Beliefs of Preventability and Unpreventability Regarding Circumstances of Death In a Disaster Bereaved Sample

by

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CHAPTER I:

Introduction

The loss of a significant other with its subsequent grief response is a universal experience (Weisman, 1973). In the last three decades much attention has been focused on loss. The primary emphasis has been on the exploration and description of symptoms of grief (Bowlby & Parkes, 1970; Jacobs & Douglas, 1979; Kubler-Ross, 1969; Lindemann, 1944). Recently, more attention has been given to the dynamics of both short-term and long-term resolution of grief and bereavement. For example, examination of the closeness or centrality of the relationship between bereaved and deceased persons and subsequent responses because of close ties has been undertaken (Bugen, 1977; Kirschling, 1984; Murphy, 1982a; Parkes, 1975a; Singh & Raphael, 1981). In conjunction with relationship centrality, beliefs of preventability or non-preventability of the circumstances of a death have been identified by Bugen (1977) as possible significant factors that determine the duration of the grief response.

This study of secondary data analysis examined beliefs of preventability and a lost central relationship in relation to the grief response using data obtained by Murphy (1982a) from a study of persons bereaved as a result of a natural disaster. The primary purpose of the study was to partially test a theoretical

proposition written by Bugen (1977): Grief responses of bereaved persons are affected primarily by two factors - the centrality, or degree of closeness or importance of the relationship between the deceased and the bereaved, and beliefs about whether or not the death could have been prevented. Results of these analyses have application for increased understanding of the grief response to better plan, implement, and evaluate intervention strategies.

Bugen (1977) suggested that the greater the importance (centrality) of the deceased person in the bereaved individual's life and the stronger the belief of preventability, the longer and more intense the grief response. According to Bugen, these two concepts interact and produce one of four predictable grief states (see Table 1), which will be addressed later in this paper. Bugen (1977) stated that the belief of preventability is the single most influential factor contributing to the prolongation of the human grief response. Bugen did not, however, suggest how the outcomes of "mild", "intense", "brief", and "prolonged" responses might best be operationalized for purposes of empirical testing.

Significance to Nursing

Nurses in all clinical practice settings come in contact with those who have suffered the loss of a significant other. They are often the health professional most willing, available, and capable to assess and intervene with bereaved persons. It is necessary to identify which persons may be in need of intervention in order to

Table 1

Interaction of Closeness of Relationship and Perception of Preventability as Predictors of Grief

	Preventable	Unpreventable
Central Relationship	Intense and Prolonged	Intense and Brief
Peripheral Relationship	Mild and Prolonged	Mild and Brief

(Bugen, 1977)

reduce psychiatric morbidity resulting from abnormal, delayed, or unresolved grief responses. These responses can occur as a result of the death per se, but more likely occur in conjunction with a complex set of factors such as, other concurrent stresses, timing in the life cycle, and so forth.

The mental health nurse in advanced practice needs to be well prepared to identify, assess, and institute intervention with those suffering from atypical grief reactions. Widespread practice in this arena by mental health nurses has been limited historically by issues of accessibility and reimbursement. The American Nurses Association Social Policy Statement (1980) and the Standards of Practice for Psychiatric and Mental Health Nursing Practice (1982) have helped to reduce these limitations and enhance the scope of practice of the mental health nurse in advanced practice.

Review of the Literature

Current literature has attempted to document the universality, predictability, intensity and resolution of the grief response following the death of a significant other. This review examined literature which described the grief process and explored factors thought to affect grieving. The duration and intensity of typical and atypical grief responses were addressed as well as factors affecting the grief response, such as the

nature of the death event, one's personal and social resources, and finally, issues associated with measurement of the grief response.

Duration and Intensity of Grief

The study of the duration and/or resolution of grief responses has been approached primarily from one perspective, noting behaviors occurring at various post-death time periods. For example, Parkes (1975b) found a significant inverse statistical relationship between poor bereavement outcome at one year and the expression of severe distress, continuous yearning, anger and/or self-reproach and welcoming of one's own death at six to eight weeks post-bereavement for widows and widowers under 45 years of age. Similarly, a positive relationship between depression at one month bereavement and the presence of depression at 13 months bereavement was found in widows whose mean age was 61 years (Bornstein, Clayton, Halikos, Maurice, & Robins, 1973). Glick, Weiss, and Parkes (1974) noted that failure to move toward recovery within the first year of bereavement was indicative of difficulty thereafter in terms of adaptive bereavement outcomes. Schwab, Chalmers, Conroy, Farris, and Markush (1975) conducted a study in which it was found that 50% of the respondents displayed periodic intense grief reactions more than a year after their loss. Rees and Lutkins (1967) suggested that conjugal and parental bereavement are the most severe, and that even after more

than one year, the assumption that acute grief has been resolved is not warranted. While clinically it appears that the manifestations of grief decrease over time, it has been postulated that adaptation to the death of a significant other may take two to three years or perhaps even a lifetime, indicating the uniqueness of human response to loss (Barrett & Schneweis, 1980-81; Glick et al., 1974; Murphy, 1982b; Silverman & Cooperband, 1975).

Studies that have focused on identification of symptoms at various times in the course of bereavement have made three important clinical and theoretical contributions toward understanding movement through the bereavement transition. First, early acute distress may be an important predictor of prolonged distress; second, there is no universal response to the death of an important other; and finally, recovery appears to be subjectively determined by the bereaved, and reportedly takes longer than either public or professional caregivers have thought. The majority of past studies have not evaluated the perceived closeness of the relationship lost; therefore, data on the continuum of central to peripheral relationship loss and its effect on the duration and intensity of grieving has not been determined.

Typical Grief

Grief is believed to be a normal response stemming from both

the loss of a significant person and the disintegration of social relationships that involved the deceased person (Averill, 1968; Parkes, 1972; Silverman & Cooperband, 1975). Thus, a social vacuum may be created by the death. For example, when a spouse dies, friendships with other marital couples have been shown to decrease (Hauser, 1983; Lopata, 1973). The extent of this vacuum depends upon how deeply engaged the deceased has been in the life of the society and its groups (Blauner, 1966). Lindemann (1944) defined grief as a reaction to sudden cessation of social interaction and considered it a definite syndrome with somatic and psychological symptomatology. Lindemann's observations indicated that somatic symptoms were universally experienced in waves and consisted of sighing respirations, lack of strength, exhaustion, and digestive symptoms. The psychological symptoms noted by Lindemann were a sense of unreality, emotional distancing, preoccupation with the image of the deceased, feelings of guilt, irritability and anger toward others, and cessation of usual patterns of conduct. Kubler-Ross (1969) conceptualized grief as a response to the loss of a significant aspect of one's environment (i.e., personal health of a significant other).

Numerous stage/phase models of grief responses based on clinical observation have been proposed. Bowlby (1961) identified three stages in the grieving process: protest, despair and denial. Kubler-Ross (1969) proposed a five-stage model of "adjustment" including denial, anger, bargaining, depression, and acceptance.

Kavanaugh (1972) recognized seven phases in the process: shock; disorganization; volatile emotions; guilt; loss and loneliness; relief; and re-establishment. Parkes (1975a) has suggested that grieving persons experience alarm, search, mitigation, anger, and guilt with the eventual outcome a gain of a new role identity.

While definitive identification and agreement on the stages or phases of grieving and any order of occurance has not been established, the paradigms have proved useful in promoting widespread recognition and awareness of the entity of the grief response. However, some conceptual weaknesses regarding stage theories in general are noteworthy: a) the lack of distinction between stages, b) the fact that stages may not occur in the sequential order specified or may not occur at all, and c) the relative duration of any one stage is idiosyncratically explained and therefore makes recovery time unpredictable (Bugen, 1977). Taken together, these factors make empirical testing and clinical application problematic.

The stage theories have not been empirically established or tested. This is a necessary endeavor if widespread credibility and application are to be forthcoming.

Atypical Grief

Unsuccessful emotional/psychological integration of significant loss into one's life can result in an atypical, that is, an unresolved, and pathogenic grief response. The failure of

adequate resolution of the normal grief process has been demonstrated to result in increased morbidity and mortality in bereaved populations (Raphael, 1977; Vachon, 1976; Weiner, Gerber, Bottin, & Arkin, 1975).

Atypical or abnormal grief responses seem to differ in degree, rather than in kind, from usual grief. For example, difficulty in sleeping, or the ability to concentrate, may be prolonged or especially pronounced for someone experiencing atypical grief. An important contribution of Lindemann (1944) was the specification of abnormal grief reactions. The two major classes of distorted (morbid) reactions were identified as delayed reactions and distorted reactions. These findings have been substantiated by Parkes (1975a), Rees & Lutkins (1967), and others. Parkes specified three abnormal responses to grief. The first abnormal response, inhibited grief, is thought to be permanently absent with the appearance of physiological symptoms in its stead. The second, delayed grief, occurs after a period of at least two weeks following a significant other's death, during which the expression of grief is totally inhibited. This delay may be due to prolonged shock and numbness that is generally characterized as a normal, but brief response. Chronic or prolonged grief is the third type. It appears to be the same as typical grief, but some or all of the manifestations are pronounced or prolonged. Lengthy or severe depression is the most common symptom in chronic or prolonged grief.

The loss of a significant other has been widely accepted as the major stressful life event (Holmes & Rahe, 1967; Sarason, Johnson, & Siegel, 1978). Clinical and experimental studies have demonstrated that stress contributes to the development and course of a range of disorders, including pathological states in which immune processes are involved (Stein, Schleifer, & Keller, 1980). In addition, altered T-cell function has been associated with inceased mortality in otherwise healthy elderly persons (Roberts-Thompson, Whittingham, & Youngchaiyud, 1974). Changes in nutrition, activity levels, sleep patterns, and drug use often reported by bereaved persons can influence centrally mediated stress responses (Murphy, 1984, 1985 in press), while a combination of these factors is believed to influence lymphocyte function. A series of studies have demonstrated that the central nervous system, particularly the hypothalmus, can modulate immunity (Keller, Stein, & Camerino, 1980). Stress and central nervous system effects on immunity may be mediated by neuro-endocrine or autonomic processes, which, have been associated with psychological states, such as depression and/or anxiety commonly found in stressed subjects and in the grieving widowed (Schleifer, Keller, Camerino, Thornton, & Stein, 1983). It has not yet been determined if the suppression of the immune system in the bereaved is related to the intensity of the depressed mood, but it is hypothesized as part of the grief/illness progression.

Depressed immunological functioning has been linked with an increased incidence of malignancy occurrence. Proper management of grief reactions may prevent such serious and undesirable sequelae as outlined above. Since not all bereaved persons can have or will accept the benefit of expert psychiatric help, much of this knowledge will have to be passed on to auxillary workers and the lay public through formal death education efforts.

Factors Affecting the Grief Response

There are a number of factors which affect the grieving response including the nature of the death event and an individual's characteristics and beliefs. Adherence to social norms or a desire to relinquish those practices, as well as the availability of resources, can have a substantial impact on a bereaved individual's coping skills and abilities.

Nature of the Death Event

The nature of the death event as a bereavement study variable has been explored with increasing frequency in the last decade. It has been operationalized dichotomously as expected/unexpected or sudden/prolonged. These definitions may not be mutually exclusive. Weisman has attempted to improve the definition of the nature of the death event as timely/untimely. Whether the death was viewed by the bereaved person as timely or untimely, may have an impact on the course of the grief response (Weisman, 1973).

Three types of untimely death have been identified by Weisman: premature, unexpected, and calamitous. Premature death refers to the demise of an individual in an early phase of development such as childhood or young adulthood. Unexpected death occurs when a death is sudden or unpredicted such as a car accident or an acute myocardial infarction. A calamitous death is one which is unpredicted and also violent, such as murder or suicide. Weisman states that these three types of untimely death may occur together or as single components, (i.e., each is a sufficient, but not necessary component of the phenomenon of untimely death.) With any of these types of untimely death, the risk of an atypical grief response is increased (Weisman, 1973).

Timely deaths, on the other hand, are those in which death is expected and at least somewhat accepted. In this type of death there is a correspondence between observed survival and expected survival. In timely death situations, both ill persons and significant others may find death acceptable (Weisman, 1973). Severely debilitating sequelae in the wake of a timely death is thought to be less likely for the bereaved person. However, study findings regarding responses to timely/untimely death are controversial for two reasons. First, differences in bereavement responses between the two types of death have not been supported in the literature (Murphy, 1983), and second, most studies have used other definitions to explore this phenomenon that are not mutually exclusive (Glick et al., 1974; Hauser, 1983; Vachon,

Formo, Freedman, Lyall, Rogers, & Freeman, 1976; Vachon, 1976).

Given Weisman's conceptualization, response to a death event should be perceived as less traumatic if it is predictable. Glick et al. (1974) however, found indications that not all persons can process the information offered in anticipatory grieving or utilize appropriate coping mechanisms, and therefore the impact of the death is not diminished. Also, one's repertoire of coping skills as well as other concurrent stressors and personality style greatly influence one's coping responses (Silver & Wortman, 1980).

Bugen (1977) also examined the nature of the death event, but from the perspective of the bereaved individual's perceptions of closeness and preventability, rather than from the objective event perspective. The centrality or peripherality of the relationship to the bereaved was examined as well as personal beliefs of preventability regarding the death event. The model is represented as a 2 x 2 matrix with four possible grief response outcomes. Within the context of a central relationship existing between the deceased and the bereaved, coupled with the belief on the part of the bereaved that the death was preventable, an intense and prolonged grieving process would be expected. If a central relationship were present but the belief was held that the death was unpreventable, an intense but brief grief process would be anticipated. With peripheral relationships, the expected response is mild in intensity with the duration contingent on the belief of preventability. If a belief of preventability of the

death is predominant, the duration of the grief is predicted to be more prolonged than if the belief of unpreventability is held.

This model also delineates specific intervention strategies in dealing with these two key issues according to Bugen (1977). Both appear to be important. First the bereaved can be assisted to change their beliefs about the preventability of the death to the unpreventable stance. Even though Bugen does not directly refer to this intervention as assisting in the search for meaning of the death, beliefs about preventability are an important aspect of what Marris (1974) and Lazarus and Folkman (1984) describe as persons' needing to come to grips with the question "why did this happen (to me)". Next, the bereaved can be assisted to gradually view their relationship with the deceased as less central and more peripheral. The goal is to have the person view the loss as less intense as time passes.

Individual Characteristics

The values and beliefs of the bereaved individual have an effect on how well personal coping skills are utilized. Adherence to or rejection of socially normed practices surrounding the death event, such as funerals or other rituals, may increase the individual's vulnerability to abnormal grief responses. Age, gender, beliefs about viewing the body, and attitudes toward final good-byes may result in conflict with cultural groups (i.e., one's own or one which is dominant in the society or geographical area)

or other family members.

Concurrent stressors, such as personal illness, financial difficulties, or other recent loss experiences, would place the individual at higher risk for an abnormal or prolonged grief response. However, successfully resolved previous losses may aid the individual in recovery, as coping skills specific to dealing with loss situations have been developed (Horowitz, Krupnick, & Kaltreider, 1981; Cowan & Murphy, 1985; Silver & Wortman, 1980).

There are numerous personality factors which are believed to mediate responses to loss experiences and, therefore, their resolution. Reasonable reality orientation, appropriate and adequate personality defenses, and the ability to recognize and express emotion appropriately, all enhance optimal resolution of the crisis surrounding the death event (Parkes, 1975a; Vachon, Rogers, Lyall, Lancee, Sheldon, & Freeman, 1982).

Personal and Social Resources

A number of other factors are believed to indirectly affect grief responses. Recently much attention has been focused on the role of social support as part of the coping repertoire. Social support has applicability in bereaved populations as both psychological and material forms of assistance because support can be provided at a time when the individual faces significant stressors (Clayton, 1978). Support from the community and significant others may well have far reaching effects on the

coping abilities of individuals. In spite of the increased attention to the concept of social support, only a few bereavement studies have examined its effects empirically (Vachon, 1976, 1979, et al., 1982). For example, Vachon et al. (1982) examined the relationship between a variety of factors including social support and the risk of poor outcome for recently bereaved widows. Poor social support was found to be the single best predictor of physical and psychological symptoms in the Vachon et al. (1976) sample.

Measurement Issues and Instruments

Resolution

A number of grief models postulate recovery and resolution as the final outcome of the grieving process (Kavanaugh, 1972; Kubler-Ross, 1969). Most research in this area has been done in relation to conjugal loss. Vachon (1979) found that 38% of the bereaved widows in her study were still experiencing a high level of distress one year after the deaths of their husbands. Other studies have indicated that between 30% and 81% of those bereaved show evidence of less than complete recovery 2 to 4 years after the loss of their spouse (Marris, 1958; Glick et al., 1974).

It is clear from these studies that there is considerable variability in time estimates of resolution. These findings are likely due to the many variables which can affect the grief response and the lack of normative data on grieving. Thus, a time

frame for resolution is not predictable empirically at this time (Barrett & Schneweis, 1980-81).

Assessment and Prediction of Grief

The duration of the grief process is difficult to measure and therefore definitions of "brief" or "prolonged" grief responses are highly speculative. Lindemann (1944) stated that with recently bereaved persons seen twice a week for 4 to 6 weeks immediately following the death, the grief could be "settled" provided it was uncomplicated and undistorted. Recent research indicates that such a period of brief therapy may be an underestimation. A description and critique of several measures of grief follows.

The Grief Experience Inventory (GEI). This measure developed by Sanders, Mauger, and Strong (1979) is the most highly developed and psychometrically established grief measure available. The GEI is composed of 18 subscales, (5 of which are related to somatization). The GEI has been tested with several samples. The reliability estimates of the scales vary across studies, however it has generally been found acceptable for research purposes. The validity has also been examined by numerous methods including correlation with the Minnesota Multiphasic Personality Inventory (MMPI) and has been found to be within the limits of acceptability for research.

The Texas Inventory of Grief (TIG). The TIG was developed (Faschingbauer, DeVaul, & Zisook, 1977) to define, describe, and measure grief using a self-report scale. This scale addressed present feelings, past behavior, feelings immediately following the object of loss, and the frequency and time course of the present grief related behaviors and feelings (Zisook, DeVaul, & Click, 1982). The original 14 item scale was expanded to a 58 item scale by Zisook, DeVaul, & Click (1982).

An internal consistency correlation on the original 14 item scale was done as a means of eliminating items which were not well correlated ($p < .05$). Eleven items remained. The split-half reliability coefficient of these 11 items was +.81 and their shared variance with grief was 48%. The method of this determination was not discussed. This scale was also tested for construct validity by separating the forms completed by those more recently bereaved from the remainder of persons bereaved longer. These forms had a significantly higher mean score than did the others (one-tailed $t = 1.80$, $df = 58$, $p < .05$) (Faschingbauer et al., 1977).

Reliability of the expanded TIG scale has not been addressed in the literature. However, portions of the TIG were compared with the Zung Self-Rated Depression Scale in an attempt to clarify the nature of the relationship between depression and unresolved grief (Zisook, & DeVaul, 1983). The concurrent validity was reportedly high. Reliability coefficients were not reported for

either scale.

The Symptom Checklist 90 (SCL-90-R). The SCL-90-R was developed by Derogatis (1977) to measure psychological distress. It has been used in a number of studies to measure symptom distress levels for post-traumatic stress disorders (Horowitz, Wilner, Kaltreider, & Alvarez, 1980), to document initial psychological response to parental death (Horowitz, Krupnick, & Kaltreider, 1981), and to identify populations at risk for psychological problems after the Three Mile Island nuclear accident (Bromet, Schulberg, & Dunn, 1982). Few bereavement studies have used the SCL-90-R (Murphy, 1982). It is composed of nine clinical subscales (90 items) that address the following symptom dimensions: Somatization (SOM), Interpersonal Sensitivity (INT), Obsessive-Compulsive (OBS), Depression (DEP), Anxiety (ANX), Hostility (HOS), Paranoid Ideation (PAR), Phobic-Anxiety (PHOB), and Psychoticism (PSY) (Derogatis, 1981). The most commonly used combined score is the Global Severity Index (GSI) (Jacobs, Doft, & Koger, 1981). The GSI is considered the most meaningful single indicator of the current degree or depth of disorder and use of it is indicated when a single summary is desired (Derogatis, 1977).

Many reliability and validity studies on the SCL-90-R were accomplished using psychiatric patients as subjects; however, 945 non-patient normals participated in standardization of the instrument (Derogatis, 1977; Evanson, Holland, Mehta, & Yasin,

1980; Hoffman, & Overall, 1978). Derogatis reported agreement for eight of the nine symptom dimension constructs between hypothetical and empirical representations with values ranging from .30 to .77. The PSY dimension was excluded from this analysis. Hoffman reported internal consistency reliability ranging from .83 to .94 with Cronbach's alpha coefficient at .98 for the complete SCL-90-R (Kiger, 1984). Recently, reliability for the instrument on 49 disaster-bereaved subjects and 36 controls was established (Kiger & Murphy, 1984). Coefficient alphas for both groups on the GSI were .95. A comparison of the SCL-90-R with the two tools previously examined demonstrates its utility in assessing grief responses, as the SCL-90-R has reliability estimates equal to or greater than those of the GEI or TIG.

Summary of the Literature Review

The literature review has examined the duration and intensity aspects of grief responses. Bugen's (1977) theory is an initial effort in blending two important variables which undoubtedly affect the grieving reponse and bereavement outcomes. Typical and atypical grief responses have been defined and described and various models of grief explored. Potential sequelae of atypical grief responses have been outlined. Factors affecting the grief response including perceptions of the circumstances of the death event, and personal and social resources have been shown to substantially affect resolution time, making it unpredictable. Several instruments to assess grief and predict its outcome were also examined. As yet, no satisfactory method to predict the grief response has been found.

Conceptual Framework

It is acknowledged that a number of factors affect grief responses (i.e., social support, concurrent stressful life events, and coping skills). However, these variables are not included in this study, since the primary purpose was theory testing. This study was specifically designed to test the relationship between the variables of preventability and non-preventability and a central relationship associated with bereavement and the duration and/or intensity of the grief response.

The belief of preventability or lack of preventability of the circumstances of the death has also been thought to exert a significant impact on the grief response (Bugen, 1977). While an interactional model of centrality and preventability has been hypothesized (see Table 1) it has yet to be empirically tested and reported.

The hypothesis guiding this study is that bereaved persons who perceived a central relationship with the deceased person(s) and who believed the circumstances of the death were preventable, will demonstrate a longer and more intense grief response when compared to bereaved persons who view the circumstances of the death as unpreventable (see Table 1). While centrality and beliefs of preventability are believed to exert a direct affect on the grief response and subsequent recovery, there are several other factors which also have direct or indirect affects. These are outlined in the vulnerability model which also guided this

study (see Figure 1). It was anticipated that concurrent stressors would prolong the recovery time. Adequate social support and adaptive personal coping skills, as well as the successful resolution of previous losses, are believed to influence the recovery time indirectly, promoting more rapid resolution than if they were absent. There are numerous personality factors which are believed to influence this process indirectly and diversely.

Definition of Study Concepts

The concepts of grief and bereavement do not have universally accepted definitions in the literature and there have been no definitive empirical published tests of these concepts. An examination of these concepts was undertaken for the purpose of clarification for this study. Centrality and preventability were defined, as they were essential concepts in this study.

Bereavement is a concept which has no universal definition nor pattern of use in the literature. It is generally considered a broader term than grief, although the two terms are often used interchangably. Bereavement has been referred to as all of the physiological, psychological (particularily cognitions and affect), behavioral, and sociocultural response patterns displayed by an individual following the loss of a significant other (Augspurger, 1978; Averill, 1968; Blauner, 1966; Silverman et al., 1975; Vachon, 1976).

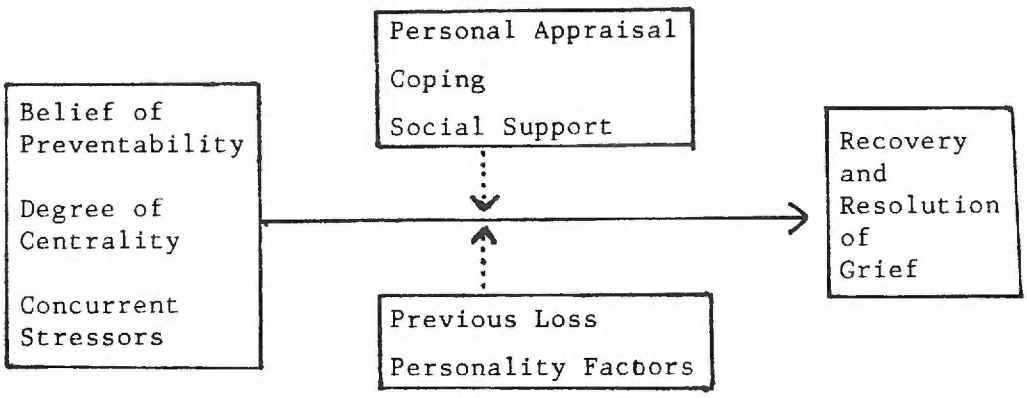

Figure 1. The Vulnerability Model

Grief, is a concept usually used to describe a set of "normal" psychological and/or physiological reactions related to loss (Averill, 1968; Silverman et al., 1975). The grieving process results from both object loss and loss of social relationships (Averill, 1968; Silverman et al., 1975).

Centrality of relationship was defined as the closeness or importance of the relationship between the bereaved and deceased as defined by the bereaved.

Mental distress was defined as the presense of a high level of psychological symptomology, such as depression, anxiety, hostility, somatic symptoms, and obsessive-compulsive behaviors at 11 and 35 months post-bereavement.

Subjects self-rating of recovery from their loss at T-1 (1981) and T-2 (1983) was accomplished by use of a single item with options ranging from "not at all recovered" (1) to "completely recovered" (9).

CHAPTER II:

Methods

This chapter describes the research methods used for this study. The design, sample, variables measured, data collection instruments and procedure have been included. This section concludes with a review of the methods of data analyses used.

Design

Secondary analysis is considered an important and appropriate form of research, as most original studies generate more data than are actually analyzed initially (Polit & Hungler, 1983). Moreover, issues central to the original study can be examined in depth, such as theory and concept development (Waltz & Bausell, 1983).

The initial study by Murphy (1982a) was a longitudinal exploratory study conducted in a natural setting following a natural disaster, the volcanic eruption of Mount Saint Helens in southwest Washington in 1980. The data base was comprised of a sufficient number of subjects and is appropriate for this study.

While most of the threats to internal validity in this study were the same as in Murphy's (1982a) original study (i.e., history, mortality, selection, maturation, and testing effects in a longitudinal study population), additional concerns arose due to the secondary analysis design. These included dealing with

deficiencies in the data base as well as finding data relevant to the research hypothesis. Both of these threats were minimal as the hypothesis was formulated in conjunction with the original researcher and within the context of the original study. The data should, therefore, be both relevant and sufficient in scope.

Generalizability of the conclusions reached in this study will be limited to populations bereaved in a natural disaster and are not necessarily applicable to other bereaved populations. Limited generalizability is due primarily to the retrospective study design and secondarily to the limited data regarding the unique dynamics of bereavement as the result of an untimely death. Thus, the usefulness of the results will be limited to disaster populations, but the study is an important beginning step in the testing of grief theories across various populations.

Sample

The participants for this study were the same bereaved sample recruited by Murphy in 1981. The bereaved sample was part of an overall sample of 177 subjects recruited for the comprehensive study. Samples not used in the secondary analysis were 21 persons who suffered permanent property loss and 50 control subjects. Subjects bereaved as a result of a natural disaster (n = 69) were close family members and close friends of the deceased disaster victims who were either confirmed dead (n = 30) or presumed dead (n = 39) following the catastrophic event.

Two primary methods were used to identify and recruit bereaved subjects in the original study: 1) death certificates of the 20 confirmed dead listed next of kin, and 2) a list of bereaved close family and friends of 31 of those presumed dead was obtained from the county prosecutor's office. For each deceased person two bereaved persons were included in the sample. Attempts were made to first recruit spouses of the deceased. If the deceased was not married at the time of death, a parent or adult offspring was selected. The second bereaved person for each deceased victim was the closest friend or colleague willing to participate (Murphy, 1982a).

Measurement of the Independent and Dependent Variables

A brief and mild grief response was defined as the absence or low level of generally accepted symptoms (raw score mean $< .35$) noted 1 and 3 years postdisaster death as measured by scores of the Composite Scale (51 items) of the SCL-90-R developed and tested for this study and a self-rated recovery of 8 or 9 ("mostly" or "completely recovered"). A prolonged and intense response was defined as the presence of moderate levels of generally accepted symptoms (raw score mean of $> .36$) one or three years postdisaster death as measured by scores on the Composite SCL-90-R Scale, and self-rated recovery of 7 or lower on the 9 point scale. Therefore, a "brief" response was viewed as one in which considerable resolution had occurred by the 11 month

evaluation, while a "prolonged" response was seen as one in which significant symptom levels and low to moderate rates of recovery remained at the 35 month bereavement evaluation.

The values for the cut-off scores above were determined by a three member panel of bereavement experts. Derogatis' (1977) non-patient normal Global Severity Index SCL-90-R score was .31 ($\underline{N}$ = 935) while Murphy's (1982a) control group was .39 on the GSI at Time 2 (35 months postbereavement). Therefore a number midway between these is .36 and was deemed appropriate for study purposes. The composite score differs from the GSI score in that four subscales, interpersonal sensitivity, paranoid ideation, phobic anxiety, and psychoticism were not included. The rationale was that items on these subscales were not selected by the panel of judges as being common grief responses, and second, the scales omitted contain items considered to assess more abnormal symptoms of mental distress. Table 2 shows the SCL-90-R items and their original classification subscales. The items and relative subscales were determined by exhaustive psychometric procedures, including factor analysis, conducted by Derogatis and his colleagues.

Centrality or closeness or importance of the relationship was determined by asking participants at 11 months post-disaster how close (i.e., important) the deceased/bereaved relationship was to them. A nine point item gave participants the opportunity to rate the relationship as not at all close (anchor = 1) to very close

Table 2

SCL-90-R Subscales Used in Analysis

Scale	Number	Description
Somatization	1	Headaches
	4	Faintness or dizziness
	12	Pains in the heart or chest
	27	Pains in the lower back
	40	Nausea or upset stomach
	42	Soreness of your muscles
	48	Trouble getting your breath
	49	Hot or cold spells
	52	Numbness or tingling in parts of your body
	53	A lump in your throat
	56	Feeling weak in parts of your body
	58	Heavy feelings in your arms or legs
Depression	5	Loss of sexual interest or pleasure
	14	Feeling low in energy or slowed down
	15	Thoughts of ending your life
	20	Crying easily
	22	Feeling of being caught or trapped
	26	Blaming yourself for things
	29	Feeling lonely
	30	Feeling blue
	31	Worrying too much about things
	32	Feeling no interest in things
	54	Feeling hopeless about the future
	71	Feeling everything is an effort
	79	Feelings of worthlessness
Configural Items	19	Poor appetite
	44	Trouble falling asleep
	59	Thoughts of death or dying
	60	Overeating
	64	Awakening early in the morning
	66	Sleep that is restless or disturbed
	89	Feelings of guilt

(continued)

Table 2 (continued)

Scale	Number	Description
Obsessive-Compulsive	3	Repeated unpleasant thoughts that won't leave your head
	9	Trouble remembering things
	10	Worried about sloppiness or carelessness
	28	Feeling blocked in getting things done
	38	Having to do things very slowly to ensure correctness
	45	Having to check and double check what you do
	46	Difficulty making decisions
	51	Your mind going blank
	55	Trouble concentrating
	65	Having to repeat the same actions such as touching, counting, washing
Anxiety	2	Nervousness or shakiness
	17	Trembling
	23	Suddenly scared for no reason
	33	Feeling fearful
	39	Heart pounding or racing
	57	Feeling tense or keyed up
	72	Spells of panic or terror
	78	Feeling so restless you couldn't sit still
	80	The feeling that something bad is going to happen to you
	86	Thoughts and images of a frightening nature
Hostility	11	Feeling easily annoyed or irritated
	24	Temper outbursts that you could not control
	63	Having urges to break or smash things
	74	Getting into frequent arguments
	81	Shouting or throwing things

(anchor = 9). All participants rated closeness of the relationship at 7 or higher. Two additional related items that verified centrality pertained to positive and problematic areas in the relationship prior to death. Table 3 summarizes study participants. There were two reasons that Bugen's 2 X 2 matrix could not be tested. First, there were no subjects for the peripherality cell in the matrix, and second, centrality/closeness was not assessed at three years post-disaster.

At Time 1, 1981, (T-1) the placement of blame by the bereaved for the death of the deceased was elicited. Forty one of the bereaved (59.4%) blamed "God" or "no-one" indicating a belief of unpreventability, while 28 blamed themselves, the deceased, rescuers, or others, indicating a belief of preventability. At Time 2, 1983, (T-2) beliefs of preventability/unpreventability were solicited directly and 28.3% (n = 13) held the belief that all the deaths were totally preventable.

Participation rates at T-1 (11 months postdisaster) consisted of 85% of all bereaved persons contacted. Attrition rate at Time 2 (35 months postdisaster) was 29% for the bereaved group (Kiger & Murphy, in press).

Instruments

Items from the Symptom Checklist 90-R were selected to obtain a measure of levels of mental distress for the bereaved sample. The selection and scaling of these items for study purposes are

Table 3

Differential Response Rates of Participation for the Study Sample

Group	Potential # of Participants	Persons Contacted	Actual Participation	Percent of Potential	Percent of Those Contacted
Presumed Dead Bereaved	62	45	39	63%	87%
Confirmed Dead Bereaved	40	36	30	75%	83%
Control Subjects	--	73	50	--	68%
Total	--	154	119	--	79%

Note: From "Identification of the high risk bereaved of the Mt. St. Helen's disaster" by M. E. Cowan, 1982, unpublished master's thesis. Adapted by permission.

discussed in the Data Analysis Procedures section that follows.

Internal consistency and stability reliabilities with the same disaster bereaved population and a control group were recently examined (Kiger & Murphy, 1984). Pearson's- r was computed to assess stability of the SCL-90-R. In the studies in which psychiatric patient populations were used, different methods and criteria for analysis were used. No study identified all nine symptom dimensions as clearly separate factors, which might affect the construct validity for the symptom dimensions (Kiger, 1984). Table 4 provides the means and standard deviations for the SCL-90-R relating to the bereaved population from Murphy's 1981 and 1983 studies (Kiger, 1984). Pearson's- r provides an estimate of construct validity, which was high.

Data Collection

Data for the comprehensive longitudinal study were collected using multiple standardized and investigator-developed instruments. Of these, the SCL-90-R was the most amenable to the measurement of grief symptomatology and bereavement adaptation over time. Subjects were instructed to answer the SCL-90-R questions by rating how much discomfort a problem had caused them in the last 30 days at T-1 (1981) and T-2 (1983).

A battery of standardized and investigator-developed measures was arranged in three random orders and distributed by mail to

Table 4
Internal Consistency and Stability Reliability Estimates of the SCL-90-R Scales for Bereaved and Control Groups, 1981 and 1983

SCL-90 Subscales	Number of Items	1981 (T-1) Coefficient Alphas		1983 (T-2) Coefficient Alphas		From 1981 to '83 Pearson Correlations	
		Bereaved	Control	Bereaved	Control	Bereaved	Control
Somatization	12	.82	.91	.82	.86	.55***	.24
Interpersonal Sensitivity	9	.86	.87	.89	.82	.66***	.50***
Obsessive Compulsive	10	.91	.83	.88	.73	.58***	.43**
Depression	13	.89	.91	.89	.91	.52***	.37*
Anxiety	10	.89	.89	.86	.78	.69***	.35*
Hostility	6	.85	.82	.74	.72	.63***	.34
Paranoid Ideation	6	.80	.77	.76	.65	.47***	.06
Phobic Anxiety	7	.78	.62	.76	.44	.61***	-.14
Psychoticism	10	.74	.68	.67	.74	.60***	.24
Global Severity Index		.97	.97	.97	.97	.66***	.40**

Note: From "A reliability assessment of the SCL-90-R using a longitudinal natural disaster bereaved sample" by J. Kiger, 1984, unpublished master's thesis. Adapted by permission.

Note: Bereaved Group (n = 49), Control Group (n = 34).

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

persons who agreed to take part in the study. Following the return of the mailed information, structured personal or telephone interviews were scheduled. These interviews with the bereaved group (n = 30) lasted about an hour.

Potential risks to subjects in a secondary analysis include maintenance of confidentiality and anonymity, as well as appropriate use of data collected. Anonymity was maintained as computer printouts were the source of the secondary analysis, requiring no contact with original documents. Concurrence exists between this researcher and the original researcher as to the ethicality of examining the data in relation to the research questions of this study as the theory tested herein was utilized in the original study. Further clarification of validity with this population was congruent with the goals of the original study.

Human subjects were protected according to the Department of Health and Human Subjects (DHHS) guidelines. Murphy was granted approval by institutional review boards at Portland State University in 1981 and Oregon Health Sciences University in 1983. The current internal comparison analyses were exempt under DHHS guidelines.

Data Analysis Procedures

Computer analyses of data already collected by Murphy in 1981 and 1983 (1982a) were carried out. The following indicators were

used for analysis: the type of relationship, central or peripheral; perception of the event as having been preventable or unpreventable; and the degree of morbidity identified by subjects. Morbidity was identified as the duration of physical symptoms and/or mental distress symptoms 11 and 35 months after the event as measured by subscales of the SCL-90-R.

For purposes of this study, 5 subscales of the SCL-90-R somatization (SOM), obsessive-compulsive (OEC), depression (DEP), anxiety (ANX), hostility (HOS), and the seven configural items were chosen for analysis based on their concurrence with grief symptomatology as described in the literature (see Table 2). The measure is referred to as the composite SCL-90-R scale.

A list of cases was derived from previously coded data. These were divided according to the respondents' belief of the preventability surrounding the circumstances of the death. Because of unequal $\underline{N}$'s, preventability beliefs ($\underline{n}$ =21) and unpreventability beliefs ($\underline{n}$ =28), there was no available statistical package to analyze repeated measures analysis of variance. Therefore, calculations were done by hand using the unweighted means solution as described by Winer (1971). Missing data were handled as suggested by Derogatis (1977). If more than 20% of the items from the entire test or more than 40% of the items from any one subscale were missing, no score was computed for that individual.

CHAPTER III:

Results

The results section reports two major kinds of findings. First, reliability and construct validity of the SCL-90-R subscale composite used in the study are reported. Second, the statistical computations carried out to test for relationships between the variables of attributions/beliefs of preventability and non-preventability associated with bereavement and the duration of the grief response are reviewed.

Reliability and Validity of the Study Measures

To determine internal consistency reliability on the composite scale (five subscales plus the configural items) coefficient alpha was computed for both the 1981 and 1983 data collections (T-1 and T-2). All four coefficient alpha estimates were .96 for both Murphy's non-control group sample (n = 34) and the bereaved group (n = 49). Inter-item correlations were consistent from T-1 to T-2 as shown on Table 5 (Kiger, 1984). This is an indicator of adequate construct validity of the subscales chosen for this study. The inter-item correlations and covariances at T-1 and T-2 for the bereaved group are shown in Table 5. Corrected item total correlations ranged from .23 to .74 at T-1 and from .06 to .78 at T-2. Table 6 shows SCL-90-R

Table 5

Reliabilities of SCL-90-R Subscale Composite for the Bereaved Group (n = 49)

	Mean	Range	Variance	alpha
Time 1 (11 months)				
Inter-item covariance	0.40	1.50	0.06	
Inter-item correlation	0.32	0.94	0.02	
Internal consistency				.96
Time 2 (35 months)				
Inter-item covariance	0.23	1.84	0.04	
Inter-item correlation	0.27	1.21	0.03	
Internal consistency				.96

Table 6

Inter-item Correlations of Selected SCL-90-R Items for the Bereaved Group (n = 49)

	Item Number	Corr.	Description
Time 1			
Low (.30)	12	.23	Pains in heart or chest
High (.70)	3	.73	Repeated unpleasant thoughts that won't leave your mind
	29	.74	Feeling lonely
	33	.70	Feeling fearful
	46	.70	Difficulty making decisions
	51	.71	Your mind goes blank
	54	.71	Feeling hopeless about the future
	55	.72	Numbness or tingling in parts of your body
	71	.70	Feeling everything is an effort
	79	.70	Feelings of worthlessness
Time 2			
Low (.30)	1	.16	Headaches
	12	.06	Pains in heart or chest
	19	.14	Poor appetite
	48	.29	Trouble getting your breath
	60	.18	Overeating
	67	.23	Having urges to break or smash things
High (.70)	32	.78	Feeling no interest in things
	54	.74	Feeling hopeless about the future
	55	.82	Numbness or tingling in parts of your body
	57	.72	Feeling tense or keyed up

selected items and their highest and lowest correlations at T-1 and T-2. These twenty items have been consistently reported in the grief and bereavement literature as somatic and emotional distress signals associated with the grieving processn Nine items were highly intercorrelated at T-1 and reflect typical responses reported by bereaved, such as, feeling lonely and hopeless about the future, difficulty making decisions, and feeling everything is an effort. These responses have been called affective, cognitive, and motivational deficits associated with depression (Beck, 1967). At T-2 four items remained highly intercorrelated and included depressive features as well as somatic and anxiety symptoms.

Findings Related to the Hypothesis

The following hypothesis was tested: Bereaved persons who believe the circumstances of the death were preventable will demonstrate a longer and more intense grief response when compared to bereaved persons who view the circumstances of the death as unpreventable.

A brief and mild response was operationally defined as a mean score of $<.35$ on the SCL-90-R composite one or three years postdisaster death and a self-rated recovery as mostly or completely recovered, i.e., an 8 or 9 on the 9 point recovery item. In contrast, a prolonged and intense response was operationally defined as a mean score of $>.36$ on the SCL-90-R composite one or three years postdisaster death, and a self-rated

recovery of 7 or lower on the 9 point recovery item.

All participants rated their relationship as "central" with the deceased. Therefore, there was no test of a peripheral and preventable/unpreventable relationship.

In order to test the hypothesis, paired Student's *T* -tests and two-way ANOVA were computed. The two levels of the first factor were the groups of subjects divided according to their beliefs of preventability/unpreventability. The two levels of the second factor were the repeated measures across time.

Between and Within Group Differences

T-Test Between Group Differences. To determine what overall mental distress changes or differences that may have occurred over time, means and standard deviations from the SCL-90-R composite scale were computed and tested by the Student's- *T* for significance, comparing the two bereaved groups subdivided according to attributions/beliefs of preventability/unpreventabiltiy at T-1 and T-2. Statistically significant differences on *t* values between the two groups at T-1 were found only on the obsessive-compulsive (OBC) subscale, $t(49) = 1.69$, $p < .05$. All other between group t-tests were not significant at T-1 or T-2.

The lowest means for both bereaved groups at both T-1 and T-2 were on the hostility (HOS) scale. The highest scale mean scores for both groups at T-1 and T-2 were on the depression (DEP) scale.

All scale means were higher for the bereaved group holding a belief of preventability than those holding a belief of unpreventability at T-1 and all sub-scale scores were above the cutoff criteria for a brief and mild response $>.36$ (see Figure 2). These findings remained consistent at T-2 for the somatization, obsessive-compulsive, and hostility scales; however on the depression and anxiety scales, scores of those holding beliefs of preventability fall below the scores of those holding beliefs of unpreventability. All scores met the prolonged and intense grief response criteria, $>.35$.

T-Test Within Group Differences. Means and standard deviations were computed and tested by the Student's- T for significance comparing differences within the bereaved group subdivided according to attributions/beliefs of preventability/unpreventability at T-1 and T-2. T -tests were computed for each of the six selected subscales (SOM, OBC, DEP, ANX, HOS, configural items) as well as composite scale totals and recovery ratings for the bereaved at T-1 and T-2. These findings are summarized in Table 7.

There were several statistically significant findings. For both bereaved sub-groups, T-1 and T-2 mean scores on the SOM, OBC, DEP, ANX, and configural item sub-scales were statistically significant at the $p < .01$ level. However, statistical significance was not shown on the HOS scale for either group, but

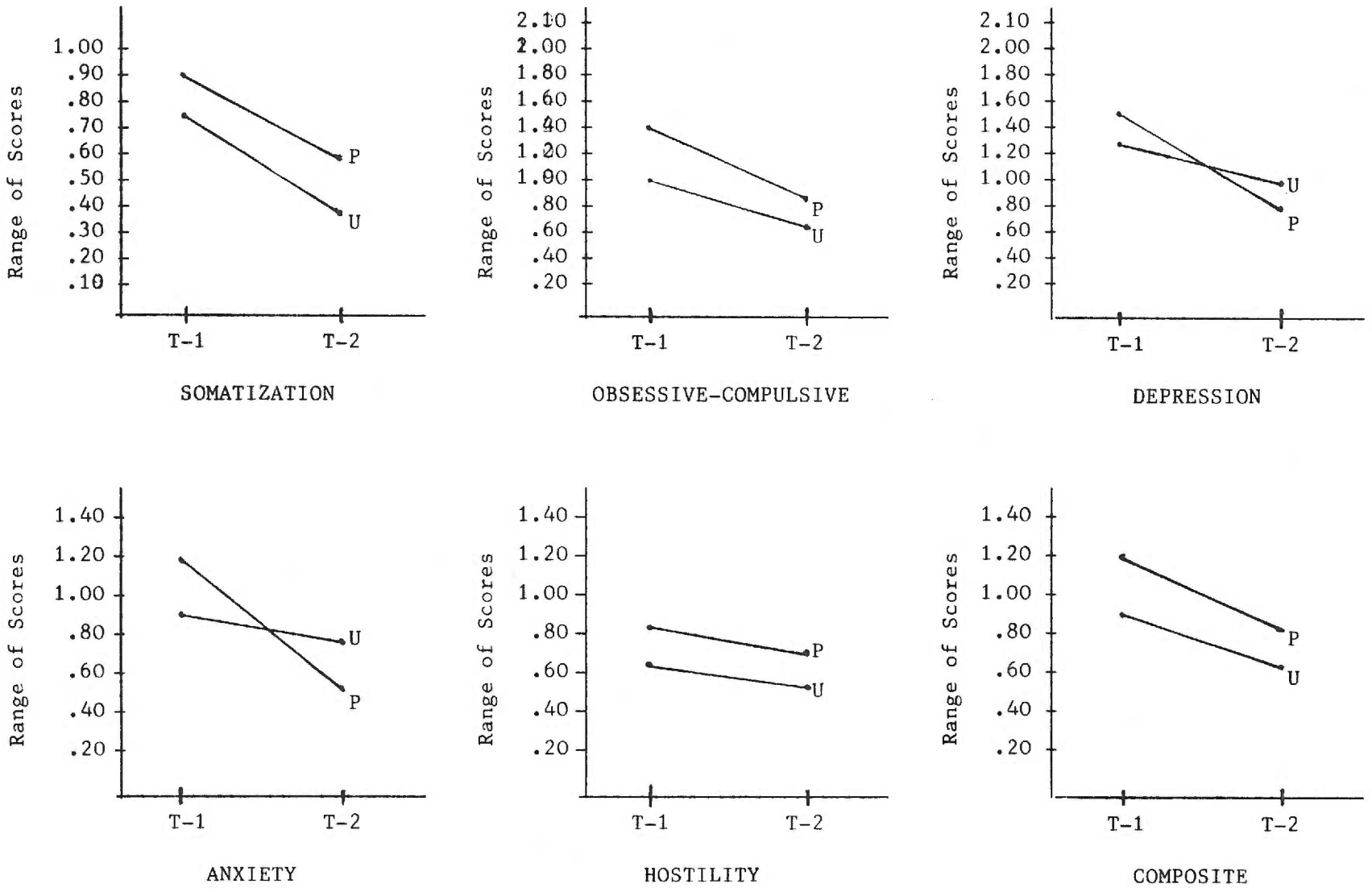

Figure 2. Changes in symptom levels reported over time by the bereaved group according to attribution of preventability of death as measured on selected study subscales of the SCL-90-R.

Table 7

Comparison of Within-Group Means, Standard Deviations, and T Values of Bereaved Groups Classified According to Beliefs of Preventability of Death in 1981 and 1983

	Unpreventable Belief Group (n = 28)			Preventable Belief Group (n = 21)		
	1981 (T-1)	1983 (T-2)	t	1981 (T-1)	1983 (T-2)	t
Subscale	$\bar{x}$ (sd)	$\bar{x}$ (sd)		$\bar{x}$ (sd)	$\bar{x}$ (sd)	
SOM	.77 (.57)	.46 (.48)	3.55**	.86 (.63)	.56 (.42)	2.35*
OBC	.95 (.84)	.63 (.65)	2.82*	1.35 (.84)	.77 (.51)	3.34**
DEP	1.23 (.70)	.84 (.68)	3.64**	1.47 (.66)	.84 (.43)	4.09**
ANX	.92 (.83)	.68 (.68)	2.52*	1.00 (.79)	.56 (.39)	3.10*
HOS	.65 (.81)	.52 (.53)	1.26	.78 (.63)	.67 (.52)	0.82
Composite	.97 (.64)	.67 (.57)	3.84**	1.15 (.58)	.71 (.36)	3.70**

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

scores were > .36. In addition, analysis of the SOM, OBC, DEP and ANX subscales showed a consistent decrease in symptom ratings between T-1 ad T-2.

Two-way Analysis of Variance. The results indicated no statistically significant difference between subjects attributions of preventability/unpreventability over the two year time period. However, statistically significant results, F (1,47) = 29.27, $p <$ .05, were demonstrated on the within subjects factor, indicating significant change over time. Table 8 shows the sources of variation, F and p values for the two study groups and Figure 3 show the raw mean scores of the SCL composite.

Recovery In addition to the standardized measure of overall mental distress, subjects self-rated their recoveries on a scale of 1 to 9. These differences were not significant based on preventability/unpreventability attributions; however, recovery responses met the prolonged and intense criteria, 7 or lower on the 1 - 9 point recovery item (see Figure 4).

Estimates of recovery ranged from 3 to 9 with a mean of 6.07, a median of 6.22, and a mode of 7.00. This indicates that one-third of the population believed themselves to have been only moderately recovered at 11 months post-bereavement.

Recovery from the loss was elicited at T-2 using the same item, however complete data were available for only 49 cases. The

Table 8

Two Way Analysis of Variance on Composite SCL-90-R Scores as Reported by the Bereaved Subgroups According to Attributions of Preventability

Source of Variation	SS	df	MS	F
Between Subjects				
A	0.3121	1	0.3121	.61
Subjects w. Groups	23.901	47	0.5085	
Within Subjects				
B	3.3401	1	3.3401	29.27*
AB	2.5280	1	2.5280	22.16*
B x Subjects w. Groups	5.3604	47	0.1141	

Note: * $p < .001$.

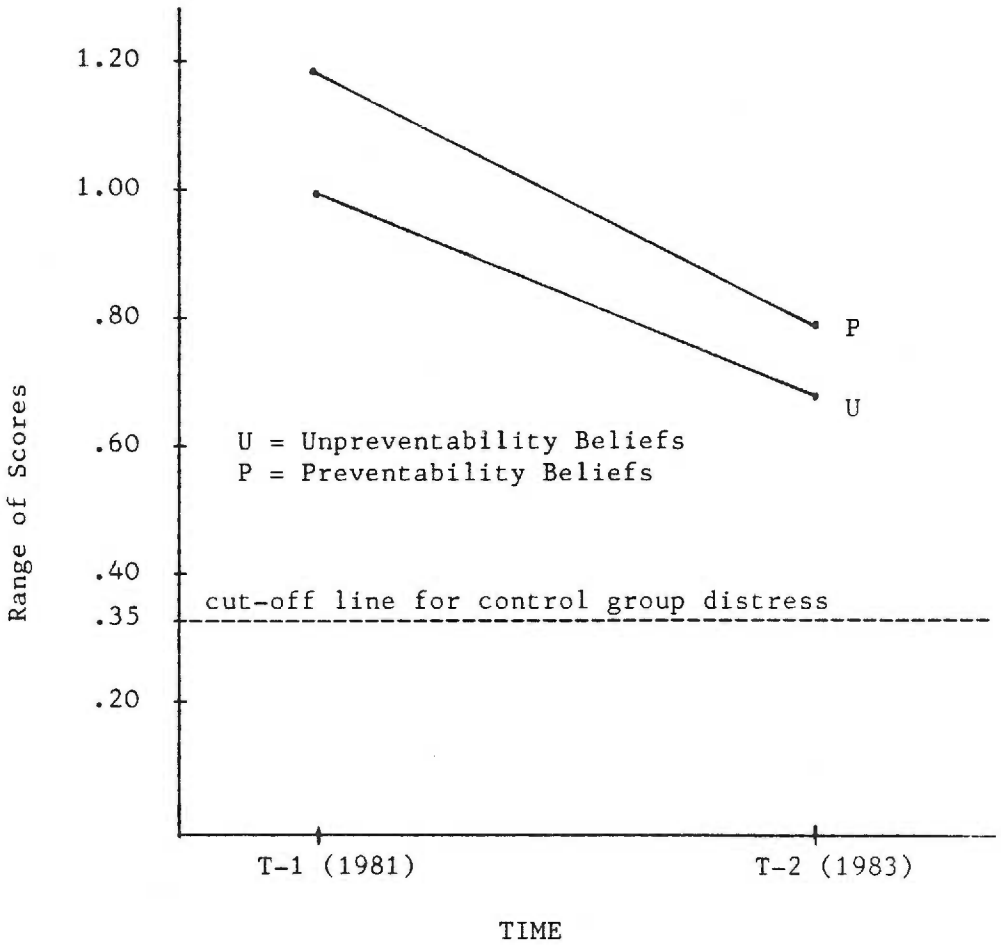

Figure 3. Repeated measures graph of AB' means generated from ANOVA of SCL-90-R Composite scale.

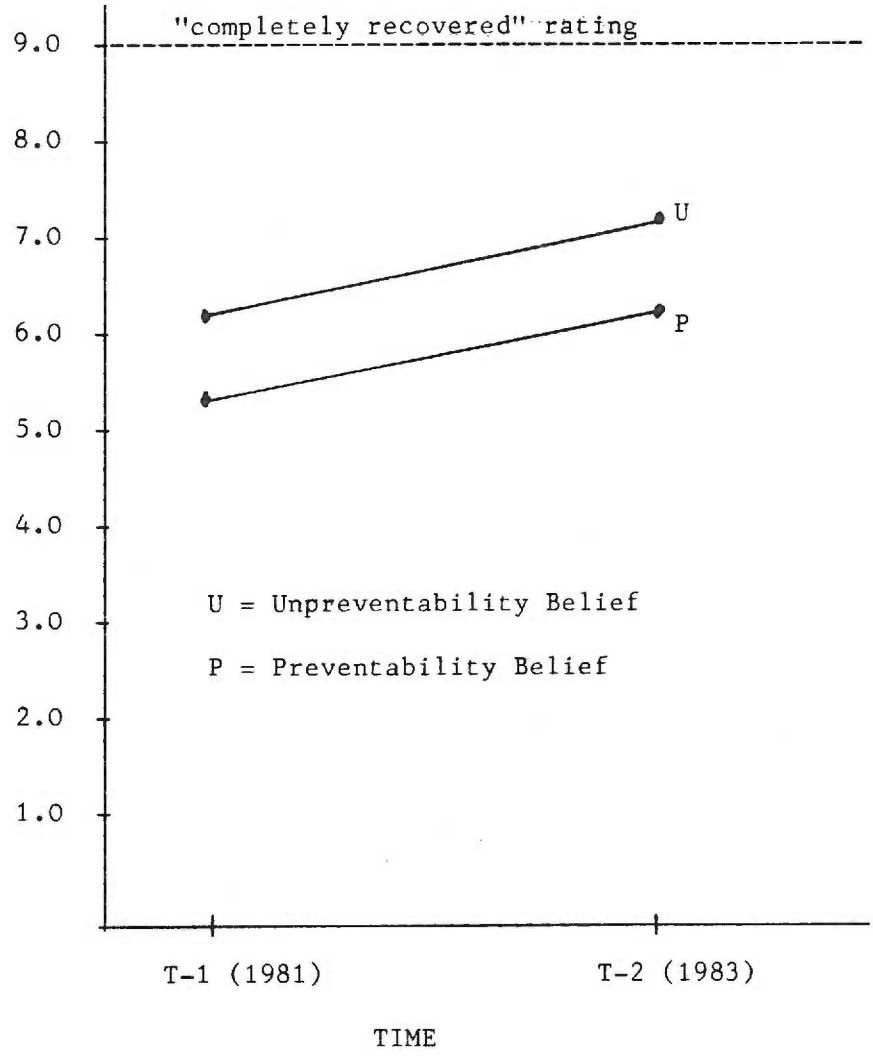

Figure 4. Self-rated recovery T-test scores as reported by each subgroup over time.

range was again from 3 to 9, with a mean of 6.57, a median of 6.78, and a mode of 7.00. Comparison of cases reporting at both T-1 and T-2 indicate their recovery to be only slightly improved at T-2.

Self-reported recovery ratings increased significantly for those holding the attribution of unpreventability, whereas those holding attributions of preventability rated their recoveries much the same (see Figure 4), and none met the high recovery criterion.

Data analysis of those bereaved who held beliefs of unpreventability of the deaths demonstrated a significant ($p < .05$) improvement in self rated recovery from T-1 to T-2. Analysis of those who held beliefs of preventability showed a slight improvement in self rated recovery between T-1 and T-2, but it was not significant at $p < .05$ ($p < .17$). Again, even though improvement was significant, distress ratings were in the prolonged and intense category, regardless of the attribution.

Summary of Results

The hypothesis that those persons holding attributions of preventability of the death event was only partially supported. The only significant between group T -test was on the OBC scale, whereas five of the six subscales on the within group t -tests were statistically significant for both sub-groups. Moreover, within group recovery ratings were significantly different for the unpreventability attribution group, but not for the group who

believed the deaths could have been prevented (see Figure 3). Similarily, the 2 X 2 ANOVA results indicated nonsignificant between group differences, but significant decreases in mental distress over time (see Tables 5, 6, 7,& 8). These results indicate that centrality of relationship and attributions of preventability/unpreventability hypothesized to result in differences between brief and prolonged grief responses failed to discriminate between the two groups. Rather, all participants' scores could be rated as intense and prolonged, which should have occured only in cases of centrality/preventability. Similarily, self-rated recoveries supported the persistence and intensity of the grief response.

CHAPTER IV:

Discussion

The purpose of this study was to conduct a partial test of Bugen's theory as to the affects of two grief variables, a belief of preventability or nonpreventability and centrality/peripherality, on the length and intensity of the grief response in bereaved individuals. This study used natural disaster bereaved subjects for an empirical test of the theory. This section will focus on a discussion of the findings related to the hypothesis, methodological issues, and significance to mental health nursing.

Hypothesis

The study hypothesis was: Bereaved persons who believe the circumstances of the death of a central person were preventable will demonstrate a longer and more intense grief response when compared to bereaved persons who view the circumstances of the death as unpreventable.

The results of data analyses partially support Bugen's (1977) theory of grief responses in bereaved individuals. Since Freud's original writing on melancholia, researchers have written about the close bond in significant relationships which is severed by death and the importance of interpersonal relationships in our

lives. The results demonstrated support for Bugen's theory in that both bereaved attribution groups were well above control group levels of mental distress, thus indicating prolonged and intense responses. It may be that some bereaved perceive disaster deaths as preventable, even though the event (i.e., the eruption of Mt. St. Helens) was not preventable.

There are numerous factors which may have contributed to the lack of total support for the hypothesis. The most powerful statistical test, two-way analysis of variance, showed significance on the repeated measures factor, indicating a significant drop in symptom levels over the two year time period; however, all the bereaved suffered intense and prolonged grief responses. There were not significant differences on the between groups factor, suggesting no demonstrable differences in symptom levels according to attributions made about the deaths as preventable or unpreventable. However, as indicated in the results section, many of the cross-sectional (slice of time) sub-scale values produced significant differences within the groups.

Methodological Issues

First, the timing of the data collection at 11 and 35 months into the bereavement transition may reflect measurement after the time during which the highest symptom levels would be expected tc occur and be reported. It may be that analysis of data collected

earlier in the grief experience would have allowed the hypothesized relationships to emerge.

Second, testing of Bugen's entire matrix was not possible because a criteria for study participation was the rating of centrality of the relationship at seven or higher on a nine point scale. That is, no peripherality dimension existed. Moreover, the centrality dimension rating was not obtained in 1983.

Third, sampling techniques and attrition of the sample from 1981 to 1983 may have contributed to the non-significant within groups ANOVA results. The attrition of subjects between 1981 and 1983 was primarily close friends, who perhaps perceived their relationship with the deceased in 1983 as more peripheral. Friends remaining in the study also had lower mental distress symptom levels than relatives. Similarly, interview data collected in the comprehensive longitudinal study indicated that of those who remained in the study, relatives saw centrality with the deceased very differently than did friends. They also had less resolution, lower rates of self-reported recovery, and higher rates of mental distress.

Fourth, there was only one available variable at two points in time to test Bugen's theory. Even though Bugen suggested that preventability may be the single most important bereavement variable, he had not empirically tested his theory when his 1977 paper was published. In the comprehensive study (Murphy, 1982a), attribution of preventability was not associated with high rates

of mental distress, whereas other factors such as centrality, concurrent life stress, multiple deaths in families, unpredictability of death, and age may have demonstrated this association clearly.

Finally, advances in research have been hampered by a lack of conceptual definitions for grief, bereavement, and successful adjustment following the death of a significant other. Silverman (1981) undertook an examination of some of the characteristics often viewed as indicators of good coping. Characteristics included were: 1) keeping ones distress within manageable limits; 2) maintaining a realistic appraisal of the situation; 3) being able to function or carry out socially desired goals; 4) maintaining a positive self concept; and 5) maintaining a positive outlook on the situation. There are numerous complexities involved in attempting to adequately define and/or apply any of these qualities to a conceptualization of successful coping. Ideally, precise theoretical statements specifying relationships between these variables would be generated. However, a lack of association between the various components of effective coping, as well as the observation that responses which are functional at one point in time, may prove to be counterproductive as the situation changes (Silverman, 1981) and increase the complexity of this task dramatically. Causal relationships among such variables as emotional reactions, coping strategies, and effective coping indicators are likely to be complex and multidirectional

(Silverman, 1981). In addition, the influence of individual values on definitions of good coping must be considered. Finally, normative data regarding responses to specific events are rarely available.

It is clear from the literature that there is no "one way" to cope or even cope well with a significant personal loss (Silver & Wortman, 1980). Further exploration of factors which have an hypothesized effect on coping and grief responses is necessary to gain a deeper understanding of this complex concept.

Generally one compares findings with other researchers' findings, however, there have not been any other tests of this theory. Therefore, comparisons were curtailed.

Significance to Mental Health Nursing

The ability to identify and assess individual difficulties and to institute effective intervention is basic to advanced practice in Mental Health Nursing. Based on the findings herein, questions of ethicality arise regarding the implementation of Bugen's (1977) suggestions for intervention with bereaved individuals. Many participants in this study held firm causal attributions of preventability regarding the death as long as three years after the loss. These causal attributions or beliefs were associated with high levels of mental distress and only moderate levels of recovery. Therefore questions of how this attribution could be

changed, as well as an examination of the ethicality of doing so arise. The holding of the belief of preventability regarding the death may indicate an unresolved search for meaning on the part of the bereaved. Therefore, interventions which can be recommended based on findings of this study are limited until further assessment is undertaken.

This study was a partial test of Bugen's theory. Therefore there were no data on how other variables may covary with the variable of the attribution of preventability. Findings related to other variables are available in the comprehensive study (Murphy, 1982a). Other issues pertinent to this topic such as, concurrent events, social support, or time in the life cycle were not explored in this study, which was theory-testing.

Limitations

Limitations of this study include the initial small sample size and subsequent attrition rate of 28%, the difficulty in generalizing to other types of bereaved populations, the inability to trace changes in attribution with changes in centrality/peripherality perspectives, and measurement issues. No available data about the centrality of the relationship at T-2 made it impossible to trace changes in beliefs of preventability/unpreventability of the death event or the centrality/peripherality beliefs across time. Moreover, the composite of SCL-90-R items selected for analysis may not have captured the

entire domain of distress present in a high risk bereaved population, even though those selected have been consistently documented in the literature. Finally the self-rated recovery measure was a single item. Single items are not considered as reliable as multi-item scales.

CHAPTER V:

Summary

This secondary data analysis of Murphy's (1982a) longitudinal exploratory study was designed to test Bugen's theory regarding the effects of two grief variables, a belief of preventability or nonpreventability and centrality/peripherality, on the length and intensity of the grief response in bereaved individuals. Since Murphy's study contained data on only those whose self-rating indicated that they were in a central relationship with the deceased, the peripherality portion of the theory was not tested.

This study tested the hypothesis that bereaved persons who perceive a central relationship with the deceased and believe the circumstances of the death were preventable, will demonstrate a longer and more intense grief response when compared to bereaved persons who also perceive relationship centrality, but view the circumstances of the death as unpreventable. A vulnerability model served as the conceptual basis for the study. Following a traumatic life event, persons make causal attributions that interact with other factors which affect both objective and subjective measures of health outcomes.

A review and critique of the current literature included the duration and intensity aspects of grief responses, as well as

typical and atypical grief responses and their sequelae. Resolution time of grief responses was demonstrated to be unpredictable and affected by multiple factors. Several instruments to assess grief and predict outcomes were examined including the SCL-90-R.

In undertaking secondary analysis of Murphy's (1981) data, conceptual definitions of grief, bereavement, and brief and prolonged grief responses were generated. The sample for analyses was the bereaved group from Murphy's longitudinal study in which data were collected one and three years following a natural disaster. Computer analyses of data from the sample were carried out, after dividing participants into groups according to their attributions of preventability.

Indicators used for analysis were: the type of relationship between the bereaved and the deceased, central or peripheral; the perception of the death as having been preventable or unpreventable; and the degree of morbidity identified by subjects. Morbidity was identified as the duration of mental distress symptoms and self-rated recovery 11 and 35 months after the death event. Measurement of these symptoms was accomplished by evaluation of each individual (n = 49) on five subscales of the SCL-90-R (somatization, obsessive-compulsive, depression, anxiety, hostility) and configural items. These scales were selected based on their concurrence with grief symptomatology as described in the literature and verified by a panel of bereavement experts.

To determine internal consistency reliability of the SCL-90-R composite scale, coefficient alpha was computed for both the 1981 and 1983 data collections (T-1 and T-2). The coefficient alpha estimates were .96 for both Murphy's (1982a) total sample (n = 177) and the bereaved group (n = 49) in both 1981 and 1983. Inter-item correlations across T-1 and T-2 were also consistent, substantiating construct validity for the selected subscales.

T-tests at T-1 and T-2 as well as a two-way ANOVA were computed in order to test the hypothesis. Statistically significant differences on t -values between groups were found only on the obsessive-compulsive scale. All other between group t -tests were not significant at T-1 or T-2. This may have been due in part to the fact that the first data collection was instituted at 11 months post-bereavement. Scores from persons who held preventability beliefs may have been even higher, discriminating between sub-groups on the intensity component. Within group t -tests were statistically significant on 4 of the 5 scales. The composite scale scores for both bereaved sub-groups were significant at $p < .001$ and demonstrated a consistent decrease in reported symptamology between T-1 and T-2.

Data analysis of those bereaved who held beliefs of unpreventability of the deaths demonstrated a significant ($p < .05$) improvement in self rated recovery from T-1 to T-2. However, analysis of those holding beliefs of preventability regarding the deaths showed only a slight (nonsignificant) improvement.

Moreover, all the bereaved reported intense and prolonged grief responses, regardless of attributions of preventability.

The two-way ANOVA results indicated no significant differences between subjects attributions of preventability/unpreventability; however, statistically significant results were demonstrated on the within groups factor, indicating significant change over time.

The study hypothesis and Bugen's (1977) theory as tested were only partially supported by findings of this study. Two reasons are plausible. First, multiple factors are likely to account for the grief responses reported. Second, there were no subjects to test for peripheral relationships. Even though Bugen suggested that preventability was the single most important variable in predicting grief response, it may be necessary to use both aspects of the theory matrix to test and rate differences. Implications of this study for nursing, as well as other disciplines, is unclear due to the ethicality issues surrounding Bugen's suggested interventions.

Limitations of this study include the initial small sample size and subsequent attrition rate of 28%, the difficulty in generalizing to other types of bereaved populations, and the inability to trace changes in attribution with changes in centrality/peripherality perspectives, and measurement issues.

Considerations for future research include examining Bugen's theory in its entirity with data being collected earlier at T-1 to

determine if the hypothesized relationships emerge. Examination of the composite SCL-90-R with other types of bereaved populations in an effort to move toward a widely applicable measurement tool, would seem appropriate based on its high reliability as demonstrated in this study.

References

American Nurse's Association. (1980). A social policy statement. Kansas City, MO: ANA.

American Nurse's Association. (1982). Standards of psychiatric and mental health nursing practice. Kansas City, Mo: ANA.

Auspurger, R. (1978). Grief resolution among recent spouse-bereaved individuals. Dissertation Abstracts Internationals, 38, 5534.

Averill, J. (1968). Grief: Its nature and significance. Psychological Bulletin, 70, 721-748.

Barrett, C.J., & Schneweis, K.M. (1980-81). An empirical search for stages of widowhood. Omega, 11, 97-104.

Beck, A.T. (1967). Depression: Clinical, experimental, and theoretical aspects. NY: Harper & Row.

Blauner, R. (1966). Death and social structure. Psychiatry, 29, 378-394.

Bornstein, P. Clayton, P., Halikos, J., Maurice, W., & Robins, E. (1973). The depression of widowhood after 13 months. British Journal of Psychiatry, 122, 561-566.

Bowlby, J. (1961). Process of mourning. International Journal of Psychoanalysis, 42, 317-340.

Bowlby, J., & Parkes, C.M. (1970). Separation and loss within the family. In E. Anthony and C. Koupernak (Eds.), International yearbook for child psychiatry and allied disciplines (pp. 197-216). NY: Wiley & Sons.

Bromet, E., Schullberg, H., & Dunn, L. (1982). Reactions of psychiatric patients to the Three Mile Island nuclear accident. Archives of General Psychiatry, 39, 725-730.

Bugen, L. (1977). Human grief: A model for prediction and intervention. American Journal of Orthopsychiatry, 47, 196-206.

Clayton, P.J. (1978). Mortality of bereavement: Letter. Psychosomatic Medicine, 40, 435-437.

Cowan, M.E. (1982). Identification of the high risk bereaved of the Mt. St. Helen's disaster. Unpublished masters thesis, Oregon Health Sciences University, Portland, OR.

Cowan, M.E. & Murphy, S.A. (1985). Identification of postdisaster bereavement risk predictors. Nursing Research, 34, 71-75.

Derogatis, L. (1977). SCL-90-R administration, scoring & procedures manual - I, for the revised version and other instruments of the psychopathology rating scale series. Baltimore: Clinical Psychometric Research.

Derogatis, L. Description and bibliography for the SCL-90-R, from L. Derogatis, July 15, 1981.

Evanson, R., Holland, R., Mehta, S., & Yasin, F. (1980). Factor analysis of the Symptom Checklist 90. Psychological Reports, 46, 695-699.

Faschingbauer, T.R., DeVaul, R.A., & Zisook, S. (1977). Development of the Texas Inventory of Grief. American Journal of Psychiatry, 134, 696-698.

Glick, I., Weiss, R., & Parkes, C. (1974). The first year of bereavement. NY: Wiley & Sons.

Hauser, M. (1983). Bereavement outcomes for widows. Journal of Psychosocial Nursing and Mental Health Services, 21, 23-31.

Hoffman, N., & Overall, P. (1978). Factor structure of the SCL-90 in a psychiatric population. Journal of Consulting and Clinical Psychology, 46, 1187-1191.

Holmes, T., & Rahe, R. (1967). The social readjustment rating scales. Journal of Psychosomatic Research, 11, 213-218.

Horowitz, M.J., Krupnick, J., & Kaltreider, N. (1981). Initial psychological response to parental death. Archives of General Psychiatry, 38, 316-323.

Horowitz, M.J., Wilner, N., Kaltreider, N., & Alvarez, W. (1980). Signs and symptoms of post-traumatic stress disorder. Archives of General Psychiatry, 37, 85-92.

Jacobs, S., & Douglas, L. (1979). Grief: A mediating process between a loss and illness. Comprehensive Psychiatry, 20, 165-176.

Jacobs, P., Doft, E., & Koger, J. (1981). A study of SCL-90 scores of 264 methadone patients in treatment. The International Journal of the Addictions, 16, 541-548.

Kavanaugh, R. (1972). Facing death. Baltimore: Penguin Books.

Keller, S.E., Stein, M., & Camerino, M.S. (1980). Suppression of lymphocyte stimulation by anterior hypothalmic lesions in the guinea pig. Cell Immunity, 53, 334-340.

Kiger, J. (1984). A reliability assessment of the SCL-90-R using a longitudinal natural disaster bereaved sample. Unpublished master's thesis, Oregon Health Sciences University, Portland, OR.

Kiger, J. & Murphy, S.A. (in press). Reliability assessment of the SCL-90-R using a longitudinal bereaved disaster population. Western Jounal of Nursing Research.

Kirsching, J.M. (1984). Social support and coping in the recently widowed. Unpublished Doctoral Dissertation, Indiana University, Indianapolis, IN.

Kubler-Ross, E. (1969). On death and dying. NY: MacMillan.

Lazarus, R.S., & Folkman, S. (1984). Stress, appraisal, and coping. NY: Springer.

Lindemann, E. (1944). Symptomatology and management of acute grief. American Journal of Psychiatry, 101, 141-148.

Lopata, H.Z. (1973). Widowhood in an American city. Cambridge, MA: Schenkman.

Marris, P. (1958). Widows and their families. London: Routledge and Kegan.

Marris, P. (1974). Loss and change. NY: Random House.

Murphy, S.A. (1982a). Coping with stress following a natural disaster: The volcanic eruption of Mt. St. Helen's. Dissertation Abstracts International,

42, 10B, p. 4014. (University microfilm no. 82-07, 736).

Murphy, S.A. (1982b). Learned helplessness: From concept to comprehension. Perspectives in Psychiatric Care, 20, 27-32.

Murphy, S.A. (1983). Theoretical perspectives on bereavement. In P.L. Chinn (Ed.), Advances in nursing theory development (pp. 191-206). Rockville, MD: Aspens Systems.

Murphy, S.A. (1984). Stress levels and health status of victims of a natural disaster. Research in Nursing and Health, 7, 205-215.

Murphy, S.A. (in press). Health and recovery status of natural disaster victims one and three years later. Research in Nursing and Health.

Parkes, C.M. (1972). Bereavement: Studies of Grief in Adult Life. NY: International Universities Press.

Parkes, C.M. (1975a). Determinants of outcome following bereavement. Omega, 6 (4), 303-323.

Parkes, C.M. (1975b). Unexpected and untimely bereavement. In B. Schoenberg, I. Gerber, A. Wiener, A. Kutscher, D. Perez, A. Carr (Eds.), Bereavement: Its psychosocial aspects (pp.). NY: Columbia University Press.

Polit, D., & Hungler, B. (1983). Nursing research - principles and methods. Philadelphia: Lippincott.

Raphael, B. (1977). Preventative intervention with recently bereaved. Archives of General Psychiatry, 34, 1450-1454.

Rees, W., & Lutkins, S. (1967). Mortality of bereavement. British Medical Journal, 4, 13-16.

Roberts-Thompson, I.C., Whittingham, S., & Youngchaiyud, U. (1974). Aging, immune response, and mortality. Lancet, 2, 368-370.

Sarason, I., Johnson, J., & Siegel, J. (1978). Assessing the impact of life changes: Development of the life experiences survey. Journal of Consulting and Clinical Psychology, 46, 932-946.

Sanders, C.M., Mauger, P.A., & Strong, P.N. (1979). A manual for the grief experiences inventory.

Schleifer, S., Keller, S., Camerino, M., Thornton, J., & Stein, M. (1983). Suppression of lymphocyte stimulation following bereavement. Journal of the American Medical Association, 250, 374-377.

Schwab, J., Chalmers, J., Conroy, s., Farris, P., & Markush, R. (1975). Studies in grief: A preliminary report. In B. Schoenberg, I. Gerber, A. Wiener, A. Kutscher, D. Perez, A. Carr (Eds.), Bereavement: Its psychosocial aspects (pp.). NY: Columbia University Press.

Silver, R., & Wortman, C. (1980). Coping with undesirable life events. In J. Garber & M. Seligman (Eds.), Human helplessness: Theory and applications (pp. 279-341). NY: Academic Press.

Silverman, P., & Cooperband, A. (1975). On widowhood: Mutual help and the elderly widow. Journal of Geriatric Psychiatry, 8, 9-40.

Silverman, P.R. (1981). Helping women cope with grief. Beverly Hills: Sage Publications.

Singh, B., & Raphael, B. (1981). Post disaster morbidity of the bereaved. A possible role for preventative psychiatry? The Journal of Nervous and Mental Disease, 169, 203-212.

Stein, M., Schleifer, S.J., & Keller, S.E. (1980). Immune disorders. In H.I. Kaplan, A.M. Freedman, B.J. Sadock (Eds.), Comprehensive textbook of psychiatry (pp. 1961-1972). Baltimore: Williams & Wilkins.

Vachon, M.L. (1976). Grief and bereavement following the death of a spouse. Canadian Psychiatric Association Journal, 21, 35-43.

Vachon, M.L. (1979). The importance of social support in the longitudinal adaptation to bereavement and breast cancer. Paper presented at the meeting of the American Psychological Association. NY: September.

Vachon, M.L., Formo, A., Freedman, K., Lyall, W.A., Rogers, J., & Freeman, S.J. (1976). Stress reactions to bereavement. Essence, 1 (1), 23-31.

Vachon, M.L., Rogers, J., Lyall, W.A., Lancee, W.J., Sheldon, A.R., & Freeman, S.J. (1982). Predictors and correlates of adaptation to conjugal bereavement. American Journal of Psychiatry, 139, (8), 998-1002.

Waltz, C., & Bausell, R. (1983). Nursing research. Philadelphia: Davis.

Weiner, A., Gerber, I., Bottin, D., & Arkin, A. (1975). The process and phenomenology of bereavement. In B. Schoenberg, I. Gerber, A. Weiner, A. Kutscher, D. Peretz, A. Carr (Eds.), Bereavement: Its psychosocial aspects (pp.). NY: Columbia University Press.

Weisman, A. (1973). Coping with untimely death. Psychiatry, 36, 366-379.

Winer, B.J. (1971). Statistical principles in experimental design. NY: McGraw-Hill.

Zisook, S., & DeVaul, R.A. (1983). Grief, unresolved grief, and depression. Psychosomatics, 24 (3), 247-256.

Zisook, S., DeVaul, R.A., & Click, M.A. (1982). Measuring symptoms of grief and bereavement. American Journal of Psychiatry, 139, 1590-1593.

APPENDIX

SCL-90-R: COMPUTATION OF FACTOR SCORES

SOMATIZATION

ITEM		SCORE
HEADACHES	1	
FAINTNESS OR DIZZINESS	4	
PAINS IN HEART OR CHEST	12	
PAINS IN LOWER BACK	34	
NAUSEA OR UPSET STOMACH	40	
SORENESS OF YOUR MUSCLES	43	
TROUBLE GETTING YOUR BREATH	48	
HOT OR COLD SPELLS	49	
NUMBNESS OR TINGLING IN PARTS OF YOUR BODY	52	
A LUMP IN YOUR THROAT	53	
FEELING WEAK IN PARTS OF YOUR BODY	56	
HEAVY FEELINGS IN YOUR ARMS OR LEGS	58	

TOTAL ITEM SCORE / 12

OBSESSIVE-COMPULSIVE

ITEM		SCORE
3. REPEATED UNPLEASANT THOUGHTS THAT WON'T LEAVE YOUR MIND	3	
9. TROUBLE REMEMBERING THINGS	9	
10. WORRIED ABOUT SLOPPINESS OR CARELESSNESS	10	
28. FEELING BLOCKED IN GETTING THINGS DONE	28	
38. HAVING TO DO THINGS VERY SLOWLY TO INSURE CORRECTNESS	38	
45. HAVING TO CHECK AND DOUBLE CHECK WHAT YOU DO	45	
46. DIFFICULTY MAKING DECISIONS	46	
51. YOUR MIND GOING BLANK	51	
55. TROUBLE CONCENTRATING	55	
65. HAVING TO REPEAT THE SAME ACTIONS SUCH AS TOUCHING, COUNTING, WASHING	65	

TOTAL ITEM SCORE / 10

INTERPERSONAL SENSITIVITY

ITEM		SCORE
6. FEELING CRITICAL OF OTHERS	6	
21. FEELING SHY OR UNEASY WITH THE OPPOSITE SEX	21	
34. YOUR FEELINGS BEING EASILY HURT	34	
36. FEELING OTHERS DO NOT UNDERSTAND YOU OR ARE UNSYMPATHETIC	36	
37. FEELING THAT PEOPLE ARE UNFRIENDLY OR DISLIKE YOU	37	
41. FEELING INFERIOR TO OTHERS	41	
61. FEELING UNEASY WHEN PEOPLE ARE WATCHING OR TALKING ABOUT YOU	61	
69. FEELING VERY SELF-CONSCIOUS WITH OTHERS	69	
73. FEELING UNCOMFORTABLE ABOUT EATING OR DRINKING IN PUBLIC	73	

TOTAL ITEM SCORE / 9

DEPRESSION

5. LOSS OF SEXUAL INTEREST OR PLEASURE	5	
14. FEELING LOW IN ENERGY OR SLOWED DOWN	14	
15. THOUGHTS OF ENDING YOUR LIFE	15	
20. CRYING EASILY	20	
22. FEELING OF BEING CAUGHT OR TRAPPED	22	
26. BLAMING YOURSELF FOR THINGS	26	
29. FEELING LONELY	29	
30. FEELING BLUE	30	
31. WORRYING TOO MUCH ABOUT THINGS	31	
32. FEELING NO INTEREST IN THINGS	32	
54. FEELING HOPELESS ABOUT THE FUTURE	54	
71. FEELING EVERYTHING IS AN EFFORT	71	
79. FEELINGS OF WORTHLESSNESS	79	

TOTAL ITEM SCORE / 13

ANXIETY

2. NERVOUSNESS OR SHAKINESS INSIDE	2	
17. TREMBLING	17	
23. SUDDENLY SCARED FOR NO REASON	23	
33. FEELING FEARFUL	33	
39. HEART POUNDING OR RACING	39	
57. FEELING TENSE OR KEYED UP	57	
72. SPELLS OF TERROR OR PANIC	72	
78. FEELING SO RESTLESS YOU COULDN'T SIT STILL	78	
80. THE FEELING THAT SOMETHING BAD IS GOING TO HAPPEN TO YOU	80	
86. THOUGHTS AND IMAGES OF A FRIGHTENING NATURE	86	

TOTAL ITEM SCORE / 10

HOSTILITY

11. FEELING EASILY ANNOYED OR IRRITATED	11	
24. TEMPER OUTBURSTS THAT YOU COULD NOT CONTROL	24	
63. HAVING URGES TO BEAT, INJURE, OR HARM SOMEONE	63	
67. HAVING URGES TO BREAK OR SMASH THINGS	67	
74. GETTING INTO FREQUENT ARGUMENTS	74	
81. SHOUTING OR THROWING THINGS	81	

TOTAL ITEM SCORE / 6

PHOBIC ANXIETY

13. FEELING AFRAID IN OPEN SPACES OR IN THE STREETS	13	
25. FEELING AFRAID TO GO OUT OF YOUR HOUSE ALONE	25	
47. FEELING AFRAID TO TRAVEL ON BUSES, SUBWAYS, OR TRAINS	47	
50. HAVING TO AVOID CERTAIN THINGS PLACES, OR ACTIVITIES BECAUSE THEY FRIGHTEN YOU	50	
70. FEELING UNEASY IN CROWDS, SUCH AS SHOPPING OR AT A MOVIE	70	
75. FEELING NERVOUS WHEN YOU ARE LEFT ALONE	75	
82. FEELING AFRAID YOU WILL FAINT IN PUBLIC	82	

TOTAL ITEM SCORE / 7

PARANOID IDEATION

8. FEELING OTHERS ARE TO BLAME FOR MOST OF YOUR TROUBLES	8	
18. FEELING THAT MOST PEOPLE CAN NOT BE TRUSTED	18	
43. FEELING THAT YOU ARE WATCHED OR TALKED ABOUT BY OTHERS	43	
68. HAVING IDEAS OR BELIEFS THAT OTHERS DO NOT SHARE	68	
76. OTHERS NOT GIVING YOU PROPER CREDIT FOR YOUR ACHIEVEMENTS	76	
83. FEELING THAT PEOPLE WILL TAKE ADVANTAGE OF YOU IF YOU LET THEM	83	

TOTAL ITEM SCORE / 6

PSYCHOTICISM

7. THE IDEA THAT SOMEONE ELSE CAN CONTROL YOUR THOUGHTS	7	
16. HEARING VOICES THAT OTHER PEOPLE DO NOT HEAR	16	
35. OTHER PEOPLE BEING AWARE OF YOUR PRIVATE THOUGHTS	35	
62. HAVING THOUGHTS THAT ARE NOT YOUR OWN	62	
77. FEELING LONELY EVEN WHEN YOU ARE WITH PEOPLE	77	
84. HAVING THOUGHTS ABOUT SEX THAT BOTHER YOU A LOT	84	
85. THE IDEA THAT YOU SHOULD BE PUNISHED FOR YOUR SINS	85	
87. THE IDEA THAT SOMETHING SERIOUS IS WRONG WITH YOUR BODY	87	
88. NEVER FEELING CLOSE TO OTHER PERSON	88	
90. THE IDEA THAT SOMETHING IS WRONG WITH YOUR MIND	90	

TOTAL ITEM SCORE / 10

ADDITIONAL ITEMS

19. POOR APPETITE	19	
60. OVEREATING	60	
44. TROUBLE FALLING ASLEEP	44	
59. AWAKENING IN THE EARLY MORNING	59	
66. SLEEP THAT IS RESTLESS OR DISTURBED	66	
89. THOUGHTS OF DEATH OR DYING	89	
89. FEELINGS OF GUILT	89	

SYMPTOM	TOTAL	N	RAW SCORES
SOMATIZATION			
OBSESS-COMPULSIVE			
INTER SENSITIVITY			
DEPRESSION			
ANXIETY			
HOSTILITY			
PHOBIC ANXIETY			
PARANOID IDEATION			
PSYCHOTICISM			
ADDITIONAL			

GLOBAL SCORES

GRAND TOTAL ☐

1 GSI (GRAND TOTAL/90) 1 _____

2 PST 2 _____

3 PSDI (GT/PST) 3 _____

ABSTRACT

Nurses in all clinical practice settings come in contact with those who have suffered the loss of a significant other. They are often the health professionals most available to identify and assess individual difficulties and institute interventions. The use of effective intervention strategies with persons experiencing abnormal, delayed, or unresolved grief responses can help reduce the psychiatric morbidity in this population. In light of the desirability of using interventions which have a sound theoretical base and have been researched across a variety of populations, a partial test of Bugen's (1977) hypothesis was undertaken. This study tested the hypothesis that bereaved persons who perceive a central relationship with the deceased and believe the circumstances of the death were preventable, will demonstrate a longer and more intense grief response when compared to bereaved persons who also perceive relationship centrality, but view the circumstances of the death as unpreventable. To this end, a secondary analysis of the data from Murphy's (1982a) longitudinal exploratory study of those bereaved following a natural disaster (the eruption of Mt. St. Helen's in Washington State) was done.

Indicators used for analysis were: the type of relationship between the bereaved and the deceased, central or peripheral; the perception of the death as having been preventable ($\underline{n}$ = 21) or unpreventable ($\underline{n}$ = 28) ; and the degree of morbidity identified by

the subjects. Morbidity was identified as the duration of mental distress symptoms and self-rated recovery 11 and 35 months after the death event. Measurement of these symptoms was accomplished by evaluation of each individual (n = 49) on five subscales of the Symptom Checklist 90 - Revised (Derogatis, 1977). These scales were selected based on their concurrence with grief symptomatology as described in the literature.

The results of the data analyses partially supported Bugen's (1977) theory of grief responses in bereaved individuals in that both attribution groups were well above control group levels of mental distress, thus indicating prolonged and intense responses. Significant decreases in mental distress were noted for both groups over time; however, those bereaved who held beliefs of unpreventability of the deaths demonstrated a significant improvement in self-rated recovery from 1981 to 1983, while those holding beliefs of preventability regarding the deaths showed only a slight (nonsignificant) improvement.

General implications for nursing practice forthcoming from this study include the need for an increased awareness on the part of caregivers regarding the unique needs of those bereaved as the result of a natural disaster. Many participants in this study held firm causal attributions of preventability regarding the death as long as three years after the loss. These causal attributions or beliefs were associated with high levels of mental distress and only moderate levels of recovery.

Considerations for future research include examining Bugen's theory in its entirity, as well as with a variety of populations. Examination of the composite SCL-90-R with other types of bereaved populations in an effort to move toward a widely acceptable measurement tool, would seem appropriate based on the high reliability demonstrated in this study.