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Adult Sibling Loss: Family Dynamics and Individual Adult Sibling Loss: Family Dynamics and Individual Characteristics

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by

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Abstract

ADULT SIBLING LOSS: FAMILY DYNAMICS AND INDIVIDUAL CHARACTERISTICS

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School of Social Work - Virginia Commonwealth University, 1992

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The current study investigated family, individual and sibling relationship variables of adult sibling loss, using a cross-sectional survey design. A purposive sampling procedure was used to recruit adult subjects that had experienced the death of an adult sibling within the last five years. Ninety-four subjects responded to the initial request with 84 subjects returning questionnaires for an 89% response rate. Family variables of communication, cohesion, and adaptability and individual variables of individuation, self esteem as well as level of grief were operationalized using standardized instruments through a mailed questionnaire.

It was predicted that significant relationships would be found between family variables and current level of grief. It was also predicted that individual characteristics (individuation, self esteem, church attendance, and cause of death) would be significantly related to the level of grief. Characteristics of the sibling relationship (frequency of

contact, communication, perceived emotional closeness, geographical proximity, age differential and same sex) were predicted to reveal significant relationships. Bivariate analysis yielded support for only four of the sixteen hypotheses. No family variables were related to the subjects' level of grief at the time of the survey. The individual characteristics of individuation, self esteem and church attendance were all significantly related to the level of grief. Support was also found for the sibling relationship variable of geographical proximity with level of grief.

Multivariate regression analysis was used in testing two models that investigated demographic, family, individual and sibling relationship variables with current level of grief. The first model included all variables that were statistically significant at the bivariate level and relevant demographic variables. In addition, the level of grief at death and the amount of time since death were included in the model. The level of grief at death was the strongest predictor of current level of grief. The first model explained 61.7% of the variability of current level of grief. The second model selected those variables that had significant t-values from the first model. The level of emotional involvement was the strongest predictor of the level of grief at death. This model explained 58% of the variability of current level of grief. The level of grief at death was the strongest predictor of the current level of grief in both models.

CHAPTER I

Problem Statement

Scope and Significance of the Problem

Loss is a circumstance in which a person has been deprived or has been without something previously valued (Peretz, 1970). It is a universal phenomenon which affects all persons across the entire life span. Some losses will involve material possessions, others represent losses associated with changes in developmental life stages while others involve the death of significant others. Regardless of the type of loss, the experience results in a specific set of behaviors and expectations. The reaction to loss, known as grief, is manifested in many different ways. For some, grief may last for a short period of time but for others the loss is devastating with no resolution experienced.

While the reaction to any specific loss may display certain common characteristics, this research study focused specifically on loss through death. The literature is abundant with studies that examine the grief reaction to the death of a spouse (Kraus & Lilienfeld, 1959; Maddison & Viola, 1968; Maddison & Walker, 1967; Marris, 1958; Parkes, 1964b, 1971, 1972, 1972a; Parkes, Benjamin, & Fitzgerald, 1969; Rees & Lutkins, 1967; Young, Benjamin, & Wallis, 1963; Zisook &

Shuchter, 1986). Other familial relationships that have been explored include childhood sibling loss (Bank & Kahn, 1982; Cain, Fast, & Erickson, 1964; Hilgard, 1969; Pollock, 1962, 1978; Rabkin & Krell, 1979). However, a significant gap exists in the present literature concerning other familial relationships relative to the grief reaction. This study examined the grief reaction of the surviving sibling who has experienced the death of an adult sibling. There is little empirical evidence concerning adult sibling relationships and even fewer studies that focus exclusively on the loss of that relationship.

Annually, it is estimated that eight million Americans experience the death of an immediate family member (U.S. Department of Health & Human Services, 1988). It is unknown how many additional people experience the death of a significant other. While the experience of the death of an adult sibling is quite common, it has remained largely unexplored. The present study focuses on the experience of adult sibling loss and examines how the characteristics of the sibling relationship as well as attributes of the family of origin and procreation can influence the resolution of grief in adult sibling loss. Each loss requires social workers to have a unique understanding of the dynamics of grief and the importance of assessing and providing appropriate services for the bereaved client. Through investigation of this previously

unexplored familial relationship, the social work profession as well as other professional helpers will be able to provide appropriate services to clients experiencing this particular kind of loss. Social workers, in addition to encountering clients who have experienced adult sibling loss, work with those who represent a variety of similar losses that precipitate a grief reaction. Such circumstances may include loss of marital status through separation or divorce, loss of physical and mental abilities, loss associated with adoption or foster care placement and loss of employment.

Current Knowledge Base: Bereavement

Characteristics of Grief

The literature reveals a lack of conceptual clarity in the usage of the terms grief, bereavement and mourning. Many definitions have been used to describe all three phenomena. A review of the literature suggests that the three terms are frequently used interchangeably. Freud (1917) for example, used the term mourning to describe the process of readjusting to the loss of a loved one. This same process as described by Lindemann (1944) is identified as grief. Raphael (1984) provides some conceptual clarity in using the three related concepts. Grief is the reaction to loss and involves a physical, social and psychological response. Bereavement by contrast implies a state of being due to the loss. Mourning refers to the culturally prescribed norms and rituals that are manifested at the time of death.

While various authors frequently use the terms bereavement, grief and mourning interchangeably, the definitions developed by Rando (1984) will be used for the purpose of this study. Rando's differentiation among the three concepts provides a basis for understanding related but different phenomena.

Rando (1984) views grief as a process of psychological, social, and somatic reactions to the perception of loss. This implies that grief is (a) manifested in each of the psychological, social and somatic realms; (b) a continuing development involving many changes; (c) a natural expectable reaction (in fact the absence of it is abnormal in most cases); (d) a reaction to many kinds of loss, not necessarily death alone; and (e) based upon the unique, individualistic perception of loss by the griever, that is, it is not necessary to have the loss recognized or validated by others for the person to experience grief. Bereavement by contrast refers to the state of having suffered a loss. It does not describe specific behaviors as a result of the death, but rather serves as a labeling process for a person who displays behaviors associated with the death of a significant other. Mourning refers to the culturally prescribed rituals that provide a vehicle toward a resolution of the grief reaction. Some of these rituals include viewing the body, conducting a wake or viewing and processionals to the cemetery. While grief may be precipitated by a number of losses, the central

focus of this study was upon the grief reaction as a result of loss through death.

Normal grief, often referred to as uncomplicated grief, encompasses a broad range of feelings and behaviors that are common to most individuals who experience the death of a significant other. This broad range of feelings can be classified into four major categories that include: (1) physical symptoms; (2) mental symptoms; (3) emotional symptoms, and (4) behavioral manifestations (Burnell & Burnell, 1989).

One of the obvious physical symptoms that can be observed in the response to a loss is sobbing and crying. In addition, the bereaved person experiences a feeling of tightness in the throat with difficulty breathing (Lindemann, 1944). Parkes and Brown (1972) and Worden (1982) describe additional physical symptoms which include lack of energy, muscular weakness, lack of coordination and a dry mouth. Other physical symptoms that have been reported include insomnia, anorexia and weight loss. Each of these symptoms is also characteristic of depression, thus making it very difficult to accurately diagnose normal grief reaction from clinical depression. In addition to physical symptoms, the bereaved person experiences mental symptoms as a normal response to the loss of a significant other. The mental cognitions include a sense of confusion and disbelief. These symptoms are most visible in the early stage of the bereavement process and

diminish over time.

The preoccupation with thoughts about the deceased is often experienced and attention is given to the details of the situation leading to the death. One of the salient characteristics of mental symptoms is the need for the bereaved person to give or provide some explanation for the death and somehow make sense out of a confusing situation. For many people experiencing grief, the explanation would be quite simple, particularly if the deceased had experienced a timely, expected death. For an untimely death, such as death of a teenager or death by means of an auto accident, the grieving person would consume more time constructing an explanation that would provide some meaning to the particular death. The meaning or explanation given to the significance of the death must be understood in the cultural and religious background of the survivor (Geertz, 1973; Rosenblatt, Walsh, & Jackson, 1977).

Cognitive attempts to explain the death of the deceased are linked to cognitive disturbances such as the inability to concentrate, or the presence of nightmares or dreams. The cognitive changes serve as a defense mechanism to prevent the human organism from an overwhelming sense of anxiety and fear (Raphael, 1983).

A variety of emotional symptoms are displayed in the process of grieving. Even though the emotional reactions vary in degree of intensity they are continuous throughout the

process. Worden (1982) has identified four specific emotional reactions in the grieving process. They include: (1) denial; (2) sadness and depression; (3) guilt and anger, and (4) relief.

Refusing to accept that a death has occurred is a normal response upon the initial knowledge of the death of a significant other. The mechanism of denial serves to assist the survivor in coping with the overwhelming sense of loss of a significant other. The more sudden the death the more the disbelief in the reaction of the survivor. The denial may be observed in various behaviors ranging from "It can't be" to preserving the personal belongings of the deceased. Regardless of the specific manifestation of denial behavior, the behavior serves as a coping mechanism in preventing overwhelming panic and despair.

Sadness and depression have also been identified as symptoms of the bereaved person. There is a societal expectation that a person will feel sad and depressed upon the death of a significant other. While feelings of sadness and depression are typical responses of the bereaved person, the emotional feelings diminish with time. When these emotional feelings remain constant over time or intensify, a pathological reaction is possible. Parkes and Weiss (1983) identified the "persistent wish to be dead" as significant of an unhealthy condition which was characteristic of a pathological response.

Guilt and anger are emotions that are experienced by the bereaved person. Guilt is particularly evident in situations in which the survivor has either failed to take measures to prevent the death from occurring or when the survivor believes that he/she treated the deceased unfairly or poorly. The anger may at times, be directed at the deceased person for suddenly "leaving" the survivor to continue life alone. Anger is often displayed toward medical personnel or anybody who the survivor believes could have prevented the death.

Relief is the last emotional feeling that is experienced by the bereaved individual. A sense of relief can be experienced in knowing that life has ended and that the deceased has ceased their suffering. Relief can also occur knowing that interrupted routines can begin to become normal again.

Many behavioral manifestations can be identified in the life of the bereaved person. One of the most common is social withdrawal. The loss of the significant other creates a change in a person's status and the survivor may find it difficult to establish new relationships based on the newly acquired status. The loneliness that may result from the death of a spouse or significant other creates feelings in which the bereaved person becomes isolated.

Pathological Responses

Although early studies provided a description of common symptoms of the course of grief, a clear distinction between

what is considered a normal response and a pathological response is not easily made (Zisook & DeVaul, 1985). Initially, the symptoms are identical. There has been no universally accepted definition to clearly distinguish between these two grief reactions. Although it is difficult to distinguish between the normal and pathological grief, the distinction is clinically important. A normal grief reaction is usually resolved without the assistance of therapeutic intervention (Zisook & DeVaul, 1985).

Pathological grief by comparison is associated with social, psychological, and medical morbidity which may warrant intensive therapeutic intervention. It is difficult to determine at what specific point in the bereavement process the person is exhibiting a pathological response. With few exceptions, the symptoms displayed in both normal and pathological syndromes are initially the same. The hallmark of the resolution of grief is "the ability of the bereaved to recognize that they have grieved and can now return to work, reexperience pleasure and respond to the companionship and love of others" (Zisook & DeVaul, 1985, p. 497).

Time serves as a critical variable in the determination of identifying grief as normal or pathological. For example, the first response to learning of the death of a significant other is characterized by a sense of shock, numbness and a sense of disbelief. Although this response is most common, the same response one month after the death would be diagnosed

as a pathological response. Some authors view the process as a sequential series of steps or tasks that need to be accomplished before resolution of the grief response has been completed. Lindemann (1944) first described this process and coined the term "grief work." Failure to "work through" these particular tasks in a prescribed period of time constitutes a pathological response.

Although most people successfully complete the grieving process, for many the process is one in which the survivor is simply unable to return to the daily activities that existed prior to the death of the significant other. For this group, the sequelae to the death of a significant other follows a different course. These grief reactions have been variously identified as morbid (Lindemann, 1944), atypical (Parkes, 1972), pathological, (Volkan, 1972), complicated, (White & Gathman, 1973), absent, (Deutsch, 1937), neurotic, (Wahl, 1970), grief related facsimile illness (Zisook & DeVaul, 1977), or unresolved (DeVaul & Zisook, 1976; Lazare, 1979). The response is characterized by an abnormal or pathological grief response.

As previously stated, there is no universally accepted definition of what constitutes pathological manifestations of grief. Burnell and Burnell (1989) have identified four general areas that signify the presence of pathological grief. Based on a summary of clinical studies, they contend that the pathological grief response is very intense or very prolonged.

The second sign of a pathological response is characterized by the grief reaction being inhibited in its expression or arrested in one of the phases of the process. The third is the manifestation that the grief has developed into a full clinical illness, depression being the most frequent. The fourth criteria is self perception in difficulty in coping with the loss. Given these criteria it is estimated that 10% to 15% of the population develop pathological symptoms following a loss (Clayton & Darvish, 1979; Parkes & Weis, 1983; Zisook & DeVaul, 1983).

Parkes and Weiss (1983) have identified three different typologies of pathological grief reactions. These pathological responses include: (1) chronic, (2) conflicted, and (3) inhibited and delayed. A person who exhibits a chronic grief response seems unable to resolve the loss of the object. The person exhibits the same behaviors that are to be found in acute grief. The salient feature that distinguishes the normal and pathological responses relative to chronic grief is that for the chronic griever the intensity of the reactions does not diminish over time.

A conflicted response is the type of grief response in which the relationship was characterized by a large degree of conflict within the relationship. The emotion and feelings of the relationship were characterized by ambiguity. Parkes and Weiss (1983) found that relationships that contain high levels of ambiguity do not fair very well, in comparison to those

relationships which were identified as strong relationships.

A delayed grief response is one in which a normal response generally occurs, but the time sequencing is altered due to the perceived need to be strong for the family or there may be too many activities occurring that prevent the survivor from going about the business of attending to the grief. This response to bereavement is different from the inhibited response in which people exhibit behaviors which may present only a partial or incomplete reaction to the loss.

Other concepts which have been developed in the loss and grief literature are anticipatory and acute grief. Anticipatory grief is the response that precedes the inevitability of a loss. Acute grief refers to the behaviors which are present immediately after the loss of a significant other. However, anticipatory grief is the response to a known impending death.

Early Explanations

One of the earliest attempts to explain the phenomenon of grief was put forth by Freud (1917). Freud's involvement with grief was only a secondary interest to that of depression. The depression exhibited by one of his clients was believed to be a result of the reaction to the death of the client's father. Freud concluded that mourning was a regular reaction to the loss of a loved one and that the reaction involved a process of withdrawing the libido from the deceased and, over time reattaching and reinvesting the time and energy to other

objects or relationships. Freud also recognized that patients did not always respond to death in a positive way and characterized patients that displayed an unfavorable response as having an ambivalent relationship toward the deceased. These early efforts provided no empirical evidence to support the beliefs about the grief process. They did, however, open the doors for further research and investigation into the phenomenon of grief.

The focus of the early efforts to understand the phenomenon of grief was anchored to Freud's psychoanalytical view of human behavior. Freud contributed to the early understanding of grief by observing and recording the process which follows the death of a significant other. Additional efforts to describe and understand the phenomenon of grief concentrated on the reaction and behaviors displayed after the death of a spouse. The literature is abundant in detailing the reaction of widows and to a limited degree widowers (Maddison & Viola, 1968; Marris, 1958; Parkes, 1964b; Parkes, Benjamin, & Fitzgerald 1969; Parks & Brown, 1972; Parkes & Weiss, 1983; Rees & Lutkins, 1967; Young, Benjamin, & Wallis, 1963). Although the focus was on the spousal dyad, the emphasis continued to focus on the individual response and reaction to the identified loss. These research efforts present a descriptive analysis of the phenomenon of grief.

Lindemann (1944) added to the knowledge base of grief by conducting a systematic study of the process after the death

of a significant other. His study focused on determining the differences between normative and pathological reactions to grief. Lindemann's work was significant in contributing to the understanding of bereavement in that it represents an effort to systematically study the phenomenon of grief and secondly, his work presents a specific course of time for the resolution of the grief. Lindemann's concept of "grief work" is an attempt to systematically describe the process by which grief could be resolved. Drawing from the works of Freud, Lindemann believed that the grief could be resolved in four to six weeks. Subsequent studies do not provide empirical data to substantiate Lindemann's early works regarding timing. Empirical evidence suggests that a successful resolution for a "normal" grief reaction required a longer length of time (Dimond, Lund, & Caserta, 1987; Maddison & Viola, 1968; Parks, 1964b, 1970, 1972; Zisook, 1986).

Parkes (1964b, 1965, 1970) and Bowlby (1961, 1969) further advanced the knowledge base regarding grief. The efforts of both resulted in the collection of empirical data which formed the theoretical model of examining the process of grief with attachment theory. Although the individual's response to the death was still the focal point, more attention was given to the examination of the intervening variables that affect the outcome of the grief resolution.

Familial Response to Grief

Over the last two decades, family therapists have

demonstrated a growing interest in the phenomenon of grief. Family studies literature examines grief as a stressor requiring the family to employ various coping strategies to alleviate the stress (Burr, 1973; Glick et al., 1974; Hill, 1949; Lieberman, 1971; Lopata, 1973; McCubbin, Cauble, & Patterson, 1982). The examination of grief within the context of the family signifies a change from the early interest in the phenomenon of grief. Heretofore, the process of grief, was viewed primarily from an individualistic perspective and little consideration was given to a familial response. Although recognizing each individual within the family will have his/her own unique response to the death, it has also been recognized that family functioning and coping ability can influence the outcome of family bereavement (Bowen, 1976; Hill, 1949; Lieberman, 1971; Lopata, 1973; Rosen 1990).

The literature indicates that the focus of the majority of studies has been to examine the course of grief upon the death of a spouse, particularly for widows. Additional studies have examined the familial response to the death of children in the family of origin as well as the effects on the childhood siblings. While these areas have contributed to the current knowledge of grief, no empirical data exists that examines and explores the grief reaction of sibling loss in adulthood.

The sibling relationship is the longest familial relationship, spanning six decades or more (Cicirelli, 1982).

There is a familial and societal expectation that the tie will remain throughout the lifespan as siblings share a common culture, family traditions, events and memories (Moss & Moss, 1986). These common experiences create an emotional bond which extends well into adulthood in ways that have previously been unexplored. The influence that siblings have upon one another is often profound and overlooked. Siblings serve as role models to each other, provide a practice arena for interaction skills, and serve as a social support to one another. Lamb & Sutton-Smith (1982) indicate that the sibling relationship is the only heterosexual relationship in which adults can express affection and closeness with minimal risk of violating confidentiality. Social activities such as birthdays, holidays and anniversaries leave an indelible imprint on the sibling relationship.

Approximately 80% of the United States population grows up with the presence of one or more siblings (Adams, 1968; Cicirelli, 1980b). Empirical studies on the sibling relationship have focused on the childhood sibling relationship, and specifically related to issues of rivalry, deprivation or birth order (Adams, 1972; Kammeyer, 1967). The limited adult sibling studies indicate that a large number of adult siblings maintain regular contact with each other throughout the life span. While the motivation for this regular contact is unclear, it is postulated that the regular contact provides the basis for a meaningful relationship

within the family system. An alternative hypothesis is that siblings see one another due to the "obligatory" commitment to the family. Regardless of the motivation for the contact it is evident that adult siblings have regular contact with each other. Cicirelli (1982) found that only 3% of siblings in his study had had no contact with their siblings within the past two years.

While it is clear that most siblings have life-long contact with each other, it is less clear about the nature and quality of this familial relationship. Numerous questions about adult sibling relationships exist concerning the reasons for the contact and the extent of emotional involvement and influence with the adult sibling in times of crisis. The literature suggests that adult siblings have more frequent contact as they discuss and make preparations for living arrangements for their elderly parents.

Although the importance of the adult sibling relationship across the life span is quite evident, little attention has been given to this unique familial relationship. Of specific interest is the response of surviving adult siblings in the experience of the death of another adult sibling. Even though a large body of literature exists that examines the course of grief upon the death of a significant other, the response of an adult sibling by an adult sibling has largely been ignored. Empirical evidence exists to suggest that adult siblings rely on each other for mutual support in times of crisis. However,

no evidence is available to determine how and in what ways adult siblings are effected when that support is terminated by the death of an adult sibling.

Focus of the Current Study

This research study was an attempt to begin addressing this important gap in the literature. The proposed study examined the grief reaction that occurs in adult siblings upon the death of an adult sibling. Characteristics of the sibling relationship, family of origin and family of procreation related to the grief reaction were examined.

While numerous studies examine the sibling relationship in the formative years, empirical data is extremely limited in the examination of the sibling relationship in the adult years. The investigation concerning the relationship of adult siblings has only been within the past ten years and most of the data is descriptive (Bank & Kahn, 1982; Lamb & Sutton-Smith, 1982). There is a void in the literature that addresses the nature of the grief reaction for those that experience the death of an adult sibling. As previously stated, the current study examined the resolution of grief with adults who experienced the death of an adult sibling. A family systems perspective was the organizing conceptual framework that bridged the areas of the adult sibling relationship and the process of grief. This study provided knowledge about the quality and nature of adult sibling relationships and how adult siblings experienced the course of

grief upon the death of an adult sibling. This study examined what qualities and attributes of the survivor's family effect the grief experience. The following chapter provides a review of the literature in the areas of grief and sibling relationships.

CHAPTER II

Review of the Literature

This chapter includes the following sections: (1) a discussion of the development of the current knowledge of grief and bereavement; (2) a review of the theoretical and clinical literature regarding bereavement; (3) a review of current knowledge of adult sibling relationships; (4) a review of the theoretical and clinical literature on death in family systems; and (5) a discussion of the purpose and parameters of the proposed research study.

Current Knowledge of Grief and Bereavement

Theoretical and Clinical Contributions

Freud's conceptualization of grief opened the door for further research and theory building. Three researchers have had particular impact on theory building regarding grief. The following section provides a discussion of the contributions of these three researchers (Lindemann, Bowlby, and Parkes).

Lindemann (1944) conducted a large scale examination of the phenomenon of grief. This influential study consisted of psychiatric interviews with relatives of the Boston Coconut Grove fire as well as survivors of World War II and represents one of the earliest attempts to study the reactions of survivors of an unexpected death. Lindemann's work made a

significant contribution to the grief literature by introducing the concept of "grief work" and identifying the differences between normal and abnormal reactions to the loss of a significant other.

According to Lindemann, a person's "grief work" includes working through fear of insanity and hostility. Lindemann identified grief work as a process that a person must use to return to pre-loss functioning. He identified three basic tasks that needed to be accomplished before a person would be able to return to pre-loss functioning. These tasks included emancipation from the bondage of the deceased, readjustment to the environment, and the formation of new relationships. The extent to which a person recovers from the loss depends on the degree to which they complete their "grief work".

As mentioned, the second contribution of Lindemann's work is the systematic attempt to examine the process of differentiating normal from pathological responses to loss. These early works identified the symptomology of acute grief as a definite syndrome with psychological and physiological characteristics. Subsequent studies (Marris, 1958; Parkes, 1975) have similarly described the symptomology of normal and pathological responses to bereavement. The symptoms observed for typical and atypical grief were characteristically different from each other. The symptoms that Lindemann describe as pathological included: (1) overactivity; (2) progressive isolation from friends and relatives; (3)

hostility toward specific persons who in some direct or indirect way may be held accountable for the death; (4) enduring patterns of loss with the inability to initiate or maintain activity; and (5) self-punitive behavior. Morbid grief reactions can occur in which the person's grief is delayed, or distorted. The focus of assessment and treatment was exclusively from the perspective of the individual and omitted any consideration of the role that was played by the deceased in the family system.

Bowlby (1969) conceptualized the phenomenon of grief as a universal response to the separation of an object of significant value. Most of Bowlby's studies focused on infants experiencing maternal deprivation. According to Bowlby, the reaction to any given loss elicits particular responses because of the attachment that has developed from the relationship to the deceased. The bonding that takes place forms early and is believed to be an instinctive propensity of human beings. For example, a young child is content to be in her mother's presence but is very likely to be distressed in her absence. Bowlby's attachment theory is especially relevant in the childhood years, but bonds established early are believed to remain active throughout adult life.

Bowlby (1960, 1961, 1963, 1969) rejected the Freudian view of grief and looked at grief as an instinctive pattern of behavior triggered by a loss. Resolution of the grief

experience occurs when either the lost object is found or through a gradual extinction of the bond to the lost person or object. Bowlby's observations included the separation of human infants from their mothers and animals separated from their mothers. Reactions to the loss include three successive stages consisting of protest, despair and attachment.

The protest stage serves as a method of retrieving the lost object. Much effort is spent in searching for the lost object. The searching behavior fails to locate the lost object and eventually gives way to a sense of despair as a result of these failed attempts to recover the lost object. A sense of despair is created by confusion and disorganization, knowing that life can never be the same without the presence of the lost object. Ultimately the survivor begins to withdraw and detach from others. This process leads to the reality that life will continue on and that new behaviors requiring investment in other relationships must occur as a part of reorganizing the patterns of behavior used prior to the lost object.

Similar to animals, people develop strong affectional bonds which meet safety and security needs. When these bonds are broken a strong emotional reaction is evoked. A concern of Bowlby was to determine how and why certain grieving responses lead to pathological grief. Hypothesizing a three stage sequence of bereavement, Bowlby proposed that there is a considerable amount of energy expended in an effort to

recover the lost object; he refers to this activity as searching behavior. The second stage is a period of disorganization when the person faces the reality that interaction with the deceased is no longer possible. Finally a period of reorganization has been observed in which new relationships are initiated and the bereaved individual has returned to the daily functions that were present before the death.

Parkes (1972) proposed that a person's grief work consists of a four stage model which includes (a) sense of numbness, (b) intense yearning for the deceased, (c) disorganization and despair, and (d) reorganization of behavior as an adaptation to establishing new roles and relationships. Initially, a person experiences a sense of numbness as he/she is informed of the death of their significant other. This initial state is characterized by a sense of disbelief that the significant other has died and is usually expressed in common phrases such as "Oh no! It can't be", or "That is impossible!" This stage or reaction usually lasts anywhere from a few hours to a few days.

The sense of numbness is usually replaced by an intense yearning or pining for the deceased. This stage is often characterized by searching behavior in which the survivor at times sees an image or imagines auditory sounds of the deceased.

The third stage is characterized by a deep sense of

despair and depression often exhibiting isolation in which the bereaved realizes that regardless of what is said or done the deceased will not return and that life will never be the same without the presence of the deceased. Finally the despair and isolation is replaced with a sense that life will and must continue without the deceased. Energy is redirected and reinvested in reorganizing the bereaved person's life and new relationships are formed enabling a return to their activity level experienced prior to the death of the significant other. Although Parkes did not specify the length of time to complete the grieving process various studies have shown symptoms of a pathological response several months after the death of the spouse (Engle, 1961; Bornstein, Clayton & Hailikas, 1973; Parkes, 1971).

The early works of these three researchers (Lindemann, Bowlby, and Parkes) served as a foundation for subsequent models of grief which have been developed. The primary efforts of Lindemann focused on the determination of what reactions distinguish a normal from a pathological response to grief. Bowlby by contrast, developed a theoretical understanding of the process of a normal grief by first observing the reaction of various primates who became separated from their parents. Parkes introduced one of the earliest conceptual models of the grief response.

Models of Grief

A selective review of the literature revealed several

widely used models that explain the process of grief. Although no widespread agreement exists, each model provides a useful view for understanding the phenomenon of grief. The various models provide a description of the "normal" or expected responses to grief with deviations from the expected behaviors regarded as pathological or abnormal responses. The resolution of grief is not viewed as a single event or response, but rather is a series of tasks or processes which occur over a period of time. Various stage models have been developed to explain the process of grief as well as the tasks to be accomplished to resolve the particular grief. These various "stage models" identify the expected behaviors that constitute a "normal" grief response. All models that have been developed indicate a sequential arrangement in that the resolution of grief cannot be obtained unless the survivor has resolved the tasks or issues in the previous stage.

Parkes and Weiss (1983) proposed a three stage model of recovery to bereavement. The first stage consists of the acceptance of the death. The acceptance is cognitive recognition that the death has indeed occurred. The second stage is an emotional acceptance that the deceased will not be present again. In the second stage, the pleasant memories of the deceased outweigh the emotional pain that is experienced by the survivor. The third stage in the recovery process is the development of the model of self which matches the reality of the external environment. In other words, the survivor

adapts to the fact that life is different since the death of the spouse and that new relationships begin to form as a result of the spouse's death.

Worden (1982) also views the resolution of grief as a process that occurs in phases. His model of bereavement includes: (1) accepting the reality of the loss, (2) experiencing the pain and the grief, (3) adjusting to an environment in which the deceased is missing and (4) withdrawing emotional energy and reinvesting in other relationships. His model provides some contrast to Lindemann and Bowlby in that Worden views the third and fourth stages as separate entities whereas Lindemann and Bowlby include both in one stage.

Glick et al. (1974) conceptualized the normal grieving process in three stages. The initial stage begins at the time of death and continues several weeks beyond the burial of the deceased. The period is characterized by feelings of numbness, emptiness, disbelief and profound sorrow. The intermediate phase begins several weeks after the funeral and lasts for approximately one year. Glick identifies obsessional review and searching for the meaning of the death as characteristic of this stage. In the last stage, the recovery stage, energy is reinvested in other pursuits enabling the survivor the opportunity to reattach to another person.

A summary of the various conceptual models of grief are

identified in the following table. Two categories of behaviors that provide an understanding of the process of grief have been identified in the present literature. The first set of behaviors refers to those which are manifested in the initial stages of the process and although regarded as normative behavior, they limit the awareness of the significance and impact of the loss. In the initial stages the behavior is a manifestation of denial.

The second set of responses is those which demonstrate that the bereaved person is beginning to "let go" of the deceased, and in so doing, begins to gain or increase their awareness and significance of the loss. As this process continues over time, the person's life and energy is redirected and culminates in resolution of the loss.

Grief and Physical Health/Mortality

The question of whether bereavement has any effect on mortality and/or physical health has been an early focus of several research efforts. Studies of bereavement related to mortality have focused primarily on conjugal bereavement and the effects of bereavement on mortality of the surviving spouse. Eight studies were reviewed that examined the effects of bereavement on mortality (Clayton, 1974; Cox & Ford, 1964; Helsing & Szklo, 1981; Maddison & Viola, 1968; Parkes, 1964a, 1970, 1972; Zisook & Shuchter, 1986).

In one of the largest studies, Cox and Ford (1964) monitored the mortality rates of 60,000 widows who first

Table 1

Models of Grief

	Attempts to Limit Awareness					Gaining Perspective		
Researcher	Initial Awareness	Holding On	Letting Go	Awareness	Healing	Acceptance	Resolution	Reformulation
Freud (1917)		Separation/ anxiety	Repression Depression	Mourning		Decathexis	Reinvestment	
Engel (1961)	Shock/disbelief Sudden death	Pathologic reactions	Pathologic reactions	Awareness	Recovery		Restitution	
Lindemann (1944)	Loss of patterns of conduct	Somatic distress Guilt Hostile reactions	Preoccupation	Active review			Testing new patterns of relating	
Parkes (1971, 1972a)	Disbelief Alarm Unreality	Searching Anger/Guilt Feeling responsible Pining/yearning Anxiety	Welcoming death Isolation Withdrawal	Loneliness	Mitigation		Visiting grave	Socializing Gaining a new identity Return of humor
Marris (1958)	Feelings of unreality	Physical disturbance Inability to surrender past Clinging Hostility	Withdrawal Apathy	Brooding Acute Conservation impulses		Abstracting fundamental meaning	Resolution Reintegration Restoration of continuity	
Bowlby (1960, 1961, 1963)	Shock	Protest	Apathy	Despair		Detachment		
Worden (1982)	Shock			Experiencing pain of grief		Acceptance	Adjustment	Reinvesting

Adapted from Schneider, J. (1984). Stress, loss and grief (pp. 84-86). Baltimore: University Park Press.

received pensions in 1927. A five year longitudinal study was conducted comparing the mortality rates of the widows seeking pensions with the widows in the general population. The results indicate that widows that were monitored had higher mortality rates than control groups. The highest risk of mortality occurred during the first year of bereavement.

Young, Benjamin and Wallis (1963) conducted a similar study using 4,486 widows. Their findings support the work of previous studies revealing that the mortality rates for bereaved subjects is higher than nonbereaved. Epstein et al. (1975) in reviewing the literature on bereavement, conclude that "in general, data among the replicated studies show that the risk of dying is at least twice as great for widows and widowers at all age levels for a variety of diseases" (p. 541).

Helsing and Szklo (1981) conducted a nonconcurrent prospective study in which 1,204 male and 2,828 female subjects were identified as enumerated in the 1963 census. In contrast to many of the previous studies reviewed, this study had a large number of married group matched to the widowed group on race, sex, year of birth, and geographic residence. Analysis of the 4,032 widowed was made with an equal number of controls. The results of this carefully controlled study indicate that mortality rates were higher for males than females. In addition, females had no significant difference in mortality rates when compared to female married controls.

Widowers experienced higher mortality rates in every age grouping when compared to the married male control group.

Although most of the empirical data suggest that those who are bereaved suffer from higher levels of mortality, two studies were reviewed which yielded contrary findings (Clayton, 1974; Helsing & Szklo 1981). Clayton studied 109 widows at one month and thirteen months post bereavement. A nonbereaved control group was also used in this study. Interviews were conducted at one and thirteen months after the death of their spouse. Although the bereaved group displayed more psychological and physical depressive symptoms, no difference was found in mortality rates at 13 months.

Although many studies focus on the older population of widows, Parkes (1972a) studied 68 bereaved widows under the age of 45. The Harvard Study (Parkes, 1972a) was conducted to determine the amount of physical and mental ill health that had occurred in young widows and widowers 14 months after the death of their spouse. The sample consisted of 49 widows, and 19 widowers, (N=68) under the age of 45. Of the number of participants that Parkes selected to study, only 34% participated. The sample was matched with a control group of non-bereaved married men and women matching for age, sex, family size, nationality and socio-economic class. The results of the study showed that the bereaved group differed in having had more hospital admissions for physical and emotional problems. The bereaved group also reported more

disturbance of sleep, loss of appetite and weight and had increased their consumption of alcohol, tobacco and tranquilizers.

The Harvard Bereavement Study identified three specific syndromes associated with pathological grief. The first is unanticipated grief in which there is no or very little forewarning of the death event. The second syndrome is conflicted grief. Conflicted grief is characterized by the presence of problems in the marriage relationship prior to the death of the spouse. One point of view relative to this syndrome is the belief that the surviving spouse is mourning both the marriage and a relationship that never developed its potential. The third syndrome is that of chronic grief. Those subjects which displayed this syndrome had an extended period of yearning for the deceased as well as a high level of dependency on the deceased spouse. The surviving spouse was unable to manage daily living activities by him/her self. In addition, the chronic griever demonstrated low levels of self confidence. The implication of these syndromes would indicate that one's previous method of coping and level of self esteem would be characteristic of other areas of living and not be limited specifically to the grieving process.

Maddison and Viola (1968) examined the prevalence of health deterioration in two samples of bereaved widows. Subjects (132) were asked to complete a questionnaire 13 months after the death of their husband. Matched controls of

nonbereaved individuals were used. Maddison and Viola concluded that the recently bereaved subjects had higher than normal health deterioration after thirteen months of bereavement (21.2% for the bereaved group and 7.2% for the control group).

An earlier study by Parkes (1964a) involved a case analysis of 44 widows. Within this group, Parkes discovered that the bereaved widows had more visits to their physician than did the nonbereaved group. In the London study (Parkes, 1970) 22 widows were administered questionnaires, followed by an interview. The general health of those in the bereaved group was not as good as the general health of the nonbereaved.

Another study by Parkes (1970) also examined the effects of bereavement on mortality. Twenty-two subjects were interviewed and the results confirm those of other studies in that the general health of the bereaved is not as good as the nonbereaved.

Even though most of the empirical data suggest an impairment of the surviving spouse, the conclusions must be tentatively accepted in light of the studies by Clayton (1974) and Helsing and Szklo (1981). The inconsistency of findings may represent methodological differences such as the lack of controls or sampling bias in the studies. The failure to control for many potential antecedent variables such as age, the suddenness of the death, social class, education, nature

of illness, social support, quality of the marital relationship, and the presence of multiple life crises limits the degree to which generalizations can be made. Table 2 provides a summary of studies regarding grief and rate of mortality as well as grief and physical health.

Bereavement and Mental Health

The relationship between bereavement and its effects on a person's mental health has not been clearly established in the literature. As previously mentioned, the symptoms of grief and depression are very similar in the early stages of grief. Time serves as the variable that generally determines whether or not a person is clinically depressed. Six studies were reviewed that examined the effect of bereavement on a person's mental health (Dimond, Lund & Caserta, 1987; Faberow et al., 1987; Gallagher et al., 1983; Zisook & Schuchter, 1986; Sanders, 1980; and Zisook, Shuchter & Schuckit, 1985).

Dimond, Lund and Caserta (1987) conducted a two year longitudinal study of recently bereaved widows and widowers over the age of 50 identified through the obituaries in the local newspaper. Respondents were administered a coping difficulties scale at six specified times over a two year period. The measurement of life satisfaction and the Zung Depression Scale were also administered. According to the coping difficulties scale 18% of the sample were experiencing significant problems in coping with their spouse's death two

Table 2

Bereavement and Mortality

Author(s)	Sample/Method	Findings
Young, Benjamin, & Wallis (1963)	4,486 widows	Mortality rate 40% higher than married men of same age
Cox & Ford (1964)	60,000 widowed/ longitudinal study	Highest risk of mortality after first year of bereavement
Parkes (1964b)	44 widows case study	Bereaved widows have greater visits to physicians
Parkes (1970)	22 widows/ interviews	Bereaved show higher levels of emotional disturbance
Parkes (1972a)	68 widows/ questionnaires	Bereaved group more hospital admissions for physical and emotional problems
Maddison & Viola (1968)	132 widows interviews	Bereaved group higher levels of health deterioration
Helsing & Szklo (1981)	20,832/ prospective study	Higher risk of mortality for males and young widowed
Clayton (1974)	100 widows/ questionnaire	Bereaved group same level of mortality as controls
Zisook (1986)	70 widows/ interview	Bereaved spouses most distressed at one month with gradual reductions over four years

years later. No control groups were used in this study, thus limiting the ability to generalize the findings. An additional finding was that those with low or moderate levels of self esteem are likely to experience long term difficulty in the resolution of the death.

Similarly, Gallagher et al. (1983) also examined the effects of bereavement on mental health by administering the Beck Depression Inventory (Beck et al., 1961) and the Texas Inventory of Grief (Faschingbauer, 1981). The two measures were given to 199 (95 male, 104 female) subjects eight weeks after the death of their spouse. In contrast to the efforts of Dimond, Lund and Caserta (1987) a control group of non-bereaved subjects was selected. The bereaved group reported higher levels of psychological distress compared to the control group. The study did not report on the number of recently bereaved that were diagnosed as clinically depressed.

Faberow (1987) also examined the effect of bereavement on mental health. Unlike other studies that fail to take into consideration the cause of death on the bereavement process, the respondents were all survivors of suicide. One hundred and eight survivors of suicide were selected and compared to persons who were survivors of natural death as well as a non-bereaved group.

Instruments used in this study included the Texas Inventory of Grief, Beck Depression Scale and a Brief Symptom Inventory (Derogatis & Spencer, 1982). Both bereaved groups

(suicide & natural death) reported higher levels of distress than nonbereaved controls. No significant difference was found in the level of distress between the two bereaved groups.

Faberow's study is consistent with an earlier study by Sanders (1980) who examined the level of distress between younger and older widows. In her study of 45 widows, younger widows show higher levels of intensity of grief than older widows.

In a recent study, Zisook and Shuchter (1986) evaluated the outcome of 70 subjects selected by reviewing vital statistics. The subjects completed questionnaires at 10 specified intervals over a four year period. Subjects were given the Holmes Rahe Life Events Scale, Zung Depression Scale, and the U Symptoms Checklist. The findings revealed that affective and symptomatic distress was particularly evident at one month after the death event. Anger and guilt were also common symptoms as well as depression. This is consistent with other studies linking unresolved grief to depression. (Clayton, Halikas, & Maurice, 1972; Lloyd, 1980; Zisook & DeVaul, 1983).

This study also indicated that four years after the death of a spouse, 20% of all subjects still rated their adjustment to the death of a spouse as fair or poor, giving support to the concept that bereavement is an ongoing process which one never fully resolves. It is significant to note that after

the four year follow-up period only 39% of the respondents were still participating in the study.

Zisook, Shuchter and Schuckit (1985) conducted a study evaluating all new admissions over a four month period at the University of California Outpatient Mental Health Clinic. Each subject was administered a 53 item questionnaire which assessed the number of deaths of first degree relatives. Of the 220 subjects completing the questionnaires, 127 reported no death events, fifty-five had experienced at least one death event, but reported the event had been resolved and 38 subjects reported at least one death event which was unresolved. Statistical comparisons were made between the three groups and a statistically significant difference ($<.05$) was found in the "unresolved" grief group in their self reported perceptions of depression and physical symptoms.

Table 3 on the following page provides a summary of the studies reviewed on grief and mental health.

Bereavement and Self Esteem

Numerous studies have demonstrated that positive esteem can serve as a protective factor in reducing the life strains on stressful situations (Pearlin et. al. 1981). The presence of a positive self concept would suggest a resolution of the bereavement process without major complications. Only two studies were located that specifically examined the relationship between bereavement and self esteem (Johnson, Lund, & Dimond, 1986; Lund, Dimond, & Caserta, 1985). Both

Table 3

Bereavement and Mental Health

Author(s)	Sample/Method	Findings
Gallagher, Breckenridge, Thompson & Peterson (1983)	199 bereaved/ TIG and BDI	Bereaved group higher levels of mental distress
Dimond, Lund, & Caserta (1987)	192 bereaved/ Zung Depression Scale	Bereaved (20%) still experience difficulty after one year
Faberow, Gallagher, Gilewski & Thompson (1987)	99 bereaved/ TIG & BDI	Bereaved higher levels of distress
Sanders (1980)	45 bereaved/ GEI & MMPI	Bereaved higher levels of distress
Zisook & Shuchter (1986)	70 subjects/ questionnaires	Unresolved grief linked to depression
Zisook, Shuchter, & Schuckit (1985)	220 subjects/ questionnaires	Higher perception of depression of subjects with unresolved grief

studies focus on the bereaved elderly.

Lund, Dimond and Caserta (1985) sampled recently bereaved individuals identified in the obituaries of a local newspaper. The study consisted of 192 bereaved participants. Of the total number, 138 (72%) completed the last data collection two years after the death of their spouse. The instrument consisted of bereavement related feelings and behaviors, life satisfaction, depression, social supports, religious activity and various self-report measures concerning self-esteem, stress and coping ability. Respondents were matched with a nonbereaved sample of 104 persons with similar age and socioeconomic class. Both groups had nearly identical self esteem scores which remained stable throughout the two years of bereavement. Those subjects who had difficulty coping had significantly lower self esteem than other bereaved subjects.

Johnson, Lund and Dimond (1986) examined the relationships between coping ability, self-esteemn and the perceived stress of late middle age and elderly who have experienced the death of a spouse. The sample consisted of 192 recently bereaved persons between the ages of 50-93. Questionnaires and interviews were administered at six and twelve months post bereavement. The findings of this study indicate that those subjects that initially found the death of their spouse to be stressful had the same perception one year after the death event. The authors also found that those subjects who initially had high levels of self esteem

maintained those same levels throughout the first year of bereavement. The same was true for the subjects' coping ability in that those reported to be effective copers before the death, also reported to be coping effectively with the death after one year. The results of this study would suggest that positive self-esteem, previous coping ability, and low stress levels prior to the death of a spouse can be characteristics of a positive bereavement outcome.

Table 4 provides a summary of the studies on grief and self esteem.

Clinical Intervention With the Bereaved

Clinicians who have worked with bereaved clients have focused upon either the intrapsychic mechanism or the various interpersonal or sociocultural factors that influence the grief response. These factors include: family backgrounds, belief systems, values and financial status (Vachon et al., 1982). Parkes and Weiss (1983) indicate that in a clinical context, patients that have higher levels of psychopathology have more difficulty in coming to terms with the death of a significant other. Clients who have low self esteem also have a more difficult time coping with the loss in that the negative self image appears to be accentuated during the bereavement process. If during a time of crisis the feelings of inadequacy about self become the preoccupation then the preoccupation takes away from the time necessary to focus on the loss which is essential to a successful grief resolution.

Table 4

Bereavement and Self Esteem

Author(s)	Sample/Method	Findings
Johnson, Lund, & Dimond (1986)	192 bereaved/ questionnaire and interview	High level of self esteem found in effective copers
Lund, Dimond, Caserta (1985)	138 bereaved/ coping difficulties scale	Poor coping group lower self esteem

Over the past decade, there has been an increasing amount of literature and interest in dying and the bereavement process. As previously mentioned, studies have consistently found bereavement to be a significant process associated with increases in mortality (Engle, 1971; Kraus & Lilienfeld, 1959; Parkes, Benjamin & Fitzgerald, 1969; Rees & Lutkins, 1967). Various studies have examined the level of morbidity among the bereaved (Lindemann, 1944; Parkes, 1972; Schmale, 1965). Studies have also linked the process of pathological bereavement to depression. (Clayton, Halikas, & Maurice, 1972; Lloyd, 1980; Zisook, DeVaul, & Faschingbauer, 1979).

The literature available about clinical interventions with the bereaved focuses on pathological grief reactions rather than on the normal response to grief. Clinical intervention should not be employed unless there is reason to believe there will be complications with the grieving process (Zisook, DeVaul, & Faschingbauer, 1979). Limited studies have been conducted to evaluate specific interventions with specific kinds of loss.

The literature on clinical interventions with the bereaved suggests a dichotomous approach. Interventive efforts appear to be directed at the individual response to any given loss or designed to have the family system as the central focus of discussion and intervention.

Three studies were reviewed that examined the effect of a specified clinical intervention on the outcome of the

resolution of grief (Gauthier & Pye, 1979; Lieberman, 1978; Mawson, Marks, Ram, & Sterns, 1981).

Gauthier and Pye (1979) conducted a case study to determine the effectiveness of treatment consisting of graduated self exposure to reduce the intensity of severe and prolonged grief reaction to the death of a son, in a 50 year old man. The subject was asked to perform a Behavioral Avoidance test consisting of 20 items arranged in increasing order of difficulty. The subject was, in addition, asked to rate the amount of subjective distress that would be caused by performing each item on the BAT scale. The treatment consisted of a graduated self-exposure to the stimuli producing grief. The client was instructed to move up the hierarchy until he experienced pain and then to employ coping self-statements.

A B-A-B single subject design was utilized and no control groups were used. The subject was asked to perform a number of activities related to his son's death. A steady and stable rate of avoidance behavior and subjective distress were observed upon the completion of the treatment. Although improvement was noted, there are no generalizations that can be made due to the size of the sample.

Mawson, Marks, Ramm and Stern (1981) conducted a study to determine the effect of a specified treatment using a sample of twelve patients. Each patient was randomly assigned to either the guided mourning or a controlled treatment group.

Guided mourning consisted of exposure to avoided or painful memories, ideas or situations related to the loss of the deceased. Measurement of concern consisted of five specific areas including avoidance behavior toward the deceased, physical symptoms of grief, hostility, anger and guilt, attitude to self and the deceased. Depression was measured by the Wakefield questionnaire. Anxiety, fear and compulsions were measured by an anxiety scale, fear questionnaire and compulsive activity checklist. The control group was encouraged to avoid thinking about the deceased and to give as little attention as possible to the painful thoughts that may spontaneously emerge.

The findings of the study indicated no change between the control and experimental groups during the first two weeks of treatment. Using analysis of covariance, improvement was noted on five of the ten measures between the groups beginning at week four. Improvements were reported in the experimental group on the Wakefield Depression Scale, level of hostility, global phobia, bereavement avoidance and difficulty thinking about the deceased. The authors concluded that the resolution of bereavement can be facilitated through the guided mourning treatment.

The last study reviewed (Lieberman, 1978) consisted of 19 patients who had been diagnosed as having a morbid grief reaction as measured by at least one indicator on a morbid grief scale. The therapy was carried out in three stages and

was identified as forced mourning procedure. The intent of the intervention was to "force" the client to talk about the death of the significant other. After the last session, subjects again completed the morbid grief questionnaire and assessed for changes. Eighty-four percent indicated the absence or relief of the referral symptoms. Generalizations to other populations are severely limited in light of the absence of a control group. In addition 12 of the 19 subjects had either been previously treated for a variety of mental disorders and were involved in drug therapy. The sample selection further limits the conclusions drawn from this study.

Additional research is needed to explore the effects of specific interventions on the resolution of grief. Few studies exist using control groups for comparison. Shackelton (1985) acknowledges the diversity and extent of the work on grief theory and points to the uncritical acceptance of invalidated hypotheses and serious methodological flaws in most studies conducted to date. Table 5 on the following page provides a summary of the studies on grief and clinical intervention.

Determinants of Bereavement Outcome

The literature provides a fairly consistent description of the common behaviors and symptoms that are characteristic of the grief reaction. Although the symptoms of grief have been empirically validated, less is known about the ability to

Table 5

Clinical Interventions of Grief

Author(s)	Sample/Method	Findings
Gauthier & Pye (1979)	Case study (N=1)	Avoidance behavior decreased with treatment
Mawson, Marks, Ram, & Stern (1981)	12 subjects Guided mourning using control groups	Improvement in experimental group after two weeks
Lieberman (1978)	19 subjects "forced mourning procedure"	Referral symptoms decreased with intervention

predict good or poor outcomes. The process of grief is a very complex phenomenon and the variables that may predict a specific outcome are not always clear. The grieving process is one which is extremely individualized and is determined by a multiplicity of variables. Various studies have been conducted to determine the factors that may predict a positive or negative outcome. These factors can be classified by three broad categories which include: (1) characteristics of the survivor, (2) characteristics of the deceased, and (3) characteristics of the relationship between the survivor and the deceased.

Parkes (1972) and Raphael (1983) have noted that individuals who have emotional difficulties prior to the death of the significant other are at risk for continuing or even worsening of psychiatric symptoms during the bereavement process. The ability to cope with the reorganization of one's life after the death of a spouse is most difficult for people with pre-bereavement psychiatric distress such as depression.

Parkes (1972b) and Parkes & Weiss (1983) identified the following individual factors that predict a pathological response. They include: grief prone personality, insecurity and anxiety, excessive self approach and anger, physical disability, and previous unresolved losses. Similarly, Glick, Weiss and Parkes (1974) reported physical impairments as a predictor of poor outcome of grief resolution. Additional individual characteristics that have been identified as

predictors of poor outcome include: detachment from traditional cultural and religious support systems, dissatisfaction with employment, and low socioeconomic class (Atchley, 1975; Clayton et al. 1973; Maddison & Walker, 1967; Pearlin & Schmidt, 1975).

Several studies have examined bereavement outcomes by looking at characteristics of the deceased. For example, the manner in which a person dies has been identified as a factor which effects bereavement outcome (Gerber, Rusalem, & Hannon, 1975). Sudden, untimely death, and painful and horrifying death can also predict poor outcomes (Lundin, 1979; Nixon & Pearn, 1977; Raphael, 1977). Any death that is considered inappropriate or untimely would increase the likelihood of a negative outcome relevant to the bereavement process.

Widows who survive the death of a mate in which the deceased had been ill for more than six months is at greater risk for psychiatric illness than for widows whose spouses' illness was less than six months (Parkes, 1972a). One possible explanation for this at risk group is that the amount of physical and emotional energy that is needed to provide care for an ill spouse depletes the physical and psychological resources necessary to engage in one's own grief work. By comparison, individuals who experience the sudden or unexpected death of a spouse are more likely to experience difficulty in the bereavement process and may present a pathological response (Parkes, 1972a).

The third broad category of factors that predict bereavement outcome examine the individual relationship to the deceased or family relationship variables with the deceased.

Characteristics of the relationship which result in high risk individuals include: ambivalence of the relationship, death of spouse, death of parent leaving preschool children (Parkes, 1972a; Parkes & Weiss, 1983; Raphael, 1983).

Several predictor variables that have identified poor outcomes include several family life variables. Families provide a wide range of support at the time of death. As families progress through the various stages of growth the amount of support given depends on the particular stage of growth exhibited in the family. The amount of support given at any point in time may facilitate or hinder the grieving process. Widows under the age of 45 appear to be at higher risk in comparison to other widows in that the death of a spouse represents only one of the various roles that has been lost. Other role losses that may be experienced simultaneously include loss of friend, loss of income, loss of status (marital and financial).

If the quality of the relationship to the deceased is characterized by insecurity and minimal attachment there is an increased likelihood that the outcome may be unfavorable (Parkes, 1987). Relationships that are strained or dysfunctional in the family diminsh the amount of support available to the family in a time of crisis (Raphael, 1983).

Families that have relationships that are characterized as strained or severed must find alternative sources of support to sustain the individual who has experienced the death of a significant other (Parkes & Weiss, 1983). In addition, families that have been characterized as having difficulty in expressing emotions are at higher risk for displaying psychiatric symptoms (Beavers, Hampson, & Hulgus, 1985; Parkes, 1972).

In each of the three categories of bereavement outcome the studies consist exclusively of conjugal bereavement. Since most of the literature has focused on this particular loss, caution must be used in generalizing to other populations with different losses. Since widows and to some extent widowers have been the subject of these studies, other familial losses such as adult sibling loss have received very little attention.

Integration of Findings of Theoretical and Clinical Literature

The research that has been conducted to date on grief and bereavement includes many aspects of the phenomenon being studied. A review of the literature indicates that grief studies of widows and widowers have received the most attention while the grief reaction of adult siblings is absent in the literature. Most of the literature reviewed identified the characteristics of both pathological and normal grief. What is less clear in these studies is the identification of specific attributes that either help or hinder the resolution

of the grief response.

In addition, there is a lack of conceptual clarity in the clinical and theoretical literature regarding the dimensions of grief that distinguish between normal and pathological. Concepts such as delayed, inhibited, partial, pathological, anticipatory, uncomplicated and normal do not always share the same definitional usage. There is a need to provide greater clarification among the various concepts used to describe the different dimensions of bereavement.

Among the various research efforts that have been reviewed there are four specific limitations that hinder the generalization of findings. Many of the samples used were nonrandom samples drawn from clinical settings. For example, the samples that Parkes utilized consisted primarily of patients that had been institutionalized for psychiatric problems. One of the problems in the study of grief and bereavement lies in the belief that uncomplicated bereavement does not warrant clinical intervention, therefore most of the studies conducted focus on the pathological response to bereavement rather than on normative uncomplicated response. Additional studies need to be conducted with samples that represent normative reactions to bereavement. This is of particular importance since about 85% of all grief reactions involve no complications and do not warrant any professional intervention.

With the studies reviewed, problems exist relative to the

size and sample selection. Widow and widower reactions to their spouse are an overrepresented cohort in the research studies. Other areas have been totally neglected relative to the bereavement response. One significant omission is the reaction of adult sibling loss through death. Although parallels can be drawn from other family reactions to death, empirical evidence is lacking relative to how this particular loss is experienced by those who as adults experience the death of another adult sibling. This neglected area of study is important in light of the large amount of time that is spent with our siblings in the family of origin. Little information exists to determine how and in what ways the sibling relationship continues to influence behavior beyond the family of origin. What is the course of grief for this specific type of loss?

Empirical studies need to be conducted to determine how the bereavement response of this loss is similar or different to other losses through death. A very limited area of research exists on the familial response to the death of a family member. As previously stated, most of the bereavement studies focus on individual reactions to the death, rather than a familial response. Research is needed that examines how the family of origin and the family of procreation effect the course of grief with adult sibling loss. It is also imperative to develop knowledge to determine what specific characteristics of the sibling relationship may have an impact

on the grief resolution. It was the design of this study to explore these areas of omission that have been noted in the literature. It is important to examine the loss of an adult sibling to determine if and how the reaction will be different from the current knowledge of grief.

Another issue that effects the generalization of findings is with the research designs employed. Many of the designs are cross sectional designs. While some are designed as very time limited longitudinal approaches usually one or two years, sufficient longitudinal efforts to follow specific cohorts over an extended period of time to determine the course of bereavement beyond one or two years are lacking. One exception to this is the work of Zisook and Shuchter (1986) which followed a group of bereaved widows for four years post bereavement. Using cross sectional designs limits the knowledge of long term effects of the bereavement reaction to loss.

One final problem associated with many of the studies to date include the lack of control groups. Studies could benefit by using non-bereaved control groups. Other difficulties in this area include the failure to control or take into consideration the many antecedent variables that can effect the outcome of the grief response. These would include such variables as previous losses, other life crisis, quality of relationship before death, mode of death and timeliness of the death.

Sibling Relationship Theory and Research

While numerous studies have been conducted on conjugal bereavement, no empirical studies were found that examined the grief response of adult siblings who experience the death of an adult sibling. The sibling relationship is the longest family bond spanning six decades or more (Cicirelli, 1982). There is a familial and societal expectation that the tie will remain throughout the lifespan. Social activities such as birthdays, holidays and anniversaries leave an indelible imprint on the sibling relationship. Although siblings share mutual experiences, it is not clear how and in what ways the childhood sibling relationship extends beyond the early year and through the life span. There is a cultural expectation that the sibling relationship will be emotionally close as denoted by phrases such as "He/She is just like a brother/sister".

Research on the sibling relationship has primarily centered on various aspects of childhood sibling interaction such as childhood sibling rivalry or personality based on birth order (Adams, 1972; Kammeyer, 1967). There are few studies which focus on this familial relationship across the life cycle.

In addition to the lack of knowledge about the sibling relationship across the life cycle, knowledge is also lacking that provides an understanding of the quality of the relationships in adult siblings. Research related to siblings

has focused on the relationship in early childhood with particular emphases being given to siblings relative to birth order. Although the importance of adult sibling relationships cannot be denied, researchers have largely ignored this relationship across the life span (Cicirelli, 1980b; Gotting, 1986; Irish, 1965; Schvanevelt & Ihinger, 1979; Streib & Beck, 1980). It has only been within the last decade that researchers have started to investigate this important aspect of familial interaction (Bank & Kahn, 1982; Dunn & Kendrick, 1982; Lamb & Sutton-Smith, 1982). The inattention given to the study of adult sibling relationships may be due to the primacy of the husband-wife dyad for theoretical and practical considerations since the relationship is more central to family processes. Very little empirical or theoretical research has been conducted that provides a theoretical base for the study of adult sibling relationships.

Over 80% of American children grow up in a family that includes siblings (Adams, 1968; Cicirelli; 1980b). Falbo (1984) indicates that 85-90% of adults have a living sibling, with a third of them in the same city and half within a distance of 100 miles. Of particular importance is the frequency of contact that is made between siblings. Frequency of contact between siblings has been the primary criteria for determining the involvement with the relationship. Cicirelli (1980b) found that 41% of adult siblings visit at least one sibling each month. In a similar study by Rosenberg and

Anspach (1973), 68% saw a sibling weekly. Adams (1968) found that as the geographical proximity increases, the frequency of visitation decreases. Frequency of contact has also been shown to decrease with increasing age (Rosenberg & Anspach, 1973). Although frequency of contact is one measure of sibling to sibling involvement, Adam (1977) indicates that siblings have contact with each other out of a sense of obligation and duty rather than for enjoyment. Whether out of a sense of obligation or enjoyment, or for meaningful interaction, siblings have regular contact with one another. For example, Cicirelli (1982) found that only 3% of the siblings had not seen each other in the past two years. Although closeness between siblings occasionally originates in adulthood, empirical evidence suggests that regular contact is influenced by the quality of the relationship that has formed in earlier years.

Reiss (1962) indicates that siblings stay in touch due to common interests and an admiration for personality characteristics. Other variables which effect the frequency of contact with siblings include age, geographical proximity, and the sex of the sibling pair. With only one exception in the literature, (Scott, 1983) the sister to sister relationship appears to be the closest, particularly among the elderly (Farber & Smith, 1985; Troll, 1971).

Although sibling contact occurs quite frequently across the life span, the empirical data is inconclusive as to why

siblings have such regular contact. Little is known concerning the reasons that siblings maintain contact over the years. Adam (1977) describes the relationship as one which is high in perseverance but low in intensity. In his study, less than half of the respondents thought that he/she could discuss intimate topics with their sibling. Lee, Mancini and Maxwell (1990) propose that the nature of adult sibling contact may be discretionary (voluntary) or obligatory. Voluntary sibling contact may represent a different kind of relationship than those that are obligatory. Additional research is warranted to determine the frequency and quality of adult sibling relationships. As siblings age the bonds are reactivated as the need for care and support of their elderly parents increase (Ross & Milgram, 1982).

The quality of the relationship will also be affected by the degree of access each sibling has to the other. Access is defined as the opportunity to interact with each other. Bank and Kahn (1982) indicate that closeness of age, proximity, and same sex provide maximum access between siblings.

In an exploratory study of adult sibling relationships, Ross and Milgram (1982) examined the degree of closeness among adult siblings, sibling rivalry, and critical incidences and their consequences to the relationship. This exploratory study selected volunteers (N=75) who were recruited from a university and senior citizen center. Respondents ranged from 22-93 years of age. Subjects were interviewed in 13 small

group discussions. The findings indicate that one of the key variables in maintaining closeness in an adult sibling relationship is the geographical proximity to each other. In addition those siblings that reported a close relationship with another sibling also reported a sense of closeness as a family unit.

The research suggests that sibling interaction is more frequent for those who are not married and for married adults who have children (Shanas et al., 1968; Townsend, 1963; Troy, Miller & Atchly, 1979).

Mostche, Brady and Noberini (1983) examined the relationship between the closest sibling across the life span. The retrospective study asked respondents to evaluate the closest sibling relationship during seven life stages. The stages identified for evaluation included (1) elementary school (2) high school, (3) just before leaving home, (4) at the beginning of the respondents marriage, (5) when the subjects' children left home, and (7) death of a parent. Respondents were selected by identifying acquaintances of college students enrolled at two eastern universities. Subjects were interviewed concerning each of the time periods as identified above. Subjects reported that the closest sibling relationship, during the adult years provided instrumental and expressive support, particularly support that may not be available from other relationships. The sibling relationship was identified as particularly supportive during

crisis events such as death of the parent. The frequency of sibling contact over the life span points to the significance of the adult sibling relationship. In spite of the importance of the sibling relationship in adulthood and over the life span, the family relationships of adult siblings have been given little attention (Lee, Mancini & Maxwell, 1990).

The Impact and Significance of Adult Sibling Loss

The family of origin plays a critical role in the socialization process of developing and maintaining familial relationships. The sibling relationship is a unique familial relationship that can last for several decades, longer than any other familial relationship. As previously mentioned, 80% of all adults have at least one adult sibling.

Research that has been conducted relating to sibling loss has focused primarily on the death of childhood sibling loss (Blinder, 1972; Cain, Fast, & Erickson, 1964; Hogan, 1988; Pollock, 1978; Rabkin & Krell, 1975; Rosen & Cohen, 1981). The focus of empirical studies in this area have examined either (1) the grieving parents' reaction and interaction with the surviving children (Cain, Fast & Erickson, 1964; Rabkin & Krell 1979), or (2) the effects of childhood sibling loss on later adult psychopathology (Bank & Kahn, 1982; Cicirelli, 1982; Hilgard, 1969; Pollock, 1962, 1978; Ross & Millgram, 1982).

Although there has been empirical evidence to suggest that siblings rely on each other for mutual support, a

significant gap exists in the literature that examines how siblings are effected when that support is terminated by the death of the adult sibling. The coping strategies of the surviving sibling may be influenced by certain characteristics of both the family of origin and the family of procreation. In addition, the resolution of grief may be influenced by the quality and additional characteristics of the adult sibling relationship. Because familial loss is a universal phenomenon, it is important to examine this special aspect of family life to determine what factors help or hinder the grieving process. By developing knowledge about this unique type of loss, information can be obtained that assists survivors in coping with this type of familial loss. A better understanding of adult sibling loss can also be useful for helping professionals in providing support for this type of familial loss.

Few studies have been conducted on siblings in crisis situations and a dearth of information exists relative to the adult sibling relationship. Upon the death of an adult sibling, no empirical data exists that examines the grieving process relative to this unique type of familial loss. For example, how does the survivor's family of procreation assist or hinder in the resolution of grief concerning the deceased sibling? This area of study has only recently emerged as an arena of importance in family relationships.

Summary of Literature on Adult Sibling Relationships

The clinical and empirical literature about adult sibling relationships is very limited. Most studies focus on the sibling relationship in the childhood years, with specific concern focusing on personality traits relative to the sibling position in the family. Additional studies have identified sibling response to sickness and death in the family of orientation. The relationship between adult siblings over the life span is a neglected area of research. The limited studies that have been conducted suggest that the sibling relationship is one which is characterized by life long contact even though the reasons for the contact or the quality of the relationship is not fully known. Current studies have been cross sectional or retrospective studies with an absence of longitudinal studies. Studies that have examined the sibling relationship over the life span have been retrospective and have generally concerned themselves with identifying such variables as frequency of contact, age and sex variables, as well as geographic proximity to each other.

The death of an adult sibling and the process of grief resolution have been omitted in the literature. No empirical data exists that examines the outcome of grief resolution in the event of adult sibling loss.

Based on the limited knowledge available, the literature suggests that sibling relationships extend across the life span and are regarded as close, bonded relationships that

offer support in times of crises. The empirical literature would suggest that the sex of the sibling pair effects the quality of the relationship in that siblings of the same sex appear to be the closest. Additional research needs to be conducted that explores adult sibling loss and the effects on the surviving sibling and his/her family functioning. It was the purpose of this study to explore the process of grief among subjects who have experienced the death of an adult sibling. Table 6 on the following page provides a summary of the empirical research of adult sibling loss.

The Family System and Loss through Death

The emergence of family systems has its roots in the general systems model from the physical, biological and the social sciences. General systems theory is a unifying approach in that people (family members) are viewed in the context of a relationship to other beings or systems. General systems theory as described by Bertalanffy (1968) and Buckley (1968) identify familial problems separate from individual pathology. The systems model has been applied to the family by Haley, (1962, 1963, 1964), Hill, (1971), Jackson, (1965), Rosen, (1990), Speer, (1970), and Wertheim (1973). The rationale for examining the problems from a systems perspective draws from the central concepts of wholeness and relationship. Social systems contain component parts, each related to one another in a causal network (Buckley, 1968).

From a systems perspective, the sum is greater than any

Table 6

Adult Sibling Relationships

Author(s)	Sample/Method	Findings
Lee, Mancini, & Maxwell (1990)	313 adults/ living stability mail survey	Proximity a predictor of emotional closeness; Same sex siblings have more contact
Ross & Milgram (1982)	75 volunteers, age 22-93 small group discussion qualitative study	Siblings provide mutual aid and support during crisis events
Mosatche, Brady, & Noberini (1983)	47 subjects, interviews re: sibling relationship	Sibling relationship quality of closest continues to be important over life span
Peterson (1990)	121 subjects interviews	Siblings provide support, mentoring, advisory/nurturing roles to one another
Adams (1968)	799 subjects interviews	60% of siblings had living sibling within 100 miles Sibling visits decrease with age
Rosenberg & Anspach (1973)	1,360 subjects interviews	Frequency of visits decrease with distance
Cicirelli (1980a)	100 college women	High degree of closeness with sibling

(table continues)

Table 6 (continued)

Adult Sibling Relationships

Author(s)	Sample/Method	Findings
Cumming & Schneider (1961)		Closeness increases with age Same sex sibs closer than opposite sex sibs
Ross, Dalton & Millgram (1980)	Semi-structured interviews	Emotional closeness increases with age

of its parts. Therefore, the components are linked inexorably to one another. The behavior of one particular member cannot be examined in isolation but rather in the context of understanding how the rest of the system is effected by the death. Consequently, any occurrence of death in the family has an effect on each member in the family unit. The death usually changes the family patterns of communication and prescribes roles.

As previously mentioned, the effect of the death of a family member will be shaped by the specific life stage development of the family. From a systems perspective, behavior must be analyzed and understood in its relation to other family members. Because interaction and relationships are two organizing themes in the systems perspective the relationships must be examined in the social cultural context in which they occur. Thus death must be viewed not from an individualistic perspective but in view of the effect the death event has on familial relationships.

Since the systems approach implies that families are a component or a subsystem to a larger network of systems, families must be viewed in the broader societal and cultural contexts (Becvar & Becvar, 1982). "As individuals interact with and interface with each other, families interact and interface with other family systems and other systems" (Becvar & Becvar, 1982, p.6).

From a systems perspective, the causality of human

behavior moves from a linear explanation to a reciprocal understanding of a family's behavior. To understand the systems perspective, it is useful to identify several concepts that are critical to the systems perspective of family analysis. Boundaries, communication and rules, roles and hierarchy, homeostasis and flexibility are properties of family life and health that have been identified as pivotal in understanding family systems (Green, 1986; Green & Kolevzon, 1984; Jackson, 1957).

Boundaries

A central characteristic of all systems is the presence of boundaries. Boundaries are the "redundant patterns of behavior which characterize the relationships within that system and by those values which are sufficiently distinct as to give a family its particular identity that serves to delineate one particular system from another" (Becvar, 1982, p. 10). Boundaries are designed to provide a definition of the family that can be distinguished from other families and their systems. One particular function is that boundaries provide a mechanism by which information flows into the system. Family systems that allow too much information from outside the system are indistinguishable from other systems. Family systems that are very rigid would not allow sufficient information from outside the system and therefore would tend to become isolated. Healthy family functioning occurs when boundaries exist but yet are permeable to allow the family

system to be differentiated from other systems. The boundaries of any system determine the accessibility of information available to the system. They become the medium by which information is transferred between systems enabling the family to interact with other systems.

Communication and Information Processing

Within the framework of systems, the communication network allows the system to receive, process and interpret information available to the system. Communication is a critical concept for understanding family systems in that the flow of information allows the system to interact with other systems. Becvar (1982) identifies the importance of the communication process by describing the components of communication, the nonverbal (such as voice tone, body posture, etc.) and the context in which the verbal and nonverbal occur. These three components function together allowing the family to process information both internal and external to the system. When a family system experiences the death of one of its members, the communication process is critical to the resolution of the death. For example, families which are closed systems relative to specific subjects or taboo topics would appear to have more difficulty in resolving the grief of the family member because difficult topics violate the rules of communication. Conversely, it is reasonable to expect family systems that have open effective channels of communication to resolve the death of the family

member due to the social support system that exists within the family system.

Healthy families are believed to possess communication patterns and processes that allow for the expression of thoughts and feelings without negative retribution (Green, 1986). The rules that are prescribed contain a certain level of flexibility and are appropriate to the given situation. This dimension is of critical importance in understanding a family's response to death. Society often embraces the shroud of secrecy that exists in discussing death. The family's willingness to openly communicate about the death of one of its members may be a difficult task. The degree to which the grief work may be completed is in part determined by the family's ability to permit members to express feelings about the deceased.

Homeostasis

Systems by their nature strive to maintain a balance. The balance is necessary for systems to sustain and strive toward a sense of stability. In healthy family systems, change and stability are both essential to maintain an optimal level of health in the family (Green, 1986). Healthy family systems maintain a balance between the dimensions of change and stability.

Families that experience loss through death are faced with an imbalance in the family system. Boundaries shift and roles are reallocated in an attempt to return the family to a

state of homeostasis. The degree to which the family successfully copes with the death of a family member is in part linked to the level of balance that existed prior to the death. Families that possess the ability to move toward a homeostatic state are families that may have less difficulty in resolving the death of a family member.

Flexibility

The concept of flexibility involves the family's ability to adapt to changes either internal or external to the system. The changes may be normative changes across the life cycle or changes that are unexpected or nonnormative changes, such as the death of a family member. Healthy families are believed to be able to adapt to these changes without creating chaos within the family. While the presence of death in a family produces change within the family unit it would be expected that family members would be able to adapt to the impending changes in a predictable and orderly method.

Roles and Hierarchy

Another sign of family health is a clear understanding of the roles that are delineated among family members (Green, 1986; Green & Kolevzon, 1984). In families that experience the death of a family member, the role of each member experiences a drastic change as the family attempts to re-establish a degree of homeostasis. The outcome of the familial bereavement will be effected by the specific roles that the deceased filled prior to the death. If, for example

the deceased was the primary wage earner in the family, the economic adjustment would most likely be more difficult than the death of a child. Although no death in a family is easy, the degree to which the family will return to a state of homeostasis will also depend on the number and perceived importance of the roles played by the deceased. Upon the death, the family begins to reallocate the necessary roles that are critical for its survival.

Bereavement and Family Systems: Conceptual Framework for the Present Study

The most frequently studied death event within the family system has been the death of a spouse. Empirical studies have provided knowledge concerning the course of grief with this particular familial loss. Death of a child has also been a frequent subject of inquiry, focusing on the effects of loss relative to family structure and sibling development. However, the death of an adult sibling and the impact of the loss on the surviving siblings relative to the grief process has not been determined.

Early attempts to understand death as a form of loss within family units focused on the event of death as one of many possible stressors that any given family may encounter. McCubbin, Cauble and Peterson (1983) identify a stressor as a "life event or transition impacting upon the family unit which produces, or has the potential of producing, change in the family social system" (p. 8). Families experience a wide

range of situations which necessitate a restructuring of roles, boundaries and reinstatement of homeostasis. Death is perceived as a stressor which has the capability of pulling a family unit together to a higher level of functioning, or possibly tearing the family apart (McCubbin & Boss, 1980). The effect of familial loss may be evidenced by the family changing its boundaries, goals, roles, values, and patterns of interaction.

Stressors which families encounter can consist of the normative developmental changes. These normative changes have been enumerated in the literature and normal in the sense that they are predictable and expected as a part of the developmental growth of families. The particular stressors that have been identified as normative development in the family life cycle include: (1) establishment of marriage (2) birth of first child, (3) entrance of the first child in school, (4) families with adolescents (5) families in the launching stage, (6) families without children (empty nest), and (7) retirement (Hill, 1949; McCubbin, Cauble, & Patterson, 1982; McCubbin & Figley, 1983). Each of the family development stages include tasks that families achieve as they move from stage to stage. The tasks that are accomplished are based on the allocation of specified roles within the family system (Vess, Moreland & Schwebel, 1989). When the death of a family member occurs, family members must reallocate the roles that were previously carried out by the deceased family

member. In the reallocation of roles the specific developmental stage of the family is critical to the outcome of the grief response.

The second kind of stress that families encounter is nonnormative stressors. Nonnormative stressors are those situations that families encounter in which little if any anticipation occurs prior to the presence of the stressor. Since they (stressors) are unforeseen, the family is often placed in a state of instability in which they are unable to rehearse potential coping strategies to the unexpected stressor. Common nonnormative stressors may include accidental loss or injury, sudden unemployment, hospitalization or death.

Death in the family may be viewed as either a normative or nonnormative stressor. If the death is considered to be an untimely death then the stressor would most likely be a nonnormative event. Familial situations which would constitute nonnormative stressors would include: a terminal disease, a sudden loss of limb or life, death by suicide and death of a child. Any situation that presents itself to the family in a manner which the family must respond with little or no preparation would be regarded as nonnormative familial stress.

Early attempts to identify variables which allow families to cope with stressors that yield a positive resolution have included the ABCX model of family crisis (Hill, 1949). In

this well known model, the A factor represents the stressor that may be internal or external to the family. The B factor represents the resources that are available to the family to adapt, or reorganize to keep the system from becoming disruptive. Various resources may include the family's sense of commitment and cohesiveness to the family unit, shared goals, and meeting each others needs within the family context. The C factor in the ABCX model represents the family's definition of the stressor. Families may see the stressor as an opportunity for growth and change while other families may perceive the stressor to be uncontrollable and ultimately lead to the families demise. The final component of the ABCX model is the crisis which produces the stress that emerges in the family system. McCubbin and Patterson (1983) define family stress as a state which rises from an actual or perceived demand capability creating an imbalance in the family's functioning and is characterized by the need for adjustment or adaptive behavior. The model conceptualizes the stressor event interacting with the family's resources for crisis resolution which in turn produces the crisis situation.

Bereavement within the context of familial loss has historically focused on individual reactions to the loss rather than its effects on the relationship to members within the family constellation (Gelcer, 1986). Bowen (1976) was one of the first to address the issue of familial response to death of a family member. Bowen suggested that the process of

dealing with the death of a family member is affected by the extent to which the family is either a closed or open system. In examining a family which has a member with a terminal condition, Bowen indicates that the family has to work within the framework of three specific systems, all of which are relatively closed systems. The degree to which a system is closed significantly effects the amount of information available to the system. Relatively open systems allow communication without fear of reproach or censure (Rosen, 1990). In the event of a terminal illness, secrecy often pervades with the family members unwilling to discuss the terminal condition for fear of upsetting family members. The medical system also establishes fixed boundaries in their refusal to inform the patient with a terminal condition.

Bowen views death of a family member as creating an emotional shock wave. The emotional shock wave is a result of the disequilibrium created by the death of the family member. As previously indicated, families as systems strive to maintain a balance or state of homeostasis. The death of a family member disrupts and upsets the balance that existed prior to the death. The extent of the disruption is in part determined by the specific roles carried out by the deceased as well as the significance of the roles relative to family functioning. In addition, Bowen suggests that the familial reaction to the death of a family member is related to the degree of the differentiation of self within the family

system. The differentiation of self is one of the critical concepts to the Bowen Theory. The concept describes people according to their degree of fusion or differentiation (Bowen 1976). Bowen believes that the concept is universal in describing people and places all behavior on a continuum from low to high. At the low end of this continuum are those whose emotions and intellect are so fused that they respond only from an emotional level. Bowen describes these individuals as more emotional and less flexible, less adaptable and emotionally dependent on other people. At the other end of the scale are those that are more differentiated, who are able to separate emotional and intellectual functioning. Those who have higher levels of differentiation are more flexible, more adaptable and cope better with stressful situations.

Another important dimension of the differentiation of self includes the concepts of solid self and pseudo-self. The solid self is made up of clearly defined convictions, beliefs and principles that serve to guide behavior. The pseudo-self on the other hand possesses a sense of fluidity, which can change based on the particular circumstances. The pseudo-self is an unstable entity that can respond to a variety of social pressures and therefore is negotiable in the family relationship system. People who are highly differentiated react from an emotional rather than an intellectual position.

Although no empirical evidence exists, the theoretical literature would suggest that those who are at the upper level

of the "differentiation of self scale" would more easily resolve the death of an adult sibling in that he/she would be able to process the loss at both the intellectual and emotional levels. Conversely those individuals who were low on "differentiation of self" would have more difficulty with the resolution of bereavement. As previously stated, the familial response will also depend on the significance of the relationship to the deceased to the family system. In some situations the death will elicit little or minimal grief reaction. If the deceased has abandoned all role responsibility such as may be found in an alcoholic family system, the family would have little need to reallocate role responsibilities therefore minimizing the grief response.

Conceptual Models of Family Systems

Over the last two decades there has been an increasing interest and need to develop family models for assessment and treatment. Two models which currently hold prominence in the family therapy literature are the Beavers Systems Model and the Circumplex Model of Family Functioning. Both models are cross-sectional, macro-assessment tools for families analogous to individual assessment approaches that define broad categories of symptoms of behavior (Beavers & Voeller, 1983).

The Circumplex Model identifies three dimensions of family behavior that emerged from a clustering of fifty concepts used to describe marital and family dynamics. These have been identified as family cohesion, adaptability and

communication. Olson, Russel and Sprenkle (1983) define family cohesion as "the emotional bonding that family members have toward each other" (p. 70). The concept of emotional bonding, boundaries, coalitions, time, space, friends, and decision making are subsumed under the broader concept of emotional bonding. The model includes four specific levels of cohesion ranging from disengaged, to separated, to connected and enmeshed.

The other dimension of family functioning is family adaptability which Olson (1983) defines as "the ability of a marital or family system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress" (p. 70). The concepts of family power, negotiation styles, role relationships and relationship rules are subsumed under the dimension of adaptability. The concept of adaptability focuses on the family's ability to cope with normative (children, adolescent, retirement, etc.) and nonnormative change of death of a family member. The four levels of adaptability include rigid, structured, flexible, and chaotic.

The Circumplex Model proposes a curvilinear relationship between the dimensions of cohesion and adaptability related to effective family functioning. Dysfunctional family typologies lie at either end of the continuum whereas the "balanced" mid-continuum families display optimal family functioning. With the four levels of cohesion and four levels of adaptability,

sixteen family typologies of family functioning have been defined.

The Beavers System Model has developed over several years in collaboration with Jerry Lewis at the Timberlawn Psychiatric Center in Dallas, Texas. The model is a result of clinical work with families, applying a general systems theory to the study of the quality of family systems (Hulgus, et. al., 1986).

The Beavers System Model as with the Circumplex Model places a high degree of importance on the interface of the family system within the family and in relation to other systems. The Beavers System conceptualizes family functioning on a continuum with severely dysfunctional families at one end of the continuum and optimal functioning families at the other end of the continuum. Families that are identified as chaotic, disorganized, and possess diffused family boundaries on the dimensions of cohesion and adaptability on the Circumplex Model would be identified as severely dysfunctional in the Beaver's System Model. The optimally functioning family would be a family that supports the development of competent personalities. Specifically, the optimally functioning family would have high levels of autonomy, flexibility, and possess high levels of organization. In addition, optimally functioning families would consist of members who display high levels of intimacy and closeness while being able to maintain a level of "separateness"

(Beavers, & Voeller, 1983).

More recently, the model has been revised to include the family dimensions of family conflict, communication, family cohesion, family expressiveness, and family leadership. The more recent model reflects an effort to empirically validate the dimensions of family functioning and provides greater utility in assessing whole family functioning.

Beavers also uses the concepts of centrifugal and centripetal to describe the levels of interaction within and between various systems. Families that are centrifugal derive a large measure of gratification outside of the family system. By contrast, families characterized by a centripetal quality of interaction would seek to meet many of their needs from within the family and lack a sense of trust in those systems outside the family.

Parameters for the Present Study

Gaps in the Literature

The present literature review has identified several gaps relative to the empirical investigation of adult sibling loss within the context of family systems theory. Although some studies were found that examined the adult sibling relationship, most were exploratory or descriptive in nature. Several empirical investigations have examined the effects of childhood sibling loss on personality development. However, empirical evidence is lacking that examines the effects of sibling loss in the adult stages of human development. No

empirical studies were found that examined the relationship between siblings and the quality of the relationship as it relates to the death of an adult sibling. Although the theoretical literature would generally support the belief that siblings provide support to one another during crisis, no empirical evidence exists to determine how and in what ways the support is given and how the support effects the grieving process. In addition, no empirical data exists to determine if and how the sibling's family of origin and family of procreation effect the resolution of the grief of the adult sibling.

A second gap that exists in the literature is a noticeable lack of studies that examine the grief response within the context of a family systems model. There is an abundance of literature that describes the process of grief, however, the focus in describing the process is generally on individual response to the death rather than conceptualizing the death as a familial response. The analysis of bereavement then has been almost exclusively with clinical subjects drawn from psychiatric or clinical settings. This limits the knowledge base of our understanding of the phenomenon of grief in that 85% of the population who experience a normative response to bereavement making it difficult to determine the difference between normative and pathological responses. Empirical studies need to be conducted to include more nonclinical respondents. As previously mentioned, sample

biases and sample size further create confusion in drawing generalizations to other populations.

The present study is exploratory in nature and will examine the grief response of adults who have experienced the death of a brother or sister within the last five years. The study compared selected family and individual variables on the outcome of grief within the context of family systems theory.

Study Hypotheses

Given the above parameters, the hypotheses for this study are:

Family of Origin

Hypothesis I:

Subjects who report higher levels of communication in their family of origin will report lower levels of grief than those who report lower levels of communication in their family of origin.

Hypothesis II:

Subjects who report more extreme levels of cohesion in their family of origin will report higher levels of grief of an adult sibling than subjects who report balanced levels of cohesion in their family of origin.

Hypothesis III:

Subjects who report more extreme levels of adaptability in their family of origin will report higher levels of grief than subjects reporting balanced levels of adaptability in their family of origin.

Family of Procreation

Hypothesis IV:

Subjects who report higher levels of communication in the family of procreation will report lower levels of grief than those who report lower levels of communication in their family of procreation.

Hypothesis V:

Subjects who report more extreme levels of cohesion in the

family of procreation will report higher levels of grief of an adult sibling than subjects who report balanced levels of cohesion in their family of procreation.

Hypothesis VI:

Subjects who report more extreme levels of adaptability in the family of procreation will report higher levels of grief of an adult sibling than subjects who report balanced levels of adaptability in the family of procreation.

Individual Characteristics

Hypothesis VII:

Subjects who report lower levels of individuation will report higher levels of grief of an adult sibling than subjects who report high levels of individuation.

Hypothesis VIII:

Subjects who report the cause of the sibling's death as an accident will be more likely to report higher levels of grief than those subjects who report the sibling's death due to natural causes.

Hypothesis IX:

Subjects who report higher levels of self esteem are more likely to report lower levels of grief than subjects who report lower levels of self esteem.

Hypothesis X:

Subjects who report higher levels of church attendance will have lower levels of grief than subjects who report lower levels of church attendance.

Characteristics of Sibling Relationships

Hypothesis XI:

Subjects who report higher levels of overall communication with the deceased sibling will report lower levels of grief than subjects who report lower levels of overall communication with the deceased sibling.

Hypothesis XII:

Subjects who report more frequent contact with the deceased sibling will report lower levels of grief than subjects who report less frequent contact with the deceased sibling.

Hypothesis XIII:

Subjects who live in close proximity to the deceased sibling will report lower levels of grief than those subjects with greater geographical distance.

Hypothesis XIV:

Subjects who are closer in age to the deceased sibling will report higher levels of grief than those who are significantly older or younger.

Hypothesis XV:

Subjects who perceived their relationship with the deceased as emotionally close will report lower levels of grief than those subjects who perceived the relationship as emotionally distant.

Hypothesis XVI:

Subjects who report the deceased sibling of the same gender will have lower levels of grief than subjects of the opposite

gender.

CHAPTER III

Methodology

Study Design

The present study uses a cross-sectional design to investigate the relationship between family characteristics of adult siblings, and the resolution of grief following the loss of an adult sibling. The study provides a description of the characteristics of adult sibling relationships and explores these familial relationships as they relate to the resolution of grief of an adult sibling.

Sampling

Characteristics of Subjects

Subjects for this study consist of married adults 18 years and over who have experienced the death of an adult sibling who was 18 years or over at the time of death. In addition, the death of the adult sibling must have occurred within the past five years. The five year period was selected to provide a sizable number of respondents who had experienced the death of an adult sibling. There was concern that a subject's ability to recall the events of the sibling loss may be reduced over time. Therefore, the five-year time frame provided opportunity for reasonable access to information about the sibling loss within a specified period of time.

Sampling Procedures

The subjects for this study were obtained through a purposive sampling procedure. Although these non-probability procedures are necessary to identify adult individuals who met the requirements for inclusion in the study, they also present some limitations. One such limitation is that generalizations of the findings to other populations may be inappropriate.

The subjects for this purposive sample were selected by responding to a newspaper advertisement that appeared in the local newspaper on three separate occasions. Subjects consisted primarily of people living in a small semi-rural midwestern town with a population of approximately 35,000. In the event that the advertisement did not elicit a sufficient number of subjects, a separate list had been developed over the past four years consisting of individuals known by the researcher to have experienced this particular kind of familial loss. An adequate number of subjects responded eliminating the need to use the subjects known to the researcher.

The newspaper advertisement asked potential subjects to call the investigator if they wished to participate or if they had any questions. With each inquiry, verification was made of the subjects death of an adult sibling within the past five years. A questionnaire was then sent to each subject who was willing to participate.

Advertising with the goal of obtaining a purposive sample

has been utilized in various research designs. Tobias, Ide and Kay, (1987) in an attempt to locate recent widows, placed an ad in several local newspapers in Tucson, Arizona. The specific study identified recently widowed spouses over the age of 40 with incomes less than $1000 per month. Thirty nine percent of the respondents in this survey responded to newspaper advertising. An additional 33% responded to a letter sent to survivors listed in the obituary section of the same newspaper.

Segal, Fletcher and Meekison (1986) also utilized the strategy of newspaper advertising to identify subjects that recently experienced the sudden death of a child under the age of five years. The total sample consisted of 61 families. In addition, the researchers also solicited health care professionals for possible respondents.

In the present study, the local newspaper was selected to attract a wide range of respondents relative to the various demographic variables that had been identified. In addition, it was anticipated that this sampling method would primarily attract a non-clinical sample. Although the percentage of individuals who experience a pathological response to the death of a significant other has not been empirically validated, the literature would suggest that 85% of the population experiences the resolution of grief without clinical intervention. In psychiatric outpatients, as high as 25% of the population has experienced unresolved grief

(Zisook, DeVaul, & Faschingbauer, 1979).

Administration of the Data Collection

It was anticipated that this data collection strategy would yield approximately 100 subjects, sufficient for multivariate analysis. A letter stating the purpose of the present study was sent to the surviving siblings requesting their participation in the present study.

Each person who met the requirement of the present study was sent a letter that explained the purpose of the study and included a consent form (See Appendix B). The data collection followed a three stage process which included an initial mailing and two follow-up procedures to insure an adequate response rate (Dillman, 1978). Respondents were asked to complete and return a questionnaire within one week of the initial mailing. A self addressed stamped envelope was included. All questionnaires were coded as a means of identifying nonrespondents and preventing duplication of mailings. The coding procedure permitted confidentiality of the responses and the data analysis was concerned with aggregate data and not individual responses. A specific return date was identified to insure appropriate and timely follow-up of the initial mailing. In addition, subjects were informed that the results of the research would be sent to them if they so desired. It was anticipated that this would encourage participation in the study.

The second phase of the data collection consisted of a

post card that was sent to each respondent one week after the initial mailing. The post card had a dual purpose in that it served as a reminder for those who had not completed the questionnaire as well as serving as a thank you response for those who had already returned the questionnaire. Mail was checked regularly and response rates were closely monitored.

Three weeks after the initial mailing, a replacement questionnaire was sent to nonrespondents. A brief letter was included with the replacement questionnaire that indicated the importance of completing the instrument (See Appendix D). In addition, personal telephone calls were made to encourage subject participation.

Measurement

The following section contains a listing of the major variables and the measures that were used to assess the identified variables. The rationale for the selection of all measures is also discussed.

Major Variables

I. The dependent variable in the current study was the level of grief at the time of the survey.

II. The independent variables in the current study consisted of the level of communication in the family of origin and current family, family cohesion in the family of origin and current family, adaptability in the family of origin and current family, differentiation of self from family of origin, self esteem and church attendance of

the surviving sibling. Variables that assessed characteristics of the sibling relationship included: Timeliness of the death of adult sibling, frequency of sibling contact, geographical proximity to the deceased, age differential between the deceased sibling and the survivor, degree of emotional closeness, gender sameness and overall communication between siblings.

III. The demographic variables which were identified as potentially relevant to the level of grief included: Educational achievement, socio-economic class, marital status, religious preference, gender, race and age of survivor.

Measurement

The Dependent Variable: Current level of grief

The Texas Revised Inventory of Grief (TRIG) was used to assess the dependent variable of level of grief at death and current level of grief (Faschingbauer, DeVaul, & Zisook, 1978). The TRIG was developed to help quantify and measure the grief reaction. The authors report that its development was through factor analysis, consisting of twenty one items identified in two scales. The inventory reflects the authors' clinical experiences in working with bereaved subjects. Group norms have been established for comparison of results. The inventory was originally developed with 57 psychiatric outpatients, all of whom had experienced a death in the family. Additional samples have included 211 bereaved

subjects that were solicited by mail in the United States.

The inventory consists of two Likert-type scales which respondents were asked to complete. A separate section contained questions that gathered demographic data. The first scale included eight questions designed to identify subjects' feelings and actions at the time of death. The second scale assessed present feelings relative to the death of a significant other. Subjects were asked to respond to various statements by indicating whether a given statement is "completely true", "mostly true", "true" and "false", "mostly false", or "completely false". As mentioned, the third section collected demographic data. However, the demographic data to be collected was modified to collect specific demographic data that was relevant to the present study.

Split half reliability correlation is .88 for part one and a .74 for part two for the TRIG. Alpha coefficients range from .89 on part one to .87 on part two, demonstrating a high level of internal consistency. In one replication study, the split half reliability was .82 for part one and .79 for part two. Given the results of the tests of reliability and validity, the TRIG appears to be a reliable and valid measure of a person's adjustment to the death of a significant other. Attempts have been made to assess construct validity by constructing various hypotheses relative to the content of the instrument. For example, the authors hypothesized that females who are often dependent on their spouse's income would

suffer greater disruption than males whose life training and socialization encourages self sufficiency. Using t-test procedures, females demonstrated a statistically significant higher score on the level of grief than that of males based on the responses to Part I of the inventory.

Independent Variables

The measurement of the independent variables included the following standardized self report instruments: The Open Family Communication Scale, Family Adaptability and Cohesion Evaluation Scales (FACES III), Intergenerational Fusion Individuation subscale of the Personal Authority in the Family System (PAFS-Q), and the Index of Self Esteem (ISE). In addition, questions were solicited to obtain relevant socio-demographic data.

Family Communication

The variable of family communication for this study was measured using the Open Family Communication scale, a more recent version of the Communication Scale developed by Barnes and Olson (1982). The scale measures various dimensions of familial communication and consists of twenty Likert-style items ranging from "strongly agree" to "strongly disagree". Scoring is obtained by summing the responses to the 10 items. The Communication Scale consists of three subscales that measure various aspects of familial communication which include open family communication, problems in family communication, and selective communication.

Cronbach's alpha for the total scale is .72, suggesting an acceptable level of internal consistency. Test/retest reliability is reported at .60 for the entire scale and .78 on the Open Family Communication subscale. For the present study only the Family Communication subscale was used to measure the level of communication in the respondent's family of origin. The scale has been modified for the present study to measure the spousal communication in the family of procreation. Cronbach's alpha has been reported at .92 for internal consistency and an overall level of .72 for the entire scale. Additional studies utilizing the Communication scale have also reported high levels of internal consistency (Hawley, 1984; Fisher, 1987; Pink & Wampler, 1985; and Walker & Green, 1986).

Empirical evidence of reliability consists of two samples totaling 1,841 subjects. Alpha reliability in these samples are reported as .87 for open communication, .78 for problems in family communication and .88 for the total scale.

Factor analysis has been used to establish construct validity. The factor loadings using this procedure range from .54 to .72 suggesting that the Open Family Communication subscale is a valid measure of communication in the family of origin.

Family Cohesion

The cohesion levels of the family of origin and family of procreation were measured using the Cohesion subscale of the Family Adaptability and Cohesion Scales (FACES III). FACES

III represents the operationalization of Olson's Circumplex model of family systems (Olson, 1986; Olson, Portner, & Lavee, 1985). As stated in the previous chapter, this model of family functioning views family functioning on two broad dimensions of cohesion and adaptability. The model is based on a curvilinear assumption about family functioning. Families on the cohesion dimension may be disengaged, separated, connected and enmeshed. The four levels of adaptability have been identified as rigid, structured, flexible and chaotic. Severely dysfunctional families are found on both extremes of these two dimensions which include "chaotic" and "rigid" on the adaptability dimension and "disengaged" or "enmeshed" on the cohesion dimension. Optimally functioning families are balanced between these two dimensions of adaptabilty between chaos (too much change and rigidity) (not enough change) (Green, Harris, Forte, & Robinson, 1991). Likewise, optimal family functioning on the cohesion dimension may be either "separated" or "connected" between families that are less functional as "enmeshed" (overly close) or "disengaged" (not close enough). By combining the four dimensions of cohesion with the four dimensions of adaptability 16 different family types can be identified. Optimally functioning families cluster in the center of the model in the mid-range of the continuum between cohesion and adaptability.

The instrument itself consists of 20 Likert-style items.

Odd items are summed to arrive at a cohesion score and even items are summed to arrive at a measure of adaptability. Respondents select a five point response, ranging from "almost never" to "almost always".

Empirical testing of the model has produced mixed findings. Some studies have provided support for the curvilinear model of family functioning (Carnes, 1989; Clark, 1984; Olson & Killorin, 1984; Walker, McLaughlin, & Greene, 1988). However, other studies suggest little support for FACES III (Green, 1989; Green, Kolevzon, & Vosler, 1985; Hampson, Beavers, & Hulgus, 1988; Thomas & Cierpka, 1989). Differences in the results of the various empirical studies may reflect methodological difficulties in using different measuring devices, methods of analyzing data and types of samples used (Green et al., 1991).

The most convincing FACES III study to date consists of a sample of 2,400 people (Green et al., 1991). The results of this study suggest the need for modifications in the response labels for the current scales (Green et al., 1991). These response labels have been modified to more clearly articulate the scales as a curvilinear rather than a linear measure of family functioning for the present study.

These modifications reflect the most recent work in the evaluation of FACES III and the proposed FACES IV (Green et al., 1991). The modified response labels for the cohesion and adaptability scales consisted of "not often enough", "just

about right", and "too often".

Adaptability

Death in the family has long been recognized as a stressor requiring families to adjust and cope with the consequences of the death of a family member (Gelcer, 1986; Holmes & Rahe, 1967; McCubbin, Cauble, & Peterson, 1982). Based on the work of Green et al. (1991) the adaptability subscale in the present form fails to provide evidence of a curvilinear relationship of this dimension of family functioning.

The adaptability of the family of orientation and family of procreation was measured using the adaptability subscale of the Family Adaptability and Cohesion Scales. As previously mentioned FACES III presents the operationalization of the Olson's Circumplex Model of family functioning (Olson, 1988; Olson, Portner, & Levee, 1985). Cronbach's alpha is .59 - .63 indicating an acceptable level of internal consistency. Olson (1986) provides a summary of the reliability and validity of the instrument. As with the cohesion scale, the adaptability scale response labels were modified to reflect the curvilinear model of family functioning. The adaptability scale consisted of ten Likert-style questions in which the subject selected "not often enough", "just about right", and "too often".

Differentiation of Self

It has been hypothesized that subjects with low levels of differentiation of self from their family of origin will

report higher levels of grief than those who have higher levels of differentiation of self from the family of origin. The level of differentiation for the present study was measured using the Intergenerational Fusion/Individuation subscale of the Personal Authority in the Family System Questionnaire (PAF-Q) (Bray, Williamson & Malone, 1984a). The scale has been constructed based on clinical experience and consists of eight subscales. The Intergenerational Fusion/Individuation subscale measures the degree to which an individual is fused or individuated in relation to his/her parents (family of origin). The scale consists of eight Likert-style items with response categories of "strongly agree", "agree", "neutral", "disagree", and "strongly disagree".

Using Cronbachs alpha, the reliability of the Intergenerational Fusion/Individuation is .87, suggesting high internal consistency of response items. Test-retest reliability estimates range from .55 to .70.

Face as well as content validity have been established by using expert judges that have modified and eliminated specific questions based on these observations. Factor analysis techniques have been used to establish construct validity, which have revealed congruence with the various factor loadings. Additionally, criterion validity has been supported by significant positive correlations with the Family Adaptability and Cohesion Scale (FACES-I) and the Dyadic

Adjustment Scales (DAS) and negative correlations with the Symptom Index, which is a measure of psychosomatic, physical symptoms and stress indicators (Bray, Williamson, & Malone, 1984b). Based on the stated statistical tests of reliability and validity the PAFS-Q is a valid and reliable measure of the differentiation of self from family of origin.

Index of Self Esteem

The independent variable of self esteem was measured using one of the nine paper and pencil measures developed by Walter Hudson (1982). The Index of Self Esteem (ISE) measures the degree and magnitude that an individual has with his/her self esteem. The instrument consists of 25 items in which subjects used a Likert rating scale. Cutting points have been established with this particular instrument in that scores above 30 indicate the respondent has a clinically significant problem with self esteem and scores below 30 indicate the absence of clinically significant levels of self esteem.

Hudson (1982) cites numerous studies which have demonstrated the reliability and validity of the clinical scale. Based on Cronbach's alpha, internal consistency reliability ranges from a .91 to .95. Test retest reliability after two hours has been established at .92.

Various tests of validity have included content, discriminant, construct and factorial (Hontanosas, Cruz, Kaneshiro & Sanchez, 1979; Hudson, Abell, & Jones, 1982; Hudson & McIntosh, 1981; Hudson & Nurius, 1981; Hudson &

Proctor, 1976; Murphey, Hudson & Cheung, 1980; Nurius, 1982).

Sibling Variables

The sibling characteristic variables in the present study include: Frequency of sibling contact, geographical proximity to the deceased, age differential, level of emotional closeness and overall communication with sibling. In addition, the gender of the sibling dyad and level of anticipation of the death have been identified as variables which may effect the level of grief.

A review of the literature failed to reveal any standardized instruments which would assess the identified characteristics of the adult sibling relationship. In the absence of such a measure, the researcher constructed several items that assessed the identified characteristics of sibling relationships. These measures are contained in the questionnaire. The construction of the specific item responses for the sibling variables were designed using the procedures outlined in Dillman, (1978). Since no existing measures exist to tap the identified characteristics of sibling relationships, information concerning reliability and validity were non-existent.

Demographic Data

In addition to the standardized instruments, subjects were asked to respond to several items which provided relevant information concerning various aspects of adult sibling loss and the level of grief as well as some background data. The

various items were contained in two sections; one of which gathered information about the respondents' age, gender, marital status, educational background, social economic class, religious affiliation and race.

The other section specifically asked questions that were related to the adult sibling loss and characteristics of the sibling relationship. Information requested from this section included; the date of the adult sibling loss, whether or not the death was expected, age nearness to deceased sibling, geographic proximity to deceased sibling, and gender of deceased sibling. Information obtained from the second section was analyzed as possible intervening variables which may have effected the relationship between the independent variables and the dependent variable of the level of grief of an adult sibling.

These six self report instruments (Texas Revised Inventory of Grief (TRIG), Open Family Communication subscale, Cohesion subscale of FACES III, Adaptability subscale of FACES III, Intergenerational Fusion Individuation subscale of the Personal Authority in the Family System (PAFS-Q), Index of Self-Esteem (ISE)) were used to measure the variables as identified in the present study. Additional questions were selected to collect data on relevant demographic variables and selected characteristics of the adult sibling relationship.

The questionnaire was pre-tested by administering to a small number of subjects selected at random from the potential

list of respondents developed by the researcher. Modifications were made as needed and then the questionnaire was sent to subjects responding to the newspaper advertisement.

Data Analysis

Univariate, bivariate and multivariate levels of analysis were conducted on the data collected for the present study. Because the amount of time since the death of a sibling varied from as little as a few months to as much as five years, time was treated as an intervening variable and was statistically controlled in all bivariate and multivariate analyses.

Univariate analysis provided a description of the total sample characteristics as identified earlier in this chapter. In addition, an overall profile of respondents was constructed. The means and standard deviations were determined from the sample relative to comparisons of normative samples on existing scales when available and appropriate.

The second stage of data analysis included bivariate analysis using Person's Product Moment Correlation Coefficients. This procedure permitted an examination of the strength of correlations among the identified variables.

The third level of analysis was multivariate. The 16 hypotheses were tested using multiple regression analysis. Multivariate analysis was also used to develop a best predictive model of grief at the time of the survey and grief

at the time of death.

CHAPTER IV

Results

This chapter reports the findings of the statistical analysis of the data. A description of the sample and analysis at the univariate, bivariate and multivariate levels are reported.

Description of the Sample

Response Rate

The sample is comprised of subjects who responded to a newspaper advertisement in a semi-rural midwest community of 40,000 (See Appendix A). The newspaper ad was placed in the local paper on three consecutive Wednesdays in the summer of 1991. The ad was located in the obituary section in each of the three printings. This technique yielded 94 people who were willing to participate in the study. Of the 94 questionnaires that were sent to potential subjects, 84 were returned yielding an 89% return rate.

Sample Characteristics

The demographic characteristics of the sample are identified in Table 7. The respondents were predominantly white (94%), middle-age females (80%). All reported experiencing the death of an adult sibling within the last five years. Forty-seven percent (n=39) of the sample are

Table 7

Demographic and Background Variables

Variable	Total Sample (N=84)
Age	
M	49.2 years SD 13.55
Age of deceased sibling	
M	47.6 years SD 16.65
Gender	
Female	80% (n=67)
Male	20% (n=17)
Gender of deceased and survivor	
Sisters reporting death of brother	47.0% (n=39)
Sisters reporting death of sister	32.5% (n=27)
Brothers reporting death of brother	13.3% (n=11)
Brothers reporting death of sister	7.2% (n=6)
Race	
White	94%
Religion	
Protestant	81%
Education	
M	13.38 years SD 2.67
Marital Status	
Married	81%
Months since death of sibling	
M	26.4 months
Cause of death	59.0% disease/illness 21.7% accident

sisters who reported the death of a brother while 32.5% (n=27) are sisters who reported the death of a sister. Only 7.2% (n=6) of the sample are brothers who reported the death of a sister and 13.3% (n=11) are brothers who reported the death of a brother.

The mean age for the respondents is 49.2 years with a range of 22-77 years old. The mean age of the deceased sibling at the time of death is 47.6 years with a range of 18-75 years old. The sample is 81% protestant with 59% being active or regularly involved in organized religion. Eighty-one percent (81%) of the sample are married and the mean educational level is 13.39 years. The average number of months since the death of the respondent's sibling is 26.4 with a range of one to 60 months. Thirty-three percent (33%) of the sample have experienced the sibling death during the past 12 months. Sixty-five percent (65%) of the sample visited their sibling from one to four times per month in the year preceding their sibling's death. Fifty percent (50%) of the sample reported living less than 50 miles from the deceased sibling.

In addition to the sibling death, 63% of the sample experienced the death of a significant other within the last five years. Excluding parents and additional siblings, 27% reported the death of another relative and 17% reported the death of a friend. Thirteen percent (13%) of the sample reported the death of another brother or sister within the

last five years.

Univariate Analysis

Independent Variables

Communication

The Open Family Communication scale (OFC-P) was used to measure the level of communication between the subject and his/her parents. The same scale with slight modification was also used to measure the level of communication between the subject and current family (OFC-C) as well as the subject and his/her sibling (OFC-S). The mean OFC-P score for the sample is 32.69 with a range of 10 to 48. The standard deviation was 9.40. The subject's communication in the current family shows a mean of 38.16 with a range of 10 to 50 and standard deviation of 8.98. A paired t-test indicated scores on the OFC-C were significantly higher in the current family than the family of origin ($t = -4.03$, $p < .001$). The mean for the OFC-S is 37.46 with a range of 10 to 50 and a standard deviation of 8.98. The difference in the level of communication with their deceased sibling at the time of death is negligible compared to the overall communication with sibling. The mean of the communication at the time of death was 37.72 and a standard deviation of 8.20. A paired t-test showed no significant differences between the overall OFC-S with the OFC-S scores at the time of death ($t = -.40$, $p = .35$). Subjects reported the highest levels of communication with their current family and lowest levels in their family of

origin.

Cohesion

The level of family cohesion was measured in both the family of origin and the current family using a modified version of the Cohesion subscale of the Family Adaptability and Cohesion Evaluation Scales (FACES III). As mentioned in the previous chapter the response labels were modified to include categories of "not often enough", "just about right", and "too often", on a five point scale. A response of two or four represents categories between the two ends of the continuum. The present scale was recoded to permit correlation analysis. A value of three was assigned to the response category of "just about right". Respondents who were equidistant between the three categories were assigned a value of two. Respondents who reported "too often" or "not often enough" were assigned a value of one. Recoding of the responses created a scale with a range of 10 to 30. Lower scores indicate values in which the respondent was either "too often" or "not often enough" in their relationship with the family of origin and current family. Higher scores indicate increasing levels of respondents reporting "just about right" category. The means for the cohesion in both the family of origin and current family are the same (23.7). The standard deviation in the family of origin is 5.16 compared to 5.00 in the current family.

A paired t-test indicated no significant difference

between the cohesion scores in the family of origin and current family (t = .17, p = .35). Since the response labels and scale have been modified for the present study there is no normed data presently available by which to compare the current sample with previous studies using the modified version of FACES III.

Adaptability

Adaptability in the present study was measured using the modified version of the Adaptability Subscale of the Family Adaptability and Cohesion Evaluation Scales (FACES III). The response categories were recoded using the same procedures previously discussed for the recoding of the cohesion scale. This procedure permitted a linear correlational analysis of the data. After recoding the raw scores, the sample mean for scores on adaptability in the family of origin is 20.05 (range of 10-30) and 24.0 (range of 10-30) in the current family. A paired t-test between scores in the family of origin and the current family revealed significant differences between the two groups (t = .613, p < .001). Respondents had higher levels of adaptability in their current family compared to their family of origin. Table 8 summarizes the paired t-test results of the means of communication, cohesion and adaptability.

Grief

The Texas Revised Inventory of Grief Scale (TRIG) consists of 21 items and two scales. The first scale (eight

Table 8

Relationship Between Scores on Family Variables of Communication, Cohesion and Adaptability

	Family of Origin		Current Family		t-value
	M	SD	M	SD	
Communication (OFC)	32.69	9.40	38.16	8.98	t = -.403*
Cohesion (FACES III)	27.80	5.95	30.02	6.95	t = -.17
Adaptability (FACES III)	22.87	5.49	26.90	4.94	t =-6.13*

*p < .001

items) measures the level of grief at the time of death (LOG-D) and the second scale (13 items) measures the level of the current grief response (LOG-C). The two scales were developed with the author asking friends and colleagues to have one or two of their friends and neighbors who lost a loved one through death to complete a questionnaire. Two hundred and sixty questionnaires were returned and a replication study consisted of 145 completed questionnaires (Faschingbauer, 1981). The initial sample consisted of 63% female, 64% Caucasian, and a mean age of 38 years.

Based on the coding of response categories low scores indicate low levels of grief while high scores indicate high levels of grief. The current sample has an overall mean score of 15.36 (range 0-32) with a standard deviation of 8.06 with LOG-D scores. The overall mean for the LOG-C scores is 32.08 (range 1-52) with a standard deviation of 11.20. Norms have been developed for both scales according to the length of time since death, i.e. first year, 2-5 years, 5-10 years and over 10 years (Faschingbauer, 1981). Using this differentiation of time the current sample has a mean of 16.50 for LOG-D scores during the first year and 14.32 for LOG-D scores in years two through five. This compares to the normed data of 15.70 for the first year and 17.80 for years two through five. The current sample consists of scores that have a wider dispersion compared to normed data for LOG-D scores.

As mentioned, the overall mean of the LOG-C scores in the

current sample is 32.08 with a standard deviation of 11.20. When scores are categorized by years since the death, the mean of the LOG-C scores are 34.64 for the first year and 30.32 for years two through five. Normed data for the LOG-C scores is 34.20, with a standard deviation of 1.5 for the first year and 37.10 for years two through five with a standard deviation of 1.4. The present sample is similar to the normed data on both LOG-D and LOG-C scores. Table 9 summarizes the comparisons between sample means and normative data. As can be seen from the table the present sample has a wider dispersion of scores on both scales when comparing the standard deviations of the current sample to the normed data.

Personal Family Authority Questionnaire (PFAQ)

The Intergenerational Fusion Individuation Scale (INFUS) was used to measure the level of the subject's individuation from his/her parents. Scores for the INFUS range from 8 to 40 with higher scores being indicative of higher levels of individuation from parents. In the present study the mean score for the INFUS is 27.3 (range of 9 to 38) with a standard deviation of 5.7. The existing normed data is 29.53 with a standard deviation of 5.25 (Bray, Williamson, & Malone, 1984b). By comparison, the present study consists of subjects that score similarly to normed data on levels of individuation. Table 10 compares the INFUS scores of the current sample with normed data that consisted of 100 middle class adults, with an age range of 25-46 years. The sample

Table 9

Comparison Between Sample Scores and Normed Data on Level of Grief

	Normative Data				Current Sample			
	First Year		Years 2-5		First Year		Years 2-5	
	M	SD	M	SD	M	SD	M	SD
Level of Grief at Death (LOG-D)	15.7	0.9	17.8	0.7	16.50	7.83	14.32	8.12
Level of Current Grief (LOG-C)	34.2	1.5	37.1	1.4	34.64	10.13	30.32	11.71

Table 10

Comparison of Sample Scores with Normed Data on Level of Parental Individuation (INFUS)

	Current Sample		Normed Data	
	M	SD	M	SD
Level of Parental Individuation (INFUS)	27.3	5.72	29.53	5.25

was selected from a nonclinical population.

Index of Self Esteem: ISE

The Index of Self Esteem (ISE) was used to measure the level and magnitude of self esteem in the current study. Cutting points have been established with this instrument in that scores above 30 suggest clinically significant problems with self esteem while scores below 30 indicate the absence of clinically significant problems (Hudson, 1982). The mean for all respondents on the ISE was 29.04 with a range of 0 to 85. The standard deviation was 17.61. Fifty-four percent (54%) of the sample have scores that are below the cutting point of 30, indicating no clinically significant problems with self-esteem.

Instrumentation: Reliability

The six scales used were tested for estimates of internal consistency using Chronbach's alpha. The reliability coefficients for the six scales ranged from .73 to .95 and are consistent with previously reported reliability data (Barnes & Olson, 1982; Bray, Williamson, & Malone 1984a; Faschingbauer, DeVaul, & Zisook, 1978; Fisher, 1987; Green, Harris, Forte, & Robinson, 1991; Hawley, 1984; Hudson, 1982; Olson, 1986; Olson, 1988; Olson, Portner, & Lavee, 1985; Pink & Wampler, 1985; Walker & Greene, 1986). Table 11 summarizes the reliability information for the six scales.

Summary of Univariate Analysis

With only slight variations noted, the current sample

Table 11

Reliability Coefficients of Instrumentation: Chronbach's Alpha

Instrument	# of Items	Reliability
Communication	10	
Family of Origin (OFC-P)		.94
Current Family (OFC-C)		.95
Overall Communication with Sibling (OFC-S)		.94
Communication with Sibling at Death		.93
Family Adaptability and Cohesion Evaluation Scales (FACES III)		
Cohesion Subscale	10	
Family of Origin (OFC-P)		.82
Current Family (OFC-C)		.89
Adaptability Subscale	10	
Family of Origin (OFC-S)		.73
Current Family (OFC-D)		.74
Texas Revised Inventory of Grief (TRIG)		
Grief Response at Death (LOG-D)	8	.88
Current Grief Response (LOG-C)	13	.92
Personal Authority in the Family System Questionnaire		
Intergenerational Fusion/ Individuation Subscale (INFUS)	8	.74
Index of Self Esteem (ISE)	25	.94

presents similar findings when comparing scores to the normed data that are available from the six standardized instruments used in the present study. Overall the sample emerges as a group characterized by scores on the LOG-D and LOG-C scales that are similar to normed data. Paired t-tests reveal statistically significant differences between the subjects communication in the family of origin and current family. Paired t-tests results show no significant differences between overall communication with the sibling and communication with sibling at the time of death. Highest levels of communication were reported in the current family while lowest levels were reported in the family of origin.

No differences were found between the cohesion scores in the family of origin and the current family. Paired t-tests did reveal statistical significance between adaptability scores in the family of origin and current family. Respondents reported higher adaptability scores in their current family. Scores on the INFUS are similar to those of normed data for previous studies (Bray, Williamson, & Malone, 1984b). The following section examines the bivariate analysis of the sixteen hypotheses that served as the basis of the present study (see Table 12). The results of this analysis are discussed in examining the familial, individual and sibling variables that were tested.

Table 12

Hypotheses in the Current Study

Hypothesis I:

Subjects who report higher levels of communication in their family of origin will report lower levels of grief than those who report lower levels of communication in their family of origin.

Hypothesis II:

Subjects who report more extreme levels of cohesion in their family of origin will report higher levels of grief of an adult sibling than subjects who report balanced levels of cohesion in their family of origin.

Hypothesis III:

Subjects who report more extreme levels of adaptability in their family of origin will report higher levels of grief than subjects reporting balanced levels of adaptability in their family of origin.

Hypothesis IV:

Subjects who report higher levels of communication in the family of procreation will report lower levels of grief than those who report lower levels of communication in their family of procreation.

Hypothesis V:

Subjects who report more extreme levels of cohesion in the family of procreation will report higher levels of grief of an adult sibling than subjects who report balanced levels of cohesion in the family of procreation.

Hypothesis VI:

Subjects who report more extreme levels of adaptability in the family of procreation will report higher levels of grief of an adult sibling than subjects who report balanced levels of adaptability in the family of procreation.

(Table Continues)

Table 12 (continued)

Hypotheses in the Current Study

Hypothesis VII:

Subjects who report lower levels of individuation will report higher levels of grief of an adult sibling than subjects who report high levels of individuation.

Hypothesis VIII:

Subjects who report the cause of the sibling's death as an accident will be more likely to report higher levels of grief than those subjects who report the sibling's death due to natural causes.

Hypothesis IX:

Subjects who report higher levels of self esteem are more likely to report lower levels of grief than subjects who report lower levels of self esteem.

Hypothesis X:

Subjects who report higher levels of church attendance will have lower levels of grief than subjects who report lower levels of church attendance.

Hypothesis XI:

Subjects who report higher levels of overall communication with the deceased sibling will report lower levels of grief than subjects who report lower levels of overall communication with the deceased sibling.

Hypothesis XII:

Subjects who report more frequent contact with the deceased sibling will report lower levels of grief than subjects who report less frequent contact with the deceased sibling.

Hypothesis XIII:

Subjects who live in close proximity to the deceased sibling will report lower levels of grief than those subjects with greater geographical distance.

(Table Continues)

Table 12 (continued)

Hypotheses in the Current Study

Hypothesis XIV:

Subjects who are closer in age to the deceased sibling will report higher levels of grief than those who are significantly older or younger.

Hypothesis XV:

Subjects who perceived their relationship with the deceased as emotionally close will report lower levels of grief than those subjects who perceived the relationship as emotionally distant.

Hypothesis XVI:

Subjects who report the deceased sibling of the same gender will have lower levels of grief than subjects of the opposite gender.

Bivariate Analysis

Testing of Hypotheses

Family of Origin Characteristics

Correlational techniques were used to test the hypotheses at the bivariate level. As anticipated, scores on the level of grief at death (LOG-D) were strongly correlated with the scores on the current level of grief (LOG-C), (r= .69, p< .001). The amount of time since the death and the level of grief at death are critical variables in determining a subject's current level of grief. Zero-order Pearson correlation co-efficients were used to examine the relationship between each independent variable and subject's scores on the current level of grief (LOG-C). Then to control for the subject's age, number of months since the sibling death and level of grief at death, a series of first order partial correlation co-efficients were calculated for each hypothesis.

As Table 12 indicates, the first three hypotheses predict relationships between the family variables of communication, cohesion and adaptability in the family of origin and the current level of grief. Table 13 summarizes the results of the correlational procedures for the family of origin variables. There were no statistically significant relationships between any of the family of origin variables and the level of current grief.

Current Family Characteristics

Hypotheses 4 through 6 predict relationships between current family variables of communication, cohesion and adaptability and the current level of grief. As summarized in Table 14, no statistically significant relationships emerged for the characteristics of the current family.

Individual Characteristics

Hypotheses 7 through 10 predict relationships between individual respondent variables and the current level of grief. Table 15 summarizes the results concerning the relationships between the individual variables and LOG-C scores. As can be observed in Table 15, these individual variables correlated more consistently and with higher magnitudes than the family of origin and current family variables. Only the relationship between cause of death and current level of grief was not statistically significant. Thus, three of the four individual level hypotheses were supported.

Of these relationships tested, the relationship between church attendance and current level of grief (LOG-C) was the strongest and most consistent. The statistically significant relationship (r= -.47) was maintained even when the influence of age (r= -.43) time (r= -.47) and level of grief at death (r= .32) were controlled. Therefore, respondents who report regular church attendance report lower levels of grief.

The ISE was also correlated in the predicted direction

Table 13

Relationship Between Current Level of Grief and Family of Origin Characteristics

Family Measure	Zero Order Correlation	Controlling for: Age	Controlling for: Months Since Death	Controlling for: Level of Grief at Death
Communication (OFC-P)	.13	.09	.11	.03
Cohesion (FACES III)	.04	.00	.02	-.06
Adaptability (FACES III)	-.14	-.13	-.12	-.13

Table 14

Relationship Between Current Level of Grief and Current Family

Family Measure	Zero Order Correlation	Controlling for		
		Age	Months Since Death	Level of Grief at Death
Communication (OFC-C)	-.06	.01	-.06	-.03
Cohesion (FACES III)	.01	.02	.00	.10
Adaptability (FACES III)	.00	-.03	.02	.03

Table 15

Relationship Between Current Level of Grief and Individual Characteristics

Individual Measure	Zero Order Correlation	Controlling for		
		Age	Months Since Death	Level of Grief at Death
Individuation (INFUS)	-.23*	-.28*	-.23*	-.03
Cause of Death	-.04	-.06	.01	-.19*
Self Esteem (ISE)	.38***	.32**	.39***	.11
Church Attendance	-.47***	-.43***	-.47***	-.32**

*$p < .05$, **$p < .01$, ***$p < .001$

with current level of grief (r= .38). This relationship was retained when age and time were controlled, but dissipated when the level of grief at death was partialled out. Similarly, the relationship between individuation and current level of grief (r=.23) was retained when age and time were controlled but was not statistically significant when level of grief at death was controlled (r= -.03, p= .42). Respondents who reported higher levels of individuation had lower levels of grief at the time of the survey. The cause of death was statistically significant with the current level of grief only when controlling for the level of grief at death (r= -.19). The level of grief at death was higher for respondents that experienced the loss through a sudden death.

Sibling Relationship Characteristics

Hypotheses 11 through 16 predict relationships between sibling relationship variables and current level of grief. Table 16 summarizes the results concerning the relationships between these variables. As indicated in Table 16, support was found for only one of the sibling relationship variables of the hypotheses tested. The relationship of geographical proximity and current level of grief was supported in the predicted direction (r= .26). Specifically, respondents who lived closer to their sibling had lower levels of grief than siblings who lived further away. This relationship was maintained when controlling for age (r= .25) and time (r= .27) but dissipated when controlling for level of grief at death

Table 16

Relationship Between Current Level of Grief and Characteristics of the Sibling Relationship

Sibling Measure	Zero Order Correlation	Controlling for: Age	Controlling for: Months Since Death	Controlling for: Level of Grief at Death
Communication	.32**	.35***	.34***	.22*
Frequency of Contact	.13	.14	.14	-.02
Proximity	.26**	.25**	.27**	.10
Age Closeness	-.04	.04	-.04	.07
Emotional Closeness	-.16	-.07	-.17	.16
Same Gender	-.01	.04	.02	.04

*p < .05, **p <.01, ***p <.001

(r= .10).

No statistical support was found for the sibling relationship variables of age similarity, emotional closeness, frequency of visits and gender sameness with scores on LOG-C.

A statistically significant relationship was found between the overall communication with sibling and current level of grief (LOG-C), (r= .32, p< .002). Of the sibling relationships tested, the overall communication with sibling was the most consistent. This relationship was maintained when controlling for age (r= .35), time (r= .34) and level of grief at death (r= .22). Surprisingly, this statistically significant relationship was not in the hypothesized direction. Siblings who report higher levels of overall communication with their sibling also reported higher levels of grief at the time of the survey.

Summary of Bivariate Analysis of Hypotheses

Hypotheses I through III predicted relationships between the family of origin characteristics on the dimensions of communication, cohesion and adaptability with the current level of grief (LOG-C). Correlational analysis provided no support for the predicted relationships with the family of origin variables of communication, cohesion and adaptability with LOG-C scores.

Hypotheses IV through VI predicted relationships between the current family variables of communication, cohesion and adaptability with LOG-C scores. As with the family of origin

characteristics, no support was provided for the predicted relationships between the current family characteristics of communication, cohesion and adaptability with current level of grief (LOG-C).

Hypotheses VII through X predicted relationships between the individual characteristics of the sibling relationship and the LOG-C scores. Statistical support emerged for the predicted relationship with levels of individuation and remained stable while controlling for age and time. Similarly, support was found for the predicted relationship between self esteem scores and LOG-C scores. Church attendance was the strongest and most consistent relationship among the individual variables. No statistical support emerged for the predicted relationship of cause of death with LOG-C scores.

Hypotheses XI through XVI predicted relationships between characteristics of the sibling relationship and LOG-C scores. Correlational analysis for these predictions produced mixed findings. Statistical support was found for the relationship between geographical proximity to the deceased and current level of grief. No statistical support emerged for the closeness in age, siblings of the same gender or frequency of visits with LOG-C scores. A correlation was found for the relationship on overall communication with sibling (OFC-S) and LOG-C scores. This relationship was not in the hypothesized direction.

Multivariate Analysis

Multiple regression analysis was used to develop models that could best predict the respondents' current level of grief (LOG-C). The large number of variables and the number of cases available for analysis prohibited the inclusion of all independent variables (Achen, 1982; Norusis, 1985). Therefore, the variables selected for regression analysis were those independent variables that had statistically significant correlations with current level of grief (LOG-C). These variables included church attendance, individuation, self-esteem, geographical proximity and overall communication with sibling. In addition, selected demographic variables were entered to determine their contribution to the model. Table 17 contains the correlation matrix of all independent variables used in the regression analysis. As summarized in the table, the correlation coefficients between the independent variables tend to be minimal.

Two additional variables (level of grief at death and the amount of time since the death) were also included in the analysis. These variables demonstrated consistent correlations at the bivariate level in the present study and in previous studies (Dimond, Lund, & Caserta, 1987; Gerber, Rusalem, & Hannon, 1975; Zisook & Shuchter, 1986; Zisook, Shuchter, & Schuckit, 1985). In the testing of all models, all variables were entered using forced entry procedures. An overview and the predictive power of each model will be

Table 17

Zero Order Correlations Among All Independent Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Communication in Family of Origin	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2 Communication with Spouse	.05	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3 Overall Communication with Sibling	.38	-.04	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.
4 Cohesion in Family of Origin	.53	.08	.33	1.00	.	.	.	.	.	.	.	.	.	.	.	.
5 Adaptability in Family of Origin	.40	.04	.24	.10	1.00	.	.	.	.	.	.	.	.	.	.	.
6 Cohesion in Current Family	.10	.29	-.06	.26	-.19	1.00	.	.	.	.	.	.	.	.	.	.
7 Adaptability in Current Family	-.04	-.13	-.04	-.05	.17	.18	1.00	.	.	.	.	.	.	.	.	.
8 Differentiation of Self	.39	.19	.02	.36	.20	.07	-.10	1.00	.	.	.	.	.	.	.	.
9 Level of Self Esteem	-.19	-.17	-.10	-.21	-.24	-.41	-.11	-.45	1.00	.	.	.	.	.	.	.
10 Number of Visits to Sibling	.25	-.03	.28	-.09	.08	-.16	-.11	.02	.10	1.00	.	.	.	.	.	.
11 Geographical Proximity	.33	-.04	.35	.17	.07	-.12	-.03	-.03	.10	.52	1.00	.	.	.	.	.
12 Church Attendance	.06	.18	-.11	-.03	.00	-.01	-.01	.29	-.25	.05	.04	1.00	.	.	.	.
13 Cause of Sibling's Death	.14	-.11	.07	.18	.01	-.01	-.20	.03	.04	.03	.01	-.11	1.00	.	.	.
14 Emotional Closeness	.20	.02	.32	.21	.27	.07	.15	.27	-.26	-.03	.10	.09	-.15	1.00	.	.
15 Same Gender	-.07	-.09	.21	-.02	.13	-.15	.15	-.10	.09	.02	.03	.02	.02	-.04	1.00	.
16 Age Similarity	-.03	.04	-.09	.04	.02	-.07	.08	-.01	-.12	-.13	.11	-.06	.08	.07	-.17	1.00

discussed.

As previously mentioned, only variables that had statistically significant coefficients at the bivariate level were included in the analysis. Of the variables entered in the first model, church attendance was the only individual variable with a statistically significant beta (beta = -.228, t< .05). Overall communication with the sibling was the only sibling relationship variable that was statistically significant albeit positive rather than in the predicted negative direction (beta = .201, t< .05). As was expected, the level of grief at death (beta = .396, t< .001) and the number of months since the death (beta = -.196, t< .01) were also found to have statistically significant betas. The demographic variables of income, age, gender and education were not statistically significant. The level of grief at death had the highest magnitude of correlation with current level of grief reported at the time of the survey (beta = .396, t< .001). The total amount of variance explained in the first model was 61.7%. Table 18 summarizes the results of the regression of selected demographic variables, grief at death, months since death, and statistically significant independent variables with current level of grief (LOG-C).

The second statistical model employs only those variables that had statistically significant betas in the first model. These four variables were entered to determine their overall contribution in the prediction of the current level of grief

Table 18

Multivariate Analysis: Regression of Selected Demographic Variables, Grief at Death, Months Since Death and All Statistically Significant Independent Variables

Variable	Beta	t-value
Level of Grief at Death	.40	3.70***
Months Since Death	-.20	-2.54**
Demographic Variables		
Income	.03	.33
Gender	.07	.93
Education	-.02	-.21
Age	-.16	-1.68
Individual Variables		
Church Attendance	-.23	-2.75**
Individuation	.04	-.01
Self Esteem	.12	1.36
Sibling Relationship Variables		
Geographical Proximity	.07	.85
Communication with Sibling	.20	2.40*
R^2	.617	
R^2 (adjusted)	.559	
F	10.55	t< .0001

*p< .05, **p< .01, ***p< .001

(LOG-C). The magnitude of the level of grief at death (LOG-D) (beta = .553, t< .0001) and the variable of church attendance (beta = -.237, t< .05) were the strongest predictors of current level of grief. As can be seen in Table 19, the amount of explained variance in the LOG-C score was 58%. The amount of variance explained is less than the first model since the nonsignificant variables had been removed. The variables of overall communication with sibling and months since the death were of equal importance in predicting the current level of grief (LOG-C). Table 19 summarizes the regression of grief at death, months since death, individual and sibling relationship variables.

Because of the importance of the level of grief at death (LOG-D) in explaining the current level of grief (LOG-C), a second group of analyses using the LOG-D scores as the dependent variable were conducted. All independent variables in the earlier hypotheses were included. The Pearson Correlation coefficients between the independent variables and the level of grief at death (LOG-D) are found in Table 20. This analysis indicated that three individual variables and four sibling relationship variables were found to be significant.

Next, all variables with statistically significant coefficients were entered in the regression model. The results of this analysis revealed a larger number of statistically significant correlations between the independent

Table 19

Multivariate Analysis: Regression of Grief at Death, Months Since Death, Individual and Sibling Relationship Variables

Variable	Beta		t-value
Level of Grief at Death	.55		6.89**
Months Since Death	-.17		-2.25*
Individual Variables			
Church Attendance	-.28		-3.02*
Sibling Relationship Variables			
Communication with Sibling	.16		2.17*
R^2		.580	
R^2 (adjusted)		.559	
F		27.30	t< .0001

*p< .05, **p< .0001

Table 20

Correlations Between Grief at Death and all Independent Variables

Variable	Correlation Coefficients
Family Variables	
Family of Origin	
Communication	.16
Cohesion	.12
Adaptability	-.06
Current Family	
Communication	-.11
Cohesion	-.09
Adaptability	-.03
Individual Variables	
Individuation	-.30**
Cause of Death	.14
Self Esteem	.46***
Church Attendance	-.37***
Sibling Relationship Variables	
Frequency of Contact	.21*
Geographical Proximity	.28**
Age Similarity	-.13
Emotional Closeness	-.40***
Same Gender	-.05
Communication	.23*

*p< .05, **p< .01, ***p< .001

variables and level of grief at death (LOG-D) than what was found between the independent variables and level of current grief (LOG-C). Of the variables entered in this analysis, emotional closeness had the largest correlation (beta = -.413, t< .0001) with the respondents' level of grief at death (LOG-D). This strong correlation indicates that subjects who reported their emotional closeness with their sibling as "just about right" had higher levels of grief at the time of the death. Interestingly, the correlation between overall communication and level of grief at death (LOG-D) is opposite the hypothesized direction. Respondents that report higher levels of overall communication report higher levels of grief at both the time of death and current level of grief. The total amount of variance explained by this particular model was 50.8%. Table 21 summarizes the results of the multivariate analysis regression of individual and sibling relationship variables with level of grief at death (LOG-D).

The next predictor model for level of grief at death was created by selecting only statistically significant beta coefficients in the previous model. The individual variables of church attendance and self esteem were included as well as the sibling relationship variables of emotional closeness, communication with sibling and geographical proximity. The five variables that were entered in the regression analysis accounted for 50.7% of the variance found in the level of grief at death scores (LOG-D). As with the previous model,

Table 21

Multivariate Analysis: Regression of Individual and Sibling Relationship Variables on Level of Grief at Death

Variable	Beta	t-value
Individual Variables		
Church Attendance	-.23	-2.71**
Individuation	.10	.12
Self Esteem	.31	3.32***
Sibling Relationship Variables		
Frequency of Contact	-.02	-.16
Emotional Closeness	-.41	-4.62****
Communication with Sibling	.30	3.21**
Geographical Proximity	.21	2.09*
R^2	.508	
R^2 (adjusted)	.462	
F	11.19	t< .0001

*p< .05, **p< .01, ***p< .001, ****p< .0001

emotional closeness had the highest correlation with the level of grief at death (LOG-D), (beta = -.410, t< .0001). As in the case of current level of grief (LOG-C) the direction of this relationship was the same as those hypothesized at the bivariate level. Therefore, those respondents who report an acceptable level of emotional involvement with their sibling had higher scores on level of current grief (LOG-C). Table 22 summarizes the contribution of individual and sibling relationship variables with level of grief at the time of death.

Summary of Multivariate Analysis

Two specific predictor models for current level of grief were tested. Criteria for selection of variables consisted of those that had statistically significant correlations at the bivariate level of analysis. In addition, selected demographic variables were included for the first model. The first model revealed statistical support for the level of grief at death and months since the death. The individual variable of church attendance and the sibling relationship variable of overall communication with the sibling were also statistically significant in the first model. The first model provided 61.7% of the explained variance in the scores with the level of current grief (LOG-C). The second model used only those variables that had statistically significant betas from the first regression model. The four variables included for analysis were grief at death, months since the death, church attendance and overall communication with sibling.

Table 22

Contribution of Individual and Sibling Relationship Variables on Levels of Grief at Death

Variable	Beta	t-value
Individual Variables		
Church Attendance	-.23	2.79*
Self Esteem	.30	3.52**
Sibling Relationship Variables		
Emotional Closeness	-.41	-4.75***
Communication with Sibling	.30	3.27**
Geographical Proximity	.20	2.31*
R^2	.507	
R^2 (adjusted)	.476	
F	16.07	t< .0001

*p< .05, **p< .001, ***p< .0001

These four variables explained 58% of the variance in scores on the current level of grief (LOG-C). The second model explained less variance than the first due to the nonsignificant variables being removed from the analysis. In both models, the level of grief at death (LOG-D) was the most consistent and strongest predictor of current level of grief (LOG-C).

Because of the importance of the level of grief at death (LOG-D) separate correlational analyses, followed by the development of two regression models, were also completed for this variable. The procedures for the creation of this model were the same as those used to develop the current level of grief model. The number of variables that had statistically significant betas for this model were greater than those obtained when current level of grief (LOG-C) was used as a dependent variable. In addition, the amount of variance explained by individual and sibling relationship variables is greater for LOG-D scores than for LOG-C scores.

In conclusion, there are four particularly striking findings from the multivariate analysis. The first finding is the minimal number of correlations that were found between the independent variables with the dependent variable of current level of grief (LOG-C). These were far fewer than what was anticipated. Secondly, the analysis revealed relatively low magnitudes of correlation between the independent variables and current level of grief (LOG-C). These magnitudes were

much lower than expected. The third significant finding of the multivariate analysis is the statistically significant correlation that existed between current level of grief and overall communication with sibling. As indicated, this relationship was in the opposite direction than predicted for both scales of the level of grief. The opposite direction of this hypothesized relationship was also present in the bivariate analysis.

Finally, the finding of the strength of the correlation between the level of grief at death (LOG-D) and the current level of grief (LOG-C) is particularly worthy of consideration. This variable was the strongest predictor of respondents' current level of grief (LOG-C). Indeed, this variable explained more than one half of the variance of current level of grief. The following chapter provides an interpretation and explanation of these striking findings and their implications for the study as a whole, related to social work practice.

CHAPTER V

Discussion

Introduction

The purpose of this study was to explore the phenomenon of grief resolution following the death of an adult sibling. It sought to identify factors that facilitate or hinder the resolution of grief when an adult experiences the death of an adult sibling. The study was conducted to explore several gaps that were found in the literature. One such gap is the lack of empirical information on adult sibling loss. Although numerous studies explore the process of grief and subsequent factors related to the grief resolution, most focus on spousal bereavement, specifically wives experiencing the death of their husbands (Clayton, 1974; Cox & Ford, 1964; Parkes, 1964a, 1970, 1972a; Zisook, 1986).

Developing an understanding of the reactions to loss of an adult sibling is important. Eighty-five percent of all adults in the United States have a living adult sibling (Faldo, 1984). In this study, specific characteristics of the family of origin and current family were investigated to determine their correlation with the level of grief at the time of death and at the time of the survey. In addition, individual characteristics of the survivor and characteristics

of the sibling relationship were investigated to examine their relationship with the level of grief at the time of the survey. The remainder of this chapter provides a discussion of the findings, the limitations, and finally the implications that are relevant to the social work profession.

Interpretation of the Findings

The family variables of communication, cohesion and adaptability were explored in both the subjects' family of origin and their current family. None of the family characteristic variables were correlated with the level of grief at the time the study was conducted. Similarly, the demographic variables that were examined (age, income, education and gender) were not correlated with the level of grief at the time of the study.

One of the most striking findings of the present study is the strong correlation between the level of grief at the time of death (LOG-D) and the level of grief at the time of the survey. This positive correlation ($r = .69$, $p < .0001$) was the strongest and most consistent of all the bivariate relationships tested. The interpretation and implications of this important finding are provided in a later section of this chapter.

Only four of the sixteen hypotheses were supported in the current study. The few number of hypotheses that were supported and the relatively low correlations may be due to issues related to sampling and measurement. Each of these

issues will be fully discussed and how they may have contributed to the few number of hypotheses supported in this study. The hypotheses that were supported included three individual variables of church attendance, self esteem and individuation. The fourth hypothesis supported was the sibling relationship variable of geographical proximity. Each of these findings present some interesting interpretations worthy of discussion.

The consistent relationship between church attendance and level of current grief (LOG-C) merits some interpretation. As previously mentioned, the current sample consists largely of subjects who report regular church attendance and substantial levels of religious involvement. This religiosity in the sample seems to reflect the geographical area in which the study was conducted. However, it is also possible, that regular church attendees may have been more likely to respond to the survey than less frequent or nonattenders knowing that the researcher was employed by a church affiliated university with a high profile in the community.

Regardless of the reasons for the large number of respondents with high levels of church attendance, it is unlikely that the act of going to church is responsible for the low levels of grief displayed at both the time of death and at the time of the survey. Rather, two alternative explanations for this particular finding are worthy of consideration. The first explanation may be that responses to

this item identify the church as an informal support system that is established between members as a result of regular church attendance. Previous studies have repeatedly demonstrated that support systems in general, facilitate grief resolution (Klass, 1988; Parkes, 1972; Parkes & Weiss, 1983; Zisook & DeVaul, 1985). Similarly, other studies have indicated that one of the roles of organized religion is to provide support to fellow believers in times of crisis situations (Canda, 1989; Canda & Phaobtong, 1992; Lowenberg, 1988; Popenoe, 1991). Indeed, this informal support system created by regular church attendance and religious involvement may have enabled the subjects to cope better with the death of their adult sibling.

The second explanation, for the strong relationship between church attendance and the current level of grief (LOG-C) in the study may be reflecting the value of a religious belief in the concept of life after death. For many religions, the adoption of this belief provides a sense of meaning and purpose for living. Death of a significant other is not viewed as the end, but only a transition of something better to come. Death then, is viewed as a temporary separation, with the expectation that in the after life, loved ones will be reunited. Additionally, this belief may provide a sense of comfort and peace if pain and suffering were a part of the death event (Bengston, Cuellar, & Ragon, 1977; Leming & Dickinson, 1990; Toohy, 1976).

The correlational design of the present study and the lack of more precise measurement, preclude any definitive conclusions about the meaning of the relationship between church attendance and the level of grief at the time of the survey. It is possible that elements of both explanations may be in operation. Clearly, this is an area for continued research.

The relationship between problems with self esteem and the level of grief at the time of the survey provides additional insight into the grieving process in the death of an adult sibling. Subjects who had higher levels of self esteem had lower levels of grief at both the time of death and at the time of the survey. The direction of this relationship is consistent with previous studies that have explored this dimension of the grieving process (Dimond & Caserta, 1985; Johnson, Lund, & Dimond, 1986; Lund, Dimond, & Caserta, 1986; Pearlin et al., 1981). Self esteem has been demonstrated to be a factor in reducing the effects of life strains on feelings of stress (Antonovsky, 1981; Burns, 1979; McCrae, 1982; Pearlin & Schooler, 1978). Issues of self doubt and self worth do not "compete" with the emotional energy necessary to cope with the demands of the grieving response. A high level of self esteem may indeed serve as an effective tool in preventing a maladaptive response to the grief of this particular familial loss. Subjects that possess high levels of self esteem may have confidence in their ability to cope

with a personal crisis and may even see the experience as an opportunity for growth rather than personal defeat.

In addition to church attendance and self esteem, support was found for the relationship between level of grief and individuation. As previously stated, individuation is the degree to which a person is fused or differentiated from family members. The current study examined the level of differentiation related to subjects' parents. Subjects who reported higher levels of individuation reported lower levels of grief. Subjects who are "undifferentiated" appear to have higher levels of grief with the adult sibling. Bowen (1976) describes individuals who are undifferentiated (low individuation) as having less flexibility, less adaptability and more emotional dependence on others. By contrast, those who are differentiated (high individuation) display more flexibility, adaptability and cope better with life's stresses. These individuals are able to process and act on their own choosing without undue influence from parental authority (Bray, Williamson & Malone, 1984). The process of resolving the grief of a significant other involves a unique, individual response. The present study suggests that for subjects who are undifferentiated, the process of resolution is more difficult.

In addition to the findings of the relationship between level of grief and individual characteristics of siblings, the relationships between the sibling characteristic variables and

the level of grief at the time of the survey yield some fascinating findings. Of the six hypotheses tested to examine the relationship between sibling relationship variables and level of grief at the time of the survey, only the relationships between level of current grief and geographical proximity were supported. Subjects who live in close proximity to the deceased sibling report lower scores on the current level of grief than those subjects who live greater distances from one another. One explanation to this particular finding may be related to the quality of the sibling relationship. The accessibility and frequent contact with each other may contribute to a healthy emotional relationship. Previous studies on conjugal bereavement identify ambivalence and conflict as predictors of poor outcome of grief resolution (Parkes, 1985, 1987). The use of only one question concerning geographical proximity in the present study precludes any definitive explanation for the relationship between geographical proximity and the level of grief at the time of the survey. Future efforts need to explore the relationship between geographical distance and visitation patterns and how these in turn effect the quality of the relationship between siblings.

Surprisingly, one of the unsupported hypotheses, namely overall communication with sibling, revealed a relationship in the opposite direction than predicted. Previous studies have indicated that ambivalence and conflict in conjugal

bereavement are characteristics of the relationship which lead to maladaptive responses to grief (Parkes, 1972b; Parkes & Weiss, 1983; Raphael, 1983). In the present study it was hypothesized that low levels of communication between siblings may be evidence of ambivalence or conflict in the relationship. Thus, the level of grief would be higher for siblings with these attributes as evidenced by low levels of communication. However, subjects with higher levels of overall communication with their sibling reported higher levels of grief at both the time of death (LOG-D) and at the time of the survey.

The positive relationship between the overall communication with the deceased sibling and the level of grief at both the time of death and at the time the survey was completed merits further discussion. One explanation for this positive relationship between communication and level of grief is related to the assumption about the universality of grief in previous studies. As previously indicated, studies on grief have been primarily limited to conjugal bereavement in which an emotional attachment was present. It may be that the scores on the communication scale reflect the amount of emotional attachment or bonding between siblings. In other words, some respondents communicate with their sibling so infrequently and as a result fail to establish an emotional bond making grief nonexistent upon the death of their sibling. If indeed this is true, then grief may be the price paid by

respondents for their emotional closeness with their sibling. This finding supports the early works of Bowlby (1963, 1969) which views grief as the reaction to the physical and emotional bonding of the deceased. From this theoretical perspective, an emotional attachment or bond must exist to elicit a grief response upon the death of a significant other. Therefore, siblings who have high levels of communication may develop an emotional attachment to each other and because of this attachment, exhibit higher levels of grief upon the death of their sibling. This relationship between emotional attachment and grief is significantly different from the assumptions in conjugal bereavement. Consequently, the presence of an emotional attachment should not be assumed upon the death of an adult sibling.

If emotional attachment is an important dimension which has an impact on the sibling's level of grief then the highest levels of grief should be found with subjects who reported that they were "too close" to their sibling. Conversely, subjects who report that they were "not close enough" would have the lowest levels of grief. An examination of the scores on the level of grief at the time of the survey confirm these assertions.

Statistical analysis using one-way analysis of variance was used to test the assertion that higher levels of communication contribute to an emotional bond between siblings. Significant differences emerged between the three

groups. Significant group differences emerged between the groups of "just about right" and "too close" with the "not close enough" group. Subjects who reported their relationship with sibling as "not close enough" also reported the lowest scores on overall communication while subjects who reported "too close" had the highest levels of overall communication with their sibling. Subjects who reported the highest level of grief at both the time of death and at the time the survey was completed were those with the highest levels of emotional attachment and highest levels of overall communication with their sibling. These two dimensions of the adult sibling relationship are critical in understanding the level of grief with the death of an adult sibling.

It is evident that the relationship between the reported level of emotional closeness is significantly related to the level of grief at death (LOG-D) and at the time of the survey. However, it is useful to realize that the current study does not provide a linear measure of the level of emotional closeness, but rather the subjects' perception as to whether the emotional level with the sibling was "too close", "just about right" or "not close enough". In other words, it is possible that the emotional relationship with a sibling may be very distant but the respondent reports the relationship as "just about right". Future research should explore the complexity of the emotional bonding that can exist between siblings.

In summary, the reported level of emotional closeness and the overall level of communication both have an effect on the level of grief at the time of death and at the time the survey was conducted. Future efforts using a linear measure of emotional level of involvement would be most useful in providing additional insight concerning the relationship between emotional attachment of siblings and how this attachment effects the level of grief as well as its effect on the level of communication between adult siblings.

With regard to the relationship between overall communication with sibling, and the frequency of visitation, no statistically significant relationship was found. The number of visits do not appear to be a significant factor in determining the level of communication between siblings. Other forms of "communication" such as cards, letters, and phone calls were not considered in the present study. These contacts may very likely have an effect on both the level of communication and emotional closeness of siblings. Furthermore, the instrument in the present design does not delineate between the motivation and quality of the visitation that occur with siblings prior to their death. Previous research suggests that some siblings visit only for obligatory reasons, lacking emotional involvement or attachment in the relationship (Bank & Kahn, 1982; Mancini & Maxwell, 1990; Ross & Milgram, 1982). Future instruments need to take into account the complexity of emotional closeness and measures

that are sensitive to the concept.

Limitations of the Current Study

Some limitations of the current study have been identified. These limitations are in the area of design, sampling, and instrumentation. The following section provides a discussion of these specific areas.

The present study was conducted using a cross sectional purposive sample. Some distortion of response may have occurred in asking respondents to recall an event that happened as long as five years ago. If subjects had a favorable outcome, they may minimize the reported level of grief at death. Ideally, a longitudinal design with pre-test and post-test measures would have examined the level of grief over time. It should also be noted that subjects were self-selected by responding to an advertisement that appeared in three consecutive weeks in the local newspaper during the summer of 1991. This procedure resulted in a sample that was primarily female. The large percentage of female respondents for this study is consistent with previous studies which indicate that women are more likely to respond (Dimond, Lund, & Caserta, 1985, 1987). This sampling bias may be due to the difference in longevity between males and females or a reflection of traditional societal norms that more frequently sanction the emotional expression of thoughts and feelings of females.

A second issue related to sampling is the degree to which the population represents a non-clinical sample. The design called for a nonclinical sample and it was hoped that this data collection strategy would attract a broad diversity of subjects. Scores on both the level of grief at death and grief at the time of the survey would suggest a sample who report similar scores to the normed data on these two measures of grief. However, the degree to which the subjects represent a non-clinical sample is not known.

Finally, there is concern about the Texas Revised Inventory of Grief (TRIG) and its ability to measure the level of grief of this particular familial loss. As mentioned, the instrument has been developed and used to measure the level of grief in conjugal bereavement. The instrument assumes that respondents will display behaviors which serve as empirical indicators of the grief response. These behaviors are based on the assumption of at least a minimal emotional attachment to the deceased. While appropriate to the marital relationship, this assumption may be inappropriate for the measurement of adult sibling loss in which subjects may have little or no emotional attachment to their adult sibling. Therefore, the present instrument may not possess the level of sensitivity needed to determine the difference between grief that has been successfully resolved, from situations in which subjects lacked sufficient emotional attachment to elicit a grief response to the death of the sibling. Future research

should include the development of valid and reliable instruments that can measure this particular type of familial loss. Indeed, any future research with adult sibling loss should be viewed with extreme caution in the absence of such instruments. The interpretations that are made from this study must be done in light of these identified concerns. The following section contains a discussion of the implications for knowledge building and the implications for social work practice.

Implication of Findings

Implications for Development of Knowledge and Theory

As previously indicated, one of the most striking and consistent findings of the present study is the strong relationship between the level of grief at death (LOG-D) and the level of grief at the time of the survey (LOG-C). Subjects who had a high level of grief at the time of death (LOG-D) also report high levels of current grief. This strong relationship between the level of grief at death and at the time of the survey suggests the need for early assessment for this particular familial loss. Subjects who have high levels of grief at death may be at risk for a maladaptive response to the death of an adult sibling. Previous studies of conjugal bereavement report negative results of early intervention with randomly selected populations (Barrett, 1977; Gerber, Weiner & Battin, 1975; Polak, Egan & Vanderberg, 1975). However, other studies report effective preventive intervention in the

early bereavement period with high risk populations (Raphael, 1977; Silverman, 1969, 1975; Vachon, Lyall & Rogers, 1980). Early identification of high risk clients would allow for appropriate preventative strategies that may be utilized to minimize the possibility of a maladaptive response and maximize the likelihood of achieving a successful outcome of the sibling death. With early detection and intervention the risk for a maladaptive response may be reduced.

It is also important to note that the individual and sibling relationship variables were of greater utility in understanding the current level of grief than demographic or family variables. Future research efforts should explore the nature and quality of the adult sibling relationship. As previously indicated, the relationship between the level of grief and the level of emotional closeness is instrumental in understanding the process of grief of an adult sibling. Additional efforts need to focus on the specific ways in which this quality of emotional closensss develops and what factors sustain or promote its presence when experiencing the process of grief. The quality of the sibling relationship bares additional exploration as it affects the level of grief in the adult sibling.

Another major implication of the present study suggests the need to develop a valid and reliable instrument that can measure the level of grief of this particular familial loss. Any such instrument must be able to discern the course of

grief of an adult sibling as a related but separate phenomenon from conjugal bereavement. The ideal instrument should be able to measure the level of grief at different points in time in attempting to delineate the amount of resolution that has occurred. The development of such an instrument should be able to delineate between siblings who have successfully resolved the grief of their sibling from those who had an emotional attachment insufficient to elicit a grief response. As previously mentioned, there is concern that the instrument used in this study presupposes that an emotional attachment exists between siblings prior to the death. However, the findings of the present study suggest that some siblings lack the emotional attachment needed to elicit a grief response. For example, the lowest level of grief scores were reported by those subjects who reported the level of emotional closeness to the deceased sibling as "not close enough". Similarly, subjects who report the highest levels of grief at the time of death (LOG-D) and at the time of the survey (LOG-C) are subjects that describe the emotional relationship with the deceased sibling as "too close".

Implications for Social Work Practice and Policy Formation

The death of an adult sibling is a common phenomenon that will be experienced by 85% of the adult population. A majority of these successfully resolve their grief without professional intervention (Zisook & DeVaul, 1983). However, the full range of behaviors that lead to a maladaptive

response is not fully known. The findings of the present study may contribute to the understanding of this specific familial loss.

The current study provides an initial exploration of this unique family relationship and seeks to discover factors that may delineate between an adaptive and maladaptive outcome of grief. The knowledge derived from this study serves as a foundation in identifying the factors that promote an understanding of adults who may be at risk for a maladaptive grief response as a result of the death of a sibling. The high correlation between the level of grief at death (LOG-D) and the current level of grief (LOG-C) suggests the need for early assessment and prevention in identifying siblings that may be at risk for a maladaptive response.

The social work profession can benefit from new knowledge which can guide practitioners with a better understanding in promoting more effective service delivery to clients. This study contributes to that foundational base of understanding by examining the process of grief of adult sibling loss. While studies have examined death of a family member in the context of family systems framework, these efforts have focused on the loss of a parent or child (Bowlby-West, 1982; Gelcer, 1986; Rosen, 1990; Vess, 1985; Vollman, Ganzert, Pitcher & Williams, 1971). Other studies have focused on the loss of childhood siblings (Bank & Kahn, 1982; Cain, Fast & Erickson, 1964; McClowry, Davis, May, Kulenkamp & Martinson,

1987; Rabkin & Krell, 1979). Each family study recognizes the death of a family member as more than an individual response to loss, and examines the death as an event that can affect all family members by shifting boundaries, altering communication patterns and reallocating power and authority within the family system. However, no studies were found that examined the familial response to the death of an adult sibling in either the family of origin or the current family.

The present study provides little empirical support for many of the theoretical assumptions about families. The need to further explore this unique familial loss presents some interesting challenges in understanding the linkage between the death of an adult sibling within a family systems framework.

In addition to the importance of further exploration of the relationship between a family systems framework and the death of an adult sibling, attention must be given to individual and sibling relationship characteristics. Attributes of the individual and characteristics of the sibling relationship can affect the level of grief experienced by the survivor. Particular efforts should be made in the exploration of the complexities of the emotional bonding between siblings and how this attachment is developed and maintained over the life course.

In conclusion, the present study has explored family, individual, sibling relationship and demographic variables

that are related to the current level of grief (LOG-C). The present results have increased the level of understanding concerning the process of grief with this particular familial loss. Specifically, there is the need to develop an appropriate instrument that can assess the grief of this particular familial relationship. The instrument should identify adults who may be at risk for a maladaptive response to this particular loss. There is the need to further explore the complexity of the quality of the sibling relationship and its effect on the level of grief. Consideration should be given that for some siblings, the level of emotional attachment is insufficient to elicit a grief response to the death of their sibling. Further research efforts should continue to explore the nature of the unique adult sibling relationship and how siblings respond to the death of an adult brother or sister. Informed knowledge can provide direction in facilitating effective service which may identify "at risk" clients, resulting in their successful outcome of grief.

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Appendices

Appendices

Newspaper Advertisement

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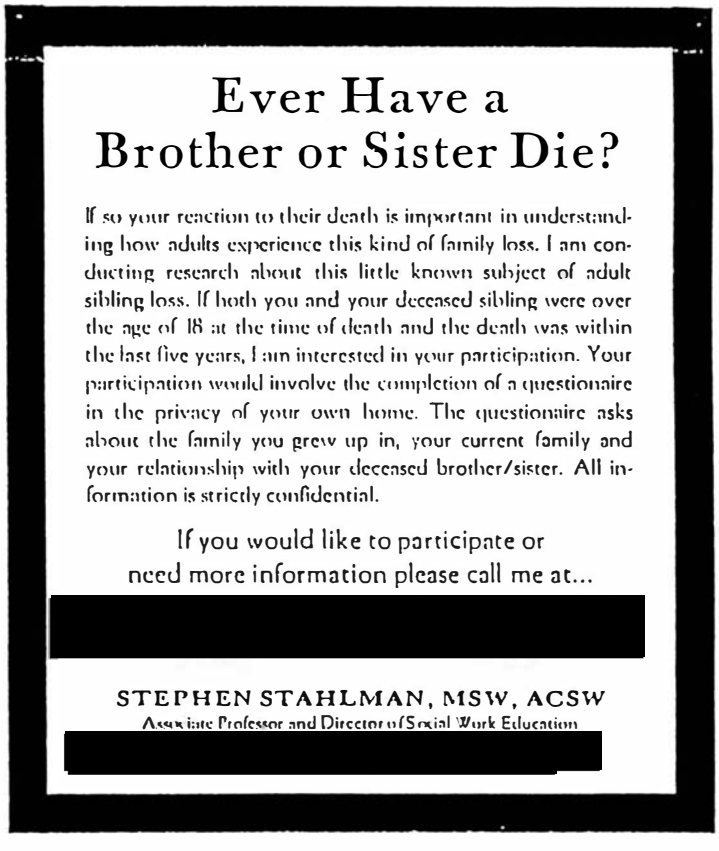

Ever Have a
Brother or Sister Die?

If so your reaction to their death is important in understanding how adults experience this kind of family loss. I am conducting research about this little known subject of adult sibling loss. If both you and your deceased sibling were over the age of 18 at the time of death and the death was within the last five years, I am interested in your participation. Your participation would involve the completion of a questionaire in the privacy of your own home. The questionaire asks about the family you grew up in, your current family and your relationship with your deceased brother/sister. All information is strictly confidential.

If you would like to participate or
need more information please call me at...

[redacted]

STEPHEN STAHLMAN, MSW, ACSW
Associate Professor and Director of Social Work Education
[redacted]

INDIANA WESLEYAN

ADULT SIBLING LOSS QUESTIONNAIRE

CONSENT FORM

INTRODUCTION: You are being asked to participate in a research study about adult sibling loss. The investigator is Stephen Stahlman, MSW, ACSW, a doctoral candidate in the School of Social Work at Virginia Commonwealth University.

BENEFITS: The knowledge that is gained from this study will assist in knowing how adults resolve the loss of a brother/sister. The knowledge will better equip helping professionals to develop programs to assist people in similar situations.

RISKS, INCONVENIENCES AND DISCOMFORTS: There is no anticipated risk as a result of your participation in this study. The study will take about 30-40 minutes to complete. It is important that you realize that Virginia Commonwealth University will not offer any compensation for any physical and/or mental injury resulting from your participation in the project.

COST OF PARTICIPATION: There is no cost for participation in this research study.

CONFIDENTIALITY OF RECORDS: Your participation in this study will be kept strictly confidential. All questionnaires will receive an anonymous identification number and no names will be utilized at any point in the study. Any information you provide will remain anonymous as data from the questionnaire will be coded and transposed to a computer format. All subsequent use of the data will be in a form which makes recognition of your name impossible.

WITHDRAWAL: You are not obligated to participate in this study and may withdraw from participation at any point in the project.

Stephen Stahlman, MSW, ASCW
Associate Professor and Director of Social Work Education
Indiana Wesleyan University

[redacted]

I have read and understand the statements above, and give my consent to participate in this study.

Subject's Signature _____ Date _____

Subject's Name (Please Print) _____

INDIANA
WESLEYAN

Dear

As a person who has experienced the death of a brother/sister within the last five years I appreciate your willingness to participate in this study. I am a student in the doctoral program at Virginia Commonwealth University and currently on the faculty at Indiana Wesleyan University.

Your involvement as a participant in this study will be to complete various questions about the family you grew up with, your current family and the relationship to your deceased brother/sister. The information gathered from the questionnaire will be kept in strict confidence and your specific responses will remain anonymous. It should take approximately 30-40 minutes to complete. Your participation is totally voluntary.

The results of these findings will contribute to the understanding of adult sibling loss and how brothers and sisters resolve the grief of this familial relationship. By learning more about this specific kind of loss, professionals can better design programs that assist people that are experiencing similar losses.

If you would like to discuss any part of the questionnaire please feel free to give me a call. Thank you again for your willingness to participate in this important study on adult sibling loss.

Please return your signed consent form and the questionnaire in the self addressed stamped envelope no later than August 23, 1991. Thanks again for your assistance.

Sincerely,

Stephen Stahlman, MSW, ACSW
Associate Professor and
Director of Social Work Education
Indiana Wesleyan University
Marion, IN 46953

[redacted]

INDIANA
WESLEYAN
University

July 5, 1991

Dear

Recently a questionnaire was sent to you requesting information about the death of your brother/sister. If you have already returned the questionnaire thank you for your participation. If you have not returned your questionnaire would you please do so today? I have enclosed another questionnaire for your convenience. It is very important that your response be included in the study to better understand adult sibling loss. If you have any questions, please give me a call at [redacted]

Sincerely,

Stephen Stahlman, MSW, ACSW
Associate Professor and
Director of Social Work Education
Indiana Wesleyan University

4201 South Washington ▲ Marion, Indiana 46953-4974 ▲ [redacted]

APPENDIX E

Adult Sibling Loss Questionnaire

The following questionnaire is being conducted to better understand the process of grief resolution related to adult sibling loss. Please complete all the questions. Feel free to make additional comments on any of the questions.

I appreciate your willingness to participate in this study.

Directions:

THE FOLLOWING QUESTIONS ASK ABOUT THE COMMUNICATION IN YOUR FAMILY OF ORIGIN OR THE FAMILY YOU GREW UP WITH. IF YOU WERE NOT RAISED BY YOUR BIRTH PARENT(S), PLEASE RESPOND TO THE QUESTIONS IN TERMS OF THE PERSON(S) WHO PRIMARILY RAISED YOU AND THE OTHER PERSONS (BROTHERS, SISTERS, ETC.) WHOM YOU CONSIDER TO BE YOUR FAMILY.

FOR THE FIRST SET OF QUESTIONS PLEASE CIRCLE THE NUMBER THAT BEST DESCRIBES YOUR FAMILY WHILE GROWING UP. SELECT ONLY ONE RESPONSE FOR EACH QUESTION.

	STRONGLY DISAGREE		NEITHER AGREE OR DISAGREE		STRONGLY AGREE
1. I was satisfied with how my parents and I talked together.	1	2	3	4	5
2. I found it easy to discuss problems with my parents . . .	1	2	3	4	5
3. My parents tried to understand my point of view	1	2	3	4	5
4. It was easy for me to express all my true feelings to my parents.	1	2	3	4	5
5. My parents were always good listeners. . . .	1	2	3	4	5
6. If I were in trouble I could tell my parents.	1	2	3	4	5
7. I openly showed affection to my parents.	1	2	3	4	5
8. When I asked questions I got honest answers from my parents.	1	2	3	4	5

	STRONGLY DISAGREE		NEITHER AGREE OR DISAGREE		STRONGLY AGREE
9. I could discuss my beliefs with my parents.	1	2	3	4	5
10. My parents could tell how I was feeling without asking	1	2	3	4	5

Directions:

THE FOLLOWING QUESTIONS ASK ABOUT THE COMMUNICATION BETWEEN YOU AND YOUR SPOUSE. PLEASE CIRCLE THE NUMBER THAT BEST DESCRIBES YOUR PRESENT SITUATION. SELECT ONLY ONE RESPONSE FOR EACH QUESTION.

	STRONGLY DISAGREE		NEITHER AGREE OR DISAGREE		STRONGLY AGREE
1. I am satisfied with how my spouse and I talk together . .	1	2	3	4	5
2. I find it easy to discuss problems with my spouse.	1	2	3	4	5
3. My spouse tries to understand my point of view . .	1	2	3	4	5
4. It is easy for me to express all my true feelings to my spouse	1	2	3	4	5
5. My spouse is always a good listener.	1	2	3	4	5
6. If I were in trouble I could tell my spouse. .	1	2	3	4	5
7. I openly show affection to my spouse.	1	2	3	4	5

	STRONGLY DISAGREE		NEITHER AGREE OR DISAGREE		STRONGLY AGREE
8. When I ask questions I get honest answers from my spouse. .	1	2	3	4	5
9. I can discuss my beliefs with my spouse.	1	2	3	4	5
10. My spouse can tell how I am feeling without asking. .	1	2	3	4	5

Directions

THE NEXT TWO SETS OF QUESTIONS ASK ABOUT YOUR COMMUNICATION WITH YOUR SIBLING AT TWO DIFFERENT POINTS IN TIME. FOR THE FIRST SET OF QUESTIONS, PLEASE CIRCLE THE NUMBER THAT BEST DESCRIBES YOUR OVERALL COMMUNICATION WITH YOUR DECEASED SIBLING. SELECT ONLY ONE RESPONSE FOR EACH QUESTION.

	STRONGLY DISAGREE		NEITHER AGREE OR DISAGREE		STRONGLY AGREE
1. I was satisfied with how my sibling and I talked together .	1	2	3	4	5
2. I found it easy to discuss problems with my sibling	1	2	3	4	5
3. My sibling tried to understand my point of view . .	1	2	3	4	5
4. It was easy for me to express all my true feelings to my sibling. . . .	1	2	3	4	5
5. My sibling was always a good listener.	1	2	3	4	5
6. If I were in trouble I could tell my sibling .	1	2	3	4	5

	STRONGLY DISAGREE		NEITHER AGREE OR DISAGREE		STRONGLY AGREE
7. I openly showed affection to my sibling	1	2	3	4	5
8. When I asked questions I got honest answers from my sibling .	1	2	3	4	5
9. I could discuss my beliefs with my sibling	1	2	3	4	5
10. My sibling could tell how I was feeling without asking. .	1	2	3	4	5

Directions

NOW ANSWER THE FOLLOWING QUESTIONS ABOUT THE COMMUNICATION BETWEEN YOU AND YOUR DECEASED BROTHER/SISTER AT THE TIME OF THEIR DEATH. SELECT ONLY ONE RESPONSE FOR EACH QUESTION. PLEASE CIRCLE THE NUMBER.

	STRONGLY DISAGREE		NEITHER AGREE OR DISAGREE		STRONGLY AGREE
1. I was satisfied with how my sibling and I talked together .	1	2	3	4	5
2. I found it easy to discuss problems with my sibling	1	2	3	4	5
3. My sibling tried to understand my point of view . .	1	2	3	4	5
4. It was easy for me to express all my true feelings to my sibling. . . .	1	2	3	4	5
5. My sibling was always a good listener.	1	2	3	4	5

	STRONGLY DISAGREE	DISAGREE	NEITHER AGREE OR DISAGREE	AGREE	STRONGLY AGREE
6. If I were in trouble I could tell my sibling .	1	2	3	4	5
7. I openly showed affection to my sibling	1	2	3	4	5
8. When I asked questions I got honest answers from my sibling .	1	2	3	4	5
9. I could discuss my beliefs with my sibling	1	2	3	4	5
10. My sibling could tell how I was feeling without asking. .	1	2	3	4	5

Directions:

THINK BACK TO THE FIRST THREE MONTHS AFTER YOUR BROTHER/SISTER DIED AND ANSWER ALL OF THESE ITEMS ABOUT YOUR FEELINGS AND ACTIONS AT THAT TIME BY INDICATING WHETHER EACH ITEM IS COMPLETELY TRUE, MOSTLY TRUE, BOTH TRUE AND FALSE, MOSTLY FALSE, OR COMPLETELY FALSE AS IT APPLIED TO YOU AFTER THIS PERSON DIED. CIRCLE THE BEST RESPONSE.

	COMPL. TRUE	MOSTLY TRUE	TRUE & FALSE	MOSTLY FALSE	COMPL. FALSE
1. After this person died I found it hard to get along with certain people	0	1	2	3	4
2. I found it hard to work well after this person died	0	1	2	3	4
3. After this person's death I lost interest in my family, friends, and outside activities . . .	0	1	2	3	4

	COMPL. TRUE	MOSTLY TRUE	TRUE & FALSE	MOSTLY FALSE	COMPL. FALSE
4. I felt a need to do things that the deceased had wanted to do . .	0	1	2	3	4
5. I was unusually irritable after this person died	0	1	2	3	4
6. I couldn't keep up with my normal activities for the first 3 months after this person died	0	1	2	3	4
7. I was angry that the person who died left me . .	0	1	2	3	4
8. I found it hard to sleep after this person died	0	1	2	3	4

NOW ANSWER ALL OF THE FOLLOWING ITEMS BY CIRCLING HOW YOU PRESENTLY FEEL ABOUT YOUR BROTHER'S/SISTER'S DEATH. DO NOT LOOK BACK AT PART I.

	COMPL. TRUE	MOSTLY TRUE	TRUE & FALSE	MOSTLY FALSE	COMPL. FALSE
1. I still cry when I think of the person who died	0	1	2	3	4
2. I still get upset when I think about the person who died. . . .	0	1	2	3	4
3. I cannot accept this person's death	0	1	2	3	4
4. Sometimes I very much miss the person who died	0	1	2	3	4

	COMPL. TRUE	MOSTLY TRUE	TRUE & FALSE	MOSTLY FALSE	COMPL. FALSE
5. Even now it's painful to recall memories of the person who died	0	1	2	3	4
6. I am preoccupied with thoughts (often think) about the person who died.	0	1	2	3	4
7. I hide my tears when I think about the person who died. . . .	0	1	2	3	4
8. No one will ever take the place in my life of the person who died	0	1	2	3	4
9. I can't avoid thinking about the person who died.	0	1	2	3	4
10. I feel it's unfair that this person died . .	0	1	2	3	4
11. Things and people around me still remind me of the person who died	0	1	2	3	4
12. I am unable to accept the death of the person who died. . . .	0	1	2	3	4
13. At times I still feel the need to cry for the person who died. . . .	0	1	2	3	4

THE FOLLOWING QUESTIONS HAVE TO DO WITH YOUR REMEMBRANCES ABOUT YOUR FAMILY OF ORIGIN, OR THE FAMILY YOU GREW UP WITH. IF YOU WERE NOT RAISED BY YOUR BIRTH PARENT(S), PLEASE RESPOND TO THE QUESTIONS IN TERMS OF THE PERSON(S) WHO PRIMARILY REARED YOU AND THE OTHER PERSONS (BROTHERS, SISTER, ETC.) WHOM YOU CONSIDER TO BE YOUR FAMILY.

PLEASE TAKE A FEW MINUTES RIGHT NOW TO REMEMBER YOUR GROWING UP YEARS AND LIFE WITH YOUR FAMILY DURING THAT TIME (FROM EARLY CHILDHOOD TO WHEN YOU WERE ABOUT 20 YEARS OLD). YOU MAY FIND THAT SOME OF THE STATEMENTS FIT YOUR FAMILY DURING ONE PERIOD OF YOUR GROWING UP YEARS MORE ACCURATELY THAN AT OTHER TIMES. IN SUCH AN INSTANCE, PLEASE DECIDE WHAT IS YOUR STRONGEST OVERALL IMPRESSION OF YOUR FAMILY DURING MOST OF YOUR CHILDHOOD AND ANSWER ACCORDINGLY. NOW, BASED ON YOUR BEST RECOLLECTIONS, ANSWER EACH QUESTION FOLLOWING THE GIVEN DIRECTIONS.

Directions:

FOR THE FIRST SET OF QUESTIONS, PLEASE CIRCLE THE NUMBER THAT BEST DESCRIBES YOUR FAMILY WHILE YOU WERE GROWING UP. HOW OFTEN DID THESE EVENTS/FEELINGS OCCUR WITHIN YOUR FAMILY? (ONLY CHOOSE ONE NUMBER FOR EACH QUESTION).

		NOT OFTEN ENOUGH		JUST ABOUT RIGHT		TOO OFTEN
1.	Family members asked each other for help.	1	2	3	4	5
2.	In solving problems, the children's suggestions were followed.	1	2	3	4	5
3.	We approved of each other's friends	1	2	3	4	5
4.	Children had a say in their discipline	1	2	3	4	5
5.	We liked to do things with just our immediate family .	1	2	3	4	5
6.	Different persons acted as leaders in our family . .	1	2	3	4	5
7.	Family members felt closer to other family members than to people outside the family	1	2	3	4	5
8.	Our family used to change its way of handling tasks .	1	2	3	4	5
9.	Family members liked to spend free time with each other.	1	2	3	4	5
10.	Parent(s) and children discussed punishment together.	1	2	3	4	5

		NOT OFTEN ENOUGH		JUST ABOUT RIGHT		TOO OFTEN
11.	Family members felt very close to each other . . .	1	2	3	4	5
12.	The children made the decisions in our family. .	1	2	3	4	5
13.	When our family got together for activities, everybody was present . .	1	2	3	4	5
14.	Rules changed in my family	1	2	3	4	5
15.	We easily thought of things to do together as a family.	1	2	3	4	5
16.	We shifted household responsibilities from person to person	1	2	3	4	5
17.	Family members consulted other family members on their decisions	1	2	3	4	5
18.	It was hard to identify the leader(s) in our family	1	2	3	4	5
19.	Family togetherness was very important.	1	2	3	4	5
20.	It was hard to tell who did which household chores	1	2	3	4	5

Directions

NOW READ EACH STATEMENT BELOW AND DECIDE TO WHAT DEGREE EACH DESCRIBES YOUR CURRENT FAMILY. CIRCLE THE MOST APPROPRIATE RESPONSE. ONLY CHOOSE ONE NUMBER FOR EACH QUESTION.

		NOT OFTEN ENOUGH		JUST ABOUT RIGHT		TOO OFTEN
1.	Family members ask each other for help.	1	2	3	4	5
2.	In solving problems, the children's suggestions are followed.	1	2	3	4	5

		NOT OFTEN ENOUGH		JUST ABOUT RIGHT		TOO OFTEN
3.	We approve of each other's friends	1	2	3	4	5
4.	Children have a say in their discipline	1	2	3	4	5
5.	We like to do things with just our immediate family .	1	2	3	4	5
6.	Different persons act as leaders in our family . .	1	2	3	4	5
7.	Family members feel closer to other family members than to people outside the family	1	2	3	4	5
8.	Our family changes its way of handling tasks. . . .	1	2	3	4	5
9.	Family members like to spend free time with each other.	1	2	3	4	5
10.	Parent(s) and children discuss punishment together.	1	2	3	4	5
11.	Family members feel very close to each other . . .	1	2	3	4	5
12.	The children make the decisions in our family. .	1	2	3	4	5
13.	When my family is together for activities, everybody is present	1	2	3	4	5
14.	Rules change in my family .	1	2	3	4	5
15.	We easily think of things to do together as a family.	1	2	3	4	5
16.	We shift household responsibilities from person to person	1	2	3	4	5
17.	Family members consult other family members on their decisions	1	2	3	4	5

	NOT OFTEN ENOUGH		JUST ABOUT RIGHT		TOO OFTEN
18. It is hard to identify the leader(s) in our family. .	1	2	3	4	5
19. Family togetherness is very important	1	2	3	4	5
20. It is hard to tell who does which household chores . .	1	2	3	4	5

THE FOLLOWING QUESTIONS ASK ABOUT YOUR CURRENT RELATIONSHIPS WITH YOUR PARENTS. PLEASE SELECT THE ANSWERS THAT REFLECT YOU CURRENT RELATIONSHIPS WITH THESE PEOPLE.

YOU MAY FIND THAT SOME OF THE STATEMENTS FIT YOUR RELATIONSHIP WITH ONE PARENT MORE ACCURATELY THAN THEY FIT THE OTHER PARENT. IN SUCH AN INSTANCE, PLEASE DECIDE WHAT IS YOUR STRONGEST OVERALL IMPRESSION OF YOUR RELATIONSHIP WITH YOUR PARENTS AND ANSWER ACCORDINGLY. REMEMBER, THERE ARE NO RIGHT OR WRONG ANSWERS.

Directions:

USE THE FOLLOWING SCALE TO ANSWER QUESTION 1 (Circle the number).

	1 TOTALLY RESPONSIBLE	2 VERY	3 MODERATELY RESPONSIBLE	4 A LITTLE	5 NOT AT ALL RESPONSIBLE
1. When one of your parents is having a distressing problem, to what extent do you feel personally responsible to provide a solution to the problem?	1	2	3	4	5

Use the following scale to answer questions 2 - 8 (Circle the number).

	1 Strongly Agree	2 Agree	3 Neutral	4 Disagree	5 Strongly Disagree
2. My parents do things that embarass me.	1	2	3	4	5

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3. My present day problems would be fewer or less severe if my parents had acted or behaved differently.	1	2	3	4	5
4. My parents frequently try to change some aspect of my personality.	1	2	3	4	5
5. I sometimes wonder how much my parents really love me.	1	2	3	4	5
6. I am usually able to disagree with my parents without losing my temper.	1	2	3	4	5
7. I often get so emotional with my parents that I cannot think straight.	1	2	3	4	5
8. My parents say one thing to me and really mean another.	1	2	3	4	5

FOR THE FOLLOWING QUESTIONS, CIRCLE THE NUMBER THAT BEST DESCRIBES HOW YOU SEE YOURSELF CURRENTLY. (CHOOSE ONLY ONE NUMBER FOR EACH QUESTION).

	RARELY OR NONE OF THE TIME	A LITTLE OF THE TIME	SOME OF THE TIME	A GOOD PART OF THE TIME	MOST ALL OF THE TIME
1. I feel that people would not like me if they really knew me well	1	2	3	4	5
2. I feel that others get along much better than I do . .	1	2	3	4	5
3. I feel that I am a beautiful person . .	1	2	3	4	5

	RARELY OR NONE OF THE TIME	A LITTLE OF THE TIME	SOME OF THE TIME	A GOOD PART OF THE TIME	MOST ALL OF THE TIME
4. When I am with other people I feel they are glad I am with them	1	2	3	4	5
5. I feel that people really like to talk with me.	1	2	3	4	5
6. I feel that I am a very competent person	1	2	3	4	5
7. I think I make a good impression on others	1	2	3	4	5
8. I feel that I need more self-confidence	1	2	3	4	5
9. When I am with strangers I am very nervous.	1	2	3	4	5
10. I think that I am a dull person.	1	2	3	4	5
11. I feel ugly.	1	2	3	4	5
12. I feel that others have more fun than I do	1	2	3	4	5
13. I feel that I bore people	1	2	3	4	5
14. I think my friends find me interesting.	1	2	3	4	5
15. I think I have a good sense of humor.	1	2	3	4	5
16. I feel very self-conscious when I am with strangers . . .	1	2	3	4	5
17. I feel that if I could be more like other people I would have it made	1	2	3	4	5

	RARELY OR NONE OF THE TIME	A LITTLE OF THE TIME	SOME OF THE TIME	A GOOD PART OF THE TIME	MOST ALL OF THE TIME
18. I feel that people have a good time when they are with me . .	1	2	3	4	5
19. I feel like a wallflower when I go out. . . .	1	2	3	4	5
20. I feel I get pushed around more than others	1	2	3	4	5
21. I think I am a rather nice person.	1	2	3	4	5
22. I feel that people really like me very much	1	2	3	4	5
23. I feel that I am a likable person. . .	1	2	3	4	5
24. I am afraid I will appear foolish to others	1	2	3	4	5
25. My friends think very highly of me	1	2	3	4	5

Directions:

PLEASE ANSWER THE FOLLOWING QUESTIONS BY FILLING IN THE BLANK SPACES OR CIRCLING THE APPROPRIATE RESPONSE.

1. What is your present age? _____ (in years)

2. What is your sex? (circle number)

   1. FEMALE
   2. MALE

3. What is your present marital status? (circle number)

   1. NEVER MARRIED
   2. MARRIED
   3. SEPARATED/DIVORCED
   4. WIDOWED

4. Has there been a change in your marital status since the death of your brother/sister? (circle number)

   1. YES (Specify_____)
   2. NO

5. How many years of education have you completed? (circle number)

0 1 2 3 4 5 6	7 8 9	10 11 12	13 14 15 16	17 18 19 20
ELEMENTARY SCHOOL	JR. HIGH SCHOOL	HIGH SCHOOL	COLLEGE	GRADUATE SCHOOL

6. What was your approximate current family income from all sources, before taxes, in 1990? (Circle number)

   1. LESS THAN 15,000
   2. 15,000 TO 24,999
   3. 25,000 TO 34,999
   4. 35,000 TO 44,999
   5. OVER 45,000

7. What is your religious preference? (Circle number)

   1. PROTESTANT (Specify_____)
   2. CATHOLIC
   3. JEWISH
   4. OTHER (Specify_____)
   5. NONE

8. Indicate your present relationship to organized religion or a spiritual organization. Circle the <u>one</u> number that is most appropriate.

   1. ACTIVE PARTICIPATION, HIGH LEVEL OF INVOLVEMENT
   2. REGULAR PARTICIPATION, SOME INVOLVEMENT
   3. IDENTIFICATION WITH RELIGION OR SPIRITUAL GROUP, VERY LIMITED OR NO INVOLVEMENT
   4. NO IDENTIFICATION, PARTICIPATION OR INVOLVEMENT WITH RELIGION OR SPIRITUAL GROUP
   5. DISDAIN AND NEGATIVE REACTION TO RELIGION OR SPIRITUAL TRADITION

9. How many times do you attend a religious or spiritual service during a typical month?

   _____ times

10. What is your race?

    1. BLACK
    2. WHITE 3. OTHER (specify _____)

THE FOLLOWING QUESTIONS ASK INFORMATION CONCERNING THE DEATH OF YOUR ADULT SIBLING. PLEASE FILL IN THE BLANK SPACES OR CIRCLE THE APPROPRIATE RESPONSE. IF YOU HAVE EXPERIENCED THE DEATH OF MORE THAN ONE SIBLING, PLEASE RESPOND TO THE MOST RECENT DEATH.

11. My sibling that died was. (Circle number)

    1. MALE
    2. FEMALE

12. What was the age of your deceased brother/sister when he/she died? _____years

13. What was your age at the time of your brother's/sister's death? _____years

14. How long ago did your brother/sister die?
    _____years _____months

15. What was the cause of your sibling's death? (Circle number)

    1. DISEASE OR ILLNESS
    2. ACCIDENT
    3. MURDER
    4. SUICIDE
    5. OTHER, PLEASE SPECIFY _____

16. What is the length of time in which you knew your sibling was going to die? (Circle number)

    1. NO ADVANCED WARNING
    2. A FEW DAYS
    3. A FEW WEEKS
    4. A FEW MONTHS
    5. A YEAR OR MORE

17. At the time of your brother's/sister's death, how many miles did you live from him/her? (circle number)

    1. LESS THAN 50 MILES
    2. 51 TO 100 MILES
    3. 101 TO 300 MILES
    4. OVER 300 MILES

18. During the year preceding your brother's/sister's death, how often did you visit him/her? (circle number)

    1. ABOUT ONCE A WEEK
    2. ABOUT ONCE A MONTH
    3. TWO TO THREE TIMES
    4. ONCE
    5. NOT AT ALL

19. Before you knew your brother/sister was going to die, how would you describe your emotional closeness to him/her? (circle number)

1. TOO CLOSE
2. JUST ABOUT RIGHT
3. NOT CLOSE ENOUGH

20. Was your deceased sibling older or younger than yourself? (circle number)

1. OLDER HOW MANY YEARS? _____
2. YOUNGER HOW MANY YEARS? _____

21. Have you experienced the death of another significant other within the last five years?

1. YES_____ If yes, what was the nature of the relationship?

1. BROTHER/SISTER
2. MOTHER
3. FATHER
4. SPOUSE
5. CHILD
6. OTHER RELATIVE
7. FRIEND

2. NO_____

Thank you for your participation. Please return in the self addressed stamped envelope to:

[redacted]

Vita