? (V0446)

Codes consist of 1 = very well, 2 = quite well, 3 = somewhat well, and 4 = not too well. These items were coded in reverse.

Appendix B

Table 1

Factor Analysis of Self-Efficacy Items

Item	Factor Loading
1. I take a positive attitude toward myself.	.14
2. At times I think I am no good at all.	.71
3. All in all, I am inclined to feel that I am a failure.	.71
4. I can do just about anything I set my mind to.	.03
5. Sometimes I feel that I am being pushed around in life.	.71
6. There is really no way I can solve the problems I have.	.64

Appendix B

Table 2

Factor Analysis of Life Satisfaction Items

Items	Factor Loadings
1. Now please think about you life as a whole. How satisfied you are with it--	.74
2. My life could be happier than it is now.	.57
3. These are the best years of my life.	.71
4. As I look back on my life I am fairly well satisfied.	.66

Appendix C

Table 1

Descriptive Data of Control and Dependent Variables for Study Sample

Variable	N ^a	Range	M ^b	SD
<u>Control variables</u>				
Age	591	59 - 92	69.70	6.40
Race (1 = Caucasian)	591	0 - 1	.81	.39
Number of children	591	1 - 11	2.88	1.63
Age of eldest child	589	13 - 68	41.89	8.17
Education	591	1 - 17	11.05	3.35
Income	591	1 - 10	4.15	2.38
Other losses	591	0 - 3	.60	.64
<u>Dependent variables</u>				
Self-efficacy	575	1 - 4	3.30	.64
Perceived health	591	1 - 5	3.52	.98
Depression	566	1 - 3	1.37	.31
Life satisfaction	571	1 - 4	2.92	.59
Fatalism	583	1 - 4	3.10.	.73
Vulnerability	584	1 - 4	2.04	.86
Plan for future	591	1 - 2	1.75	.43
Ability to complete plans	591	2 - 4	3.26	.78

^aNumber varies because of missing data.

^bHigher numbers reflect greater perceived health, greater depression etc.

Appendix C

Table 2

Characteristics of the Study Sample

	Bereaved Parents	Bereaved Spouses	Non-bereaved
n	41	143	407
Race			
Caucasian	19	109	352
Other	22	34	55
Age			
M	71.10(2)	73.20(2)	68.33(1)
SD	6.24	6.82	5.75
Number of children			
M	3.29	2.68	2.90
SD	1.85	1.56	1.62
Age of eldest Child			
M	45.49(2)	45.61(2)	40.23(1)
SD	8.37	9.05	7.24
Education			
M	9.27(1)	10.62(1,2)	11.38(2)
SD	3.40	3.72	3.13
Income			
M	3.56(1)	2.82(1)	4.68(2)
SD	2.16	1.73	2.41
Other losses			
M	.61	.50	.60
SD	.54	.58	.67
Time since loss			
M	6.37	7.48	—
SD	3.79	3.70	—
Expectedness of loss			
Unexpected	28	50	—
Expected	13	93	—

*Note 1,2 significant group differences on Scheffe at $p < .05$.

Appendix C

Table 3

Intercorrelations between Control Variables for Study Sample

	2	3	4	5	6	7
Variables						
1. Race (1 = Caucasian)	.02	-.15**	-.03	.25**	.24**	-.04
2. Age		-.21**	.63**	-.12*	-.30**	.02
3. Number of children			.02	-.17**	-.09	.05
4. Age of eldest child				-.23**	-.31**	.00
5. Education					.47**	.06
6. Income						.01
7. Other losses						

* $p < .01$ ** $p < .001$.

Appendix C

Table 4

Intercorrelations of Dependent Variables for Study Sample

	2	3	4	5	6	7	8
Variables							
1. Self-efficacy	.37**	-.48**	.42**	-.05	-.42**	.20**	.30**
2. Health		-.47**	.35**	-.07	-.28**	.16**	.18**
3. Depression			-.45**	.11*	.28**	-.20**	-.27**
4. Life satisfaction				.06	-.22**	.12*	.23**
5. Fatalism					.06	-.10	-.08
6. Vulnerability						-.14**	-.16**
7. Future planning							.11*
8. Ability to complete plans							

* $p < .01$, ** $p < .001$

Appendix C

Table 5

Descriptive Data of Control and Dependent Variables for Bereaved

Variable	N ^a	Range	M ^b	SD
<u>Control variables</u>				
Age	184	59 - 92	72.73	6.74
Race (1 = Caucasian)	184	0 - 1	.70	.46
Number of children	184	1 - 9	2.82	1.64
Age of eldest child	183	22 - 68	45.58	8.88
Education	184	2 - 17	10.32	3.69
Income	184	1 - 10	2.98	1.85
Other losses	184	0 - 3	.53	.57
<u>Dependent variables</u>				
Self-efficacy	179	1 - 4	3.33	.61
Perceived health	184	1 - 5	3.42	1.05
Depression	171	1 - 3	1.43	.35
Life satisfaction	175	1 - 4	2.80	.58
Fatalism	181	1 - 4	3.23	.64
Vulnerability	182	1 - 4	2.10	.91
Plan for future	184	1 - 2	1.68	.47
Ability to complete plans	184	2 - 4	3.27	.75
Adjustment	168	1 - 4	3.06	.99

^a Number varies because of missing data.

^b Higher numbers reflect greater perceived health, greater depression etc.

Appendix C

Table 6

Intercorrelations of Dependent Variables for Bereaved Groups

	2	3	4	5	6	7	8	9
Variables								
1. Efficacy	.46**	-.55**	.40**	-.03	-.39**	.14	.30**	.25**
2. Health		-.46**	.41**	-.03	-.34**	.05	.19*	.13
3. Depression			-.47**	.08	.32**	-.15	-.27**	-.23*
4. Life Satisfaction				.05	-.17	.01	.25**	.30**
5. Fatalism					-.02	-.13	-.07	-.01
6. Vulnerability						.03	-.15	-.09
7. Future planning							.07	.02
8. Ability to complete plans								.15
9. Adjustment								

* $p < .01$, ** $p < .001$

Appendix D

Table 1

Means of Perceived Health by Gender of Parent and Gender of the Deceased Child For Bereaved Parents

Gender of Deceased Child	Fathers			Mothers		
	n	M	SD	n	M	SD
Son	14	3.76	.79	16	2.92	1.30
Daughter	5	2.80	1.71	6	3.61	.68

Appendix D

Table 2

Means and Standard Deviations of the Ability to Complete Plans
by Gender and Expectedness of Loss For Widowed Adults

Expectedness of loss	Men			Women		
	n	M	SD	n	M	SD
Expected loss	23	3.61	.50	70	3.11	.77
Unexpected loss	8	3.25	.71	42	3.40	.70