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Steven E. Bailey  
*University of Windsor*

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**PERSONALITY AND GRIEVING IN A UNIVERSITY STUDENT POPULATION**

by

**Steven E. Bailey**

**B.A. (Hons.) University of Manitoba, 1992**

**M.A. University of Windsor, 1994**

**A Dissertation**

**Submitted to the College of Graduate Studies and Research  
through the Department of Psychology  
in Partial Fulfillment of the Requirements for  
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**1999**

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## ABSTRACT

Many factors have been identified that affect the nature and/or intensity of a bereaved persons grief reactions after the death of a known other. One such factor, the “personality” of the bereaved individual, has been implicated in many of the prominent theories of grief and mourning. However, despite the intuitive connection between personality and grief, and the ample theoretical consideration give to this relationship, little systematic research yet exists which elucidates the role of the bereaved person’s personality traits as co-determinants of their experienced grief.

In order to investigate the relationship between personality, conceptualized in trait terms, and grief experiences following the death of a known other, a between-subjects correlational design was employed. College students ( $N = 170$ ) who were bereaved within the past three years completed a questionnaire package consisting of the Grief Experience Inventory (GEI; Sanders, Mauger, & Strong, 1985), the Grief Experience Questionnaire (GEQ; Barrett & Scott, 1989), an expanded version of the NEO - Five Factor Inventory (Costa & McCrae, 1992), the Personality Diagnostic Questionnaire - 4+ (Hyler, 1994), and a series of questions assessing additional aspects of grief and circumstances surrounding the loss.

A principal components analysis of the scales of the GEI and GEQ yielded a three-component solution (i.e., internalized distress reactions, stigmatized grief, and existential anxiety). Hierarchical multiple regression analyses on these grief components indicated that both normal-range personality traits (i.e., neuroticism and agreeableness) and “pathological” personality styles (i.e., borderline, schizoid, and narcissistic) were significant predictors of grief. Additional variables that demonstrated significant associations with the grief dimensions were (a) closeness of the relationship, (b) the “impactfulness” of the loss, (c) sex of respondent, (d) respondent obtaining professional help after the death, and (e) respondent belief that they could have prevented the death.

**These results underscore the notion that grief is a multidimensional and multidetermined entity, and that personality traits are but one of the multitude of factors that may interact in complex ways to affect the grief experience. Results also suggest that person factors be more fully considered in future research attempts to explicate the factors that operate to shape adaptation after important loss events. When working clinically to assist bereaved persons, the assessment of premorbid personality functioning will add important knowledge to assist in the process of case conceptualization, treatment planning, and/or service provision.**

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## TABLE OF CONTENTS

	Page
<b>ABSTRACT</b>	iii
<b>ACKNOWLEDGMENTS</b>	v
<b>LIST OF TABLES</b>	ix
<b>CHAPTER</b>	
<b>I. INTRODUCTION AND LITERATURE REVIEW</b>	
General Overview	1
Definition of Grief-Related Terms	2
Bereavement	2
Grief	4
Mourning	5
More on the Concept of Grief	7
Grief in Adolescents/Young Adults	10
Personality	13
Personality Disorders	19
Putting Personality in Context	22
Personality and Grief	23
Theoretical and conceptual contributions	24
Empirical findings	31
The Relationship Between Pre- and Post-Loss Personality	40
Summary and Conclusions	43
Statement of Rationale and Research Questions	45
Hypotheses	45
<b>II. METHOD</b>	
Research Design	47
Participants	47
Participant demographic characteristics	47
Measures	48
NEO Five-Factor Inventory - Expanded Form (NEO-FFI)	48
Personality Diagnostic Questionnaire-4+ (PDQ-4+)	49
Grief Experience Inventory (GEI)	51
Grief Experience Questionnaire (GEQ)	52
Author-devised questionnaire	53
Summary of Variables Measured	55
Procedure	55
Statistical Power	56
Overview of Data Analysis	56
Preliminary data screening	56

	Page
Preliminary analyses	57
Primary analyses	57
<b>III. RESULTS</b>	
<b>Preliminary Data Screening</b>	<b>60</b>
Accuracy of data input, missing data, and distributions	60
Replacing missing data: Standardized measures	60
Replacing missing data: Variables from author-devised questionnaire	61
Skewness and kurtosis	61
Outliers among dichotomous variables	62
Outliers among continuous variables	65
<b>Preliminary Analyses</b>	<b>65</b>
Decedent-related demographic characteristics	65
Bereavement-related characteristics of participants	65
Relational characteristics between participants and decedents	67
Respondent evaluation of the impact of their participation	67
Standardized measures	68
<b>Primary Analyses</b>	<b>71</b>
Bivariate correlations	71
Principal components analysis of grief scales	79
<b>Examining the Data for Significant Covariates</b>	<b>82</b>
<b>Hierarchical Multiple Regression Analyses</b>	<b>87</b>
Evaluation of assumptions	87
Ratio of cases to independent variables	87
Missing data	87
Normality, linearity, and homoscedasticity of residuals	87
Outliers	88
Multicollinearity and singularity	89
Evaluating the “importance” of predictor variables	89
<b>Hierarchical Multiple Regression Models</b>	<b>90</b>
<b>Grief Component I: Internalized Distress Reaction</b>	<b>90</b>
Regression model 1: Grief Component I with NEO personality traits	90
Regression model 2: Grief Component I with Neuroticism facet scales	90
Regression model 3: Grief Component I with PDQ personality styles	91
<b>Grief Component II: Stigmatized Grief</b>	<b>91</b>
Regression model 4: Grief Component II with NEO personality traits	91
Regression model 5: Grief Component II with PDQ personality styles	92
<b>Grief Component III: Existential Anxiety</b>	<b>93</b>
Regression model 6: Grief Component III with NEO personality traits	93
Regression model 7: Grief Component III with PDQ personality styles	93

	Page
<b>IV. DISCUSSION</b>	101
<b>Summary of Findings</b>	101
<b>Grief Component I: “Internalized Distress”</b>	101
<b>Grief Component II: “Stigmatized Grief”</b>	106
<b>Grief Component III: “Existential Anxiety”</b>	109
<b>Additional Findings</b>	110
<b>The multidimensionality of grief responses</b>	110
<b>Grief in Adolescents/Young Adults</b>	112
<b>Theoretical Implications</b>	115
<b>Applied Implications</b>	115
<b>Limitations of the Present Study</b>	117
<b>Measurement Issues and Associated Research Implications</b>	119
<b>Future Directions</b>	120
<b>REFERENCES</b>	124
<b>APPENDIX A: NEO PI-R Domain and (Neuroticism) Facet Scale Descriptions</b>	143
<b>APPENDIX B: PDQ-4+ Scale Descriptions</b>	146
<b>APPENDIX C: Grief Experience Inventory (GEI) Scale Descriptions</b>	149
<b>APPENDIX D: Grief Experience Questionnaire (GEQ) Scale Descriptions</b>	150
<b>APPENDIX E: Author-Devised Questionnaire</b>	153
<b>APPENDIX F: Master List of All Variables Assessed, the Nature of Each Variable (IV, DV, Demographic; Categorical or Continuous Data) and Questionnaire Derived From</b>	159
<b>APPENDIX G: Consent Form</b>	163
<b>APPENDIX H: Model 1: Summary of Significant Variables in Multiple Regression Predicting Grief Component I from Normal-Range Traits</b>	164
<b>APPENDIX I: Model 3: Summary of Significant Variables in Multiple Regression Predicting Grief Component I from Personality Styles</b>	165
<b>APPENDIX J: Model 4: Summary of Significant Variables in Multiple Regression Predicting Grief Component II from Normal-Range Traits</b>	166
<b>APPENDIX K: Model 5: Summary of Significant Variables in Multiple Regression Predicting Grief Component II from Personality Styles</b>	167
<b>APPENDIX L: Model 6: Summary of Significant Variables in Multiple Regression Predicting Grief Component III from Normal-Range Traits</b>	168
<b>APPENDIX M: Model 7: Summary of Significant Variables in Multiple Regression Predicting Grief Component III from Personality Styles</b>	169
<b>VITA AUCTORIS</b>	170

## LIST OF TABLES

Table		Page
1	Non Personality Related Variables (i.e., potential covariates)	54
2	Skewness and Kurtosis of Outcome Measures (GEI, GEQ), Personality Variables (NEO, PDQ-4+), and Potential Covariates Before and After Transformations	63
3	Descriptive Statistics and Coefficient Alpha Values for Personality Measures: The NEO Scales and the Personality Diagnostic Questionnaire-4: (PDQ-4+)	69
4	Descriptive Statistics and Coefficient Alpha Values for Outcome Measures: The Grief Experience Questionnaire (GEQ) and the Grief Experience Inventory (GEI)	70
5	Intercorrelation Matrix of Dependent Measures: Grief Experience Inventory (GEI) Scale Scores and Grief Experience Questionnaire (GEQ) Scale Scores	72
6	Intercorrelation Matrix of Independent Variables: NEO Domain and Facet Scale Scores and Personality Diagnostic Questionnaire-4+ (PDQ-4+) Scale Scores	74
7	Intercorrelation Matrix of Potential Covariates	76
8	Three-Factor Matrix After Varimax Rotation for the Scales of the Grief Experience Inventory (GEI) and the Grief Experience Questionnaire (GEQ)	81
9	Correlations Between Grief Components (I, II, and III), IVs, and Potential Covariates	84
10	Correlations Between Covariates and Independent Variables	86
11	Model 1: Summary of Hierarchical Regression Predicting Grief Component I from Normal-Range Personality Traits ( $n = 163$ )	94

<b>Table</b>		<b>Page</b>
12	<b>Model 2: Summary of Hierarchical Regression Predicting Grief Component I from Neuroticism Facet Scales (<math>n = 163</math>)</b>	95
13	<b>Model 3: Summary of Hierarchical Regression Predicting Grief Component I from Personality Styles (<math>n = 161</math>)</b>	96
14	<b>Model 4: Summary of Hierarchical Regression Predicting Grief Component II from Normal-Range Personality Traits (<math>n = 163</math>)</b>	97
15	<b>Model 5: Summary of Hierarchical Regression Predicting Grief Component II from Personality Traits (<math>n = 161</math>)</b>	98
16	<b>Model 6: Summary of Hierarchical Regression Predicting Grief Component III from Normal-Range Personality Traits (<math>n = 163</math>)</b>	99
17	<b>Model 7: Summary of Hierarchical Regression Predicting Grief Component III from Personality Styles (<math>n = 162</math>)</b>	100

## CHAPTER 1

### INTRODUCTION AND LITERATURE REVIEW

**“Grief affects everyone, but unequally” (Sanders, 1988, p. 109).**

**“How is it that there is so wide a variety of patterns of response to bereavement? Why do some people recover spontaneously from the awfulness of loss, others only with help, and still others not at all?” (Parkes & Weiss, 1983, p. ix).**

**“It is difficult, therefore, to draw any conclusions about the importance of personality factors as moderators of bereavement reactions. This dearth of empirical evidence is surprising as most theories of bereavement predict personality-related differences in individual reactions to loss” (Stroebe & Stroebe, 1987, p. 198).**

#### **General Overview**

The purpose of this study was to investigate the association between the personality traits and styles of bereaved persons and the nature and intensity of their grief reactions following the death of a known other. Many who have written on the topic of grief have noted or alluded to the importance of personality variables on either (a) the nature and intensity of grief and/or (b) the outcome of bereavement (Campbell, Swank, & Vincent, 1991; Jacobsen, 1986; Meuser, Davies, & Marwit, 1995; Osterweis, Solomon, & Green, 1984; Rando, 1984, 1993; Sanders, 1979, 1988; Vachon et al., 1982a). However, empirical evidence remains sparse. The following can be expected in the review that follows. First, given the considerable lack of consensus regarding certain key terms as discussed in the bereavement literature (i.e., bereavement, grief, and mourning), these will be discussed and defined. Next, the symptomatology of grief and various “phase” models of grief will be outlined, and the experience of loss in adolescents and young adults will then be explored. The focus will then turn to personality, with a brief review of definitions of personality, and an explication of trait psychology, the five-factor model of personality traits, and personality disorders.

Various “risk factors” that appear to impinge on one’s reaction to loss will next be explored. From this, the scope will be narrowed further to examine in greater detail what is known about the association between “personality” and grief. This will be done by first reviewing the work of renowned grief theorists and then by examining relevant data-based studies. The relationship between pre- and post-bereavement personality will then be explored, followed by a summary of what is known about the relationships between personality functioning and grief. The introduction will close with the rationale, research question, and hypotheses for the present investigation.

### Definition of Grief-Related Terms

Regarding basic terminology, the terms bereavement, grief, and mourning form a network of closely related concepts which are often used interchangeably in everyday language (Dershimier, 1990; Stroebe & Strobe, 1987) and in scientific literature (Cleiren, 1993; Cowles & Rodgers, 1991; Dershimier, 1990; Rando, 1993; Sanders, 1989) even though they connote different attributes. These terms thus appear to lack a certainty and clarity of meaning. A brief examination of the way in which these terms have been defined in the literature will follow. For purposes of the present study, clearly the most pertinent among them is the term “grief.”

**Bereavement.** Of the terms noted above, bereavement seems to be the one which is defined most consistently in the literature, although even here some definitional variation is apparent. The Webster’s dictionary (1965) defined bereavement as “the state or fact of being bereaved [to deprive, especially by death; strip; dispossess]; deprivation; especially loss of a loved one by death” (p. 206). In a similar light, Cleiren (1993) differentiated between bereavement on the one hand and grief/mourning on the other by noting that the term bereavement refers to the loss event *per se* (i.e., the objective situation), whereas the terms grief and mourning refer to *processes* that take place after the loss event (see also Rando, 1993). Bereavement was thus defined by Cleiren synonymously with loss as “...the action of having something or someone go permanently out of one’s control, possession or environment” and implying “the irrevocable and definitive cessation of contact with a person” (p. 5). Kaplan, Sadock, and Grebb (1994) stated that bereavement “literally means the state of being deprived

of someone by death, and it refers to being in the state of mourning” (p. 80). Others have corroborated this understanding, using the term to refer to the objective situation of the individual who has experienced a loss (Corr, Nabe, & Corr, 1994; Lindemann, 1944; Rando, 1993; Stroebe & Stroebe, 1987).

Dershimer (1990) however, conceptualized bereavement as “the total recovery *process* [italics added] of humans from the death of someone with whom they had a significant relationship” (p. 17). Here, it is the process of dealing with the loss that is emphasized (akin to mourning as understood herein), a process which allows the bereaved to make fundamental changes across many areas of their lives.

Cleiren (1993) made an important distinction between terms that refer specifically to the loss (i.e., objective) situation (i.e., bereavement as understood herein) and those that refer to the person’s *experience* of the loss situation. He specifically noted that the extensions “-work” or “-process,” when added to the terms bereavement or grief, are reflective of processes that take place in the person after the loss. Thus, adding an extension after the word bereavement (e.g., -behavior, -process) significantly modifies the meaning of the term, moving it more into the realm of common conceptions of grief and/or mourning. Cleiren (1993) thus defined the *bereavement process* as the “cognitive, affective and behavioral changes in the bereaved individual after the loss” (p. 6). A complementary example of such usage was given by Averill (1968), who viewed bereavement *behavior* as “the total response pattern, psychological and physiological, displayed by an individual following the loss of a significant object, usually a loved one” (p. 712). Dershimer’s (1990) use of the word “process” in his definition of bereavement noted above thus seems to me to fall more in line with Cleiren’s “bereavement process” and Averill’s “bereavement behavior.”

In line with the many others who have used the term in a similar manner (see above), my preference will be to use the term bereavement to refer to the objective situation of the loss event itself, and then to speak of the terms “grief” and “mourning” as the “passive” (i.e., felt, experienced) and “active” processes, respectively, that occur in the experience of individuals after the loss event has been established. In this sense, bereavement is seen as the proximal cause of grief and mourning (Stroebe &



Stroebe, 1987).

A related term bearing brief elaboration is the term “bereaved,” which can refer to an individual as well as to a state of being. As this investigation is concerned only with human death as the loss event (as distinct from many other types of loss events of both tangible and symbolic nature, for example, loss of an animal companion, job, limb, lifelong dream, hope, etc.), the noun “bereaved” will be understood here to refer to the person who has experienced the loss of a close other through death (Cleiren, 1993).

Grief. There exists considerable vagueness and ambiguity in the literature as to what exactly the concept “grief” means (Cowles & Rodgers, 1991), although Dershimer (1990) believes that a “convergence on definitions” (p. 16) has recently taken place. In my understanding, the concept of grief most typically refers to the multitude of complex responses that follow a real or symbolic separation/loss, most usually the loss of a significant other through death (Cleiren, 1993; Dershimer, 1990; Rando, 1993; Sanders, 1988; Worden, 1991a). In addition to being a natural and universal human phenomenon (Cowles & Rodgers, 1991), grief is highly individualized (Cowles & Rodgers, 1991; Osterweis et al., 1984; Parkes, 1985; Rando, 1991, 1993; Worden, 1991a), multidimensional (Averill, 1968; Lindemann, 1944; Parkes, 1970; Shuchter & Zisook, 1987, 1993; Vargas, Loya, & Hodde-Vargas, 1989), and pervasive (Cowles & Rodgers, 1991; Shuchter & Zisook, 1993) in that it “affects all aspects of the survivor’s being” (Zisook, 1987, p. xii). These effects include multiple and interactive affective, behavioral, cognitive, existential, social, somatic, and spiritual components (Averill, 1968; Corr et al., 1994; Cowles & Rodgers, 1991; Dershimer, 1990; Lindemann, 1944; Rando, 1993; Sanders, 1988; Worden, 1991a; Yalom, 1980; Zisook & Shuchter, 1986). Further, grief is not to be understood as a state, but rather as a process (i.e., involving ever changing reactions) which evolves over time (Carter, 1989; Cowles & Rodgers, 1991; Dershimer, 1990; Parkes, 1972; Rando, 1993; Worden, 1991a; Zisook & Shuchter, 1986). A representative definition of grief that encompasses the above points was offered by Cowles and Rodgers (1991) who defined grief as “a dynamic, pervasive, highly individualized process with a strong normative component” (p. 121). Webster’s dictionary (1965), however, focused its definition on

the emotional aspect of response to loss in defining grief as “emotional suffering, pain, distress” (p. 999).

**Mourning.** The term *mourning* is also seen to have distinct meanings in the literature. In essence, the difference is between an emphasis on either (a) culturally defined manifestations, or (b) internal (intrapsychic) processes. Regarding the notion of external manifestations, Rando (1993) noted that a “traditional” (i.e., non-psychoanalytic) understanding of this term emphasizes “the cultural and/or public display of grief through one’s behaviors...as a vehicle for social communication” (p. 23). Averill (1968) saw mourning as a distinct aspect of bereavement behavior, stating that “...mourning, represents conventional behavior as determined by the mores and customs of the society” (p. 727). This emphasis, stressing the observable public expression dictated by one’s culture/society, is seen also in the writings of Sanders (1989) and Stroebe and Stroebe (1987).

Some authors prefer not to restrict the scope of the term to mean the observable reactions to a loss and direct their attention toward *processes* of the bereaved (internal and external) that facilitate the working through of the loss (see esp. Freud, 1917/1957). Corr et al. (1994) defined mourning to indicate “the processes of coping with loss and grief...[and that] designates the ways in which we learn to live with loss, bereavement, and grief” (p. 176). Rando (1993) differentiated grief from mourning by noting that grief entails the “passive reactions” felt after a loss, while mourning “demands working actively to adapt to the loss” (p. 23). She further spoke of mourning as entailing the conscious and unconscious processes that enable the bereaved to (a) undo the psychosocial ties which bind the mourner to the deceased, (b) adapt to the loss, and (c) learn how to live in a healthy way in the world without the deceased.

Worden (1991a) also saw mourning as demanding effort. In his view, this effort is necessary to accomplish the “tasks” that are required for adaptation to loss to occur. To sharply illustrate how mourning differs from grief, let us simply list the four tasks of mourning he outlines. As you read through these tasks, notice how they connote a far different meaning than that noted above in connection with grief. His tasks are (a) to accept the reality of the loss, (b) to work through the pain of grief, (c) to adjust to an

environment in which the deceased is missing, and (d) to emotionally relocate the deceased and move on with life. Accordingly, mourning is a longer-term process which demands the expenditure of effort on the part of the bereaved. As an aside, it is perhaps appropriate to note here that this understanding of mourning is similar to what is meant by authors who use the term “grief-work” (e.g., Lindemann, 1944).

Thus, in an analogous manner to Stroebe and Stroebe’s (1987) position that bereavement causes grief and mourning, the views of Rando (1993) and Worden (1991a) unite in that they both emphasize that the discomfort of grief impels mourning. Worden (1991a) said it well when he stated that “grief creates tasks that need to be accomplished” (p. 35), with these tasks comprising the work of mourning. Given these understandings, one can posit a sequence wherein bereavement causes grief, which then while occurring (if all goes well) causes one to mourn adaptively in order to (a) quell the discomfort of grief, and (b) regain a sense of equilibrium (i.e., adapt) in the face of a powerfully distressing event. As Rando (1993) noted “grief is a part of mourning but mourning is not necessarily a part of grief. By definition, mourning encompasses much more than grief” (p. 26).

A thoroughly mixed definition of mourning was given by Kaplan et al. (1994), who noted that “in the strictest sense, *mourning* is the process by which grief is resolved; it is the societal expression of post bereavement behavior and practices” (p. 80). These authors appear to be saying that public expression is the mechanism upon which the process is based. To include just one further view, Stroebe and Stroebe (1987) explain that those individuals who have been influenced by the psychoanalytic tradition use the term mourning more or less synonymously with the term grief (i.e., as the response to loss). In order to explain how this came to be, Stroebe and Stroebe (1987) stated that:

This usage goes back to the English translation (Freud, 1959) of Freud’s (1917) seminal contribution to the field, “*Trauer und Melancholie*” as “*Mourning and Melancholia*.” The German word *Trauer* refers to both the experience as well as the expression of grief. It is therefore quite possible that in discussing *Trauer* Freud was referring to grief rather than mourning. (p. 8)

As the present investigation is focused upon associations between personality traits and *grief*, let us not focus further attention upon mourning, other than to keep in mind

that by restricting the scope of this investigation to grief reactions, we shall not venture into an explicit examination of coping behavior (e.g., mourning) within or across individuals after a loss. It may be emphasized that in this study it is the *grief reactions* of bereaved individuals that will be assessed. Grief, as noted above, comprises the multiple reactions that the bereaved experience after a loss. The operational definition of grief was of course determined by the measurement instruments that were employed to tap the construct. Yet, in an effort to be sufficiently clear on the meaning of grief before proceeding, it may be stated that “grief represents the particular *reactions* [italics added] one experiences” after a loss (Sanders, 1989, p. 10), the personally-felt reactions noted above by Rando (1993). It is enough to say at this point that the general hypotheses of this study are that one’s personality traits and general personality style are an important factor that is associated with one’s experienced grief reactions following the death of a significant other.

#### More on the Concept of Grief

Given the importance of “grief” in the present study, an elaboration of two key aspects of the concept will be offered in this section. These aspects will include (a) the symptomatology of grief, and (b) various “phase” models of grief that speak to the progression of grief reactions over time. It bears stating here that an effort has been made to separate contributions that deal more directly with the work of mourning. For example, Rando (1993) outlined six major mourning processes, and Worden (1991a) described four key tasks of mourning. These “task models” represent not so much the evolution of grief, but moreso the required work of mourning, and as such are not included in this section.

Regarding the “symptomatology” of grief, the literature clearly indicates that grief reactions encompass an extremely broad range, which include affective, behavioral, cognitive, social, somatic, and spiritual components (Averill, 1968; Corr et al., 1994; Cowles & Rodgers, 1991; Dersheimer, 1990; Lindemann, 1944; Rando, 1984, 1993; Sanders, 1988; Worden, 1991a; Zisook & Shuchter, 1986). Lindemann’s seminal (1944) paper described acute or normal grief as a syndrome that included five “pathognomic” characteristics, these being somatic symptoms, a preoccupation with the

image of the deceased, guilt, hostility, and the loss of prior patterns of conduct. Recent works have expanded upon Lindemann's observations, delineating a far wider variety of possible responses to loss (Rando, 1993; Worden, 1991a). For example, Worden (1991a) listed sadness, anger, guilt and self-reproach, anxiety, loneliness, fatigue, helplessness, shock, yearning, emancipation, relief, and numbness as possible affective responses; disbelief, confusion, a preoccupation with thoughts of the deceased (which is viewed by Parkes [1970] as "the central and pathognomonic feature of grief," p. 451), a sense of presence of the deceased, and transient hallucinations as possible cognitive responses; and sleep and appetite disturbances, absent-minded behavior, social withdrawal, dreams of the deceased, avoidance of reminders of the deceased, searching and calling out, sighing, restless overactivity, crying, visiting places or carrying objects that remind one of the deceased, and treasuring objects that belonged to the deceased as possible behavioral responses. As can be seen, an extensive spectrum of responses are common and normal following a loss, and in commenting on this fact, Averill (1968) stated that "under appropriate conditions [i.e., post-loss], nearly any behavior may be interpreted as a manifestation of grief" (p. 722).

In order to provide overarching models within which to understand the wide array of grief responses that may be evidenced after a significant loss (and the progression of such responses), several writers have outlined what are referred to as "phase" models of grief (e.g., Averill, 1968; Osterweis et al., 1984; Osterweis, Solomon, & Green, 1987; Rando, 1994). Rando (1984) noted that the basic purpose of such models is to "provide a general pattern" (p. 29) of the evolution of grief over time, although she cautioned that these models are not to be taken as representing fixed and invariant structures, and that the phases are not to be understood as discrete in nature. Further, Rando (1993) stated that "without question, commonalities exist within the human experience; equally without question, idiosyncratic variations occur" (p. 30). One must always keep in mind that the grief process is complex and evolves in a non-linear fashion (Osterweis et al., 1984), and that grief reactions are "colored by both the individual characteristics of each person and pertinent social and psychological factors" (Rando, 1984, p. 29; see the discussion on "risk factors" below).

Lindemann (1944) originally described grief as a “syndrome” (as did Averill, 1968) with a predictable course. Rando (1984, 1993) noted three broad categories or phases of response after a loss, each characterized by a major response set toward the loss. These phases are (a) an avoidance phase, wherein the bereaved person experiences shock, disbelief, and denial, (b) a confrontation phase, in which the various painful manifestations of grief are experienced most acutely and intensely, and (c) a re-establishment phase, wherein painful grief has begun to fade and the bereaved person begins to re-enter (emotionally and socially) the everyday world. Averill (1968) noted the existence of three similar “stages,” with grief progressing through (a) shock/disbelief (comprising first a phase of numbness, followed by a phase of searching and yearning for the lost person), (b) despondency and despair, and (c) recovery stages (see also Bowlby, 1980). This latter model corresponds fairly closely to models of grief presented by Sprang and McNeil (1995) and Osterweis et al. (1984, 1987).

Within the context of the phase models described above, bereaved persons may follow different “pathways” after a loss (Rando, 1993; Vachon et al., 1982a). As one empirical example, Vachon et al. (1982a) documented the existence of three patterns of response to loss (in terms of non-psychotic psychological distress). These included (a) movement from high distress to lower levels of distress over time, (b) not experiencing intense distress at any time, or (c) continuing to manifest high distress levels for a long period of time. This finding is not necessarily inconsistent with the notion of a general common pathway after a loss, in that (a) these three “trajectories” may have all occurred within what would correspond to the phase of acute grief noted in the models presented above, or (b) one could continue to experience episodes of psychological distress even as one moves (more or less) into the re-establishment/recovery phase, perhaps even independent of bereavement status itself.

In summary, the evolving process of grief after a loss seems to have recognizable patterns that operate across large groups of persons. One way to understand this would be to say that there does appear to exist a general common pathway in spite of significant individual differences. These individual differences include (but are not

limited to) variability in (a) grief symptomatology, (b) the time-frame of acute grief (or any of the “phases” for that matter), and (c) the amount of time that it takes individuals to (more or less) resolve the multiple issues stemming from a major bereavement (Jacobsen, 1986; Zisook & Shuchter, 1986).

### Grief in Adolescents/Young Adults

Much of the bereavement literature reviewed in this introduction has been focused on grief and mourning as it manifests itself in the lives of persons in various stages of adulthood. In part, this is due to the fact that the grief literature can be characterized as containing a heavier emphasis on bereavement and grief in adulthood as opposed to the grief responses of bereaved younger persons. However, given that the present investigation was concerned with the grief reactions of bereaved young adults, it is worthwhile to explore how persons in the adolescent/late-adolescent/young adulthood years respond to the death of a significant other.

We can frame the response to loss of the participants in the present investigation by considering their age/developmental level at the time of the loss and subsequent to it. College students have been termed the “quintessential late adolescents and young adults in our society” (Rickgarn, 1996, p. 275), and as such, most of the members of the population under study in the present investigation would have been faced with confronting developmental tasks (Erickson, 1963) consistent with either adolescence or young adulthood when the death occurred. According to Erickson’s psychosocial stage model, adolescents are faced with the developmental task of discovering one’s identity/developing the sense of a coherent self. For those participants who were coping with this developmental task at the time of their loss, it can be seen that the profound disruption that can result from the death of an important figure could have important impacts on their ability to adequately resolve the conflict between achieving a comfortable sense of self as a person (i.e., developing a cohesive sense of identity) versus having an unclear or fragmented sense of self. For young adults, a primary developmental task is to resolve the conflict between intimacy and isolation, working toward the development of a capacity for closeness and commitment to others as opposed to having feelings of aloneness and separation from others (Zimbardo, 1992).

As above, the challenge of facing and resolving this task will be made more difficult if concurrently one is dealing with grief and the tasks of mourning and all of the other disruptions in life that can occur subsequent to the loss of an important person (Fleming & Adolph, 1986). Other age-appropriate tasks that may be disrupted by a bereavement include negotiating academic demands, gaining autonomy from one's parents, the pressures associated with independent functioning (versus dependence on others), and the making of career choices.

When we consider that a proportion of the current sample will have been within the broad parameters of "adolescence" at the time of the bereavement, the experience of bereaved adolescents becomes relevant (DeMinco, 1995; Goodman, 1986). In this regard, Osterweis et al. (1987) noted that adolescents "have a special vulnerability because they are simultaneously experiencing the normal developmental turbulence of adolescence and ambivalent feelings toward their parents. This already confusing time of life can only be made more disturbing if the adolescent must deal with the death of a parent, sibling, or peer" (p. 7). In addition, the phenomenology of adolescent grief has been shown through psychometric approaches to include at least the components of (a) painful intrusive memories and active avoidance, (b) feeling physically close to the deceased and behavioral imitation of the deceased, (c) heightened perceptual vigilance and vivid affective reactions, and (d) behavioral problems (Clark, Pynoos, & Goebel, 1996). For those seeking a recent, comprehensive, and thorough analysis of factors associated with adolescent bereavement, the reader is directed toward the Clark et al. chapter previously cited.

Regarding college students in particular, there appears to be a relative paucity of empirical research examining their responses to bereavement (Rickgarn, 1996), even though figures suggest that a high proportion of university students have been bereaved. For example, a study by Balk (1997) documented that about 40% of the college students surveyed reported the death of a family member or friend within the preceding 12 months. College students do experience significant after-effects of loss, and unfortunately their status as college students may work as a barrier to them in terms of their willingness and/or ability to grieve for their loss(es) (Rickgarn, 1996).



Both empirical work (Sklar & Hartley, 1990) and a recent review by Rickgarn (1996) suggest that college students experience grief responses similar to those reported in the adult grief literature (e.g., disbelief, shock, feelings of sadness and emptiness, anger, guilt, etc.). However, some unique features may be characteristic of their experience. For instance, their grief may be "disenfranchised," (see Doka, 1989) in the sense that the importance of the lost relationship may not be recognized, with the loss of "close friends" given as an example of such a situation (Rickgarn, 1996). In a sample of college-aged women who had lost a parent, a theme of "growing up before their time," including an end of youthful innocence and feelings that the world had become an unsafe place has also been reported (Silverman, 1987).

A further issue reflecting the age and perhaps developmental level of most college students is that "their sense of invulnerability and immortality is rudely shattered" (Rickgarn, 1996, p. 292). Also, at a time when these young adults may be trying to emotionally separate themselves from their families, they may not have the will or ability to draw support that may otherwise be available from family members. In addition, Rickgarn (1996) stated that college students "are likely to experience emotional responses that they may never have previously encountered and may not well understand" (p. 292), and further that they may experience the "lack of a suitable repertoire of effective coping mechanisms [which] may create significant concerns or render the individual unable to know how to behave" (p. 273). In addition, it has been noted that the college campus setting is typically not conducive to the expression or resolution of grief (Balk, 1996; Janowiak, Mei-Tal, & Drapkin, 1995). In the words of Balk (1996), "the campus can become a place of loneliness, isolation, nonproductivity, and dread for students dealing with grief" (p. 324). In response to the need for services on college campuses, intervention programs designed to assist bereaved students in coping with their loss(es) have been developed (Janowiak et al., 1995; Swenson, 1996).

In summary, the grief experiences of younger persons have not received the amount of empirical attention that has been directed toward exploring the experience of loss in adulthood. It appears clear, however, that the death of an important person in the life of an adolescent or young adult is a significant event that challenges their coping

capabilities and has repercussions with regard to the developmental tasks that they find themselves facing (Fleming & Adolph, 1986). It is also apparent that adolescents and younger adults do experience grief following a loss, and while this grief may be similar in many respects to the grief of older persons, it nonetheless has features that make the experience somewhat different from that of persons in their adult years. With regard to the focus of the present study, an even more important omission in the literature concerns the lack of research examining personality influences on the grief of young adults.

### Personality

The term “personality” connotes many different meanings. Regardless of the particular meaning or definition to which one subscribes, personality is “the most ubiquitous and human thing about us” (Maddi, 1996, p. 5). Rather than discussing in depth various conceptualizations of personality, the author will present just a few general representative definitions to illustrate the concept and then will discuss the view of personality adopted in this research, this being the trait perspective. It is important to note here that trait theory is just one of many possible models of personality.

To give a flavor to the meaning of the term, “personality” has been defined as the “characteristic way in which a person thinks, feels, and behaves; the ingrained pattern of behavior that each person evolves, both consciously and unconsciously, as his or her style of life or way of being” (Edgerton & Campbell, 1994, p. 98). Maddi (1996) defined personality as a “stable set of tendencies and characteristics that determine those commonalities and differences in people’s psychological behavior (thoughts, feelings, and actions) that have continuity in time and that may not be easily understood as the sole result of the social and biological pressures of the environment” (p. 8). Kaplan et al. (1994) defined personality as “the totality of emotional and behavioral traits that characterize the person in day-to-day living under ordinary conditions; it is relatively stable and predictable” (p. 731). Eysenck and Eysenck (1985) defined it as:

...a more or less stable and enduring organization of a person’s character, temperament, intellect, and physique, which determines his unique adjustment to the environment. *Character* denotes a person’s more or less stable and enduring system of conative behavior (*will*); *temperament*, his more or less stable and enduring

system of affective behavior (*emotion*); *intellect*, his more or less stable and enduring system of cognitive behavior (*intelligence*); *physique*, his more or less stable and enduring system of bodily configuration and neuroendocrine endowment. (p. 9)

It is apparent that all these authors stress the aspects of coherence, consistency, and continuity over time in their definitions. Indeed, the supposition that personality traits are “stable” across time and situations is currently a widely supported view (Costa & McCrae, 1980, 1991; Funder, 1991; McCrae & Costa, 1990; McCrae & John, 1992). Such “stability” manifests itself in two distinct ways. First, the mean levels of most traits do not change much with age, and second, retest correlations tend to show stability of individual differences (Costa & McCrae, 1991).

Trait (a.k.a. “differential”) psychology is a branch of personality psychology that has traditionally developed systems that describe the characteristic and enduring ways in which persons differ (Phares, 1988). As a basic point of agreement, differing trait models of personality (e.g., the systems of Cattell and Eysenck) hold that “individuals have pervasive and enduring characteristics that *influence* [italics added] their thoughts, feelings, and behaviors and that distinguish them from other people” (Costa & McCrae, 1991, p. 171). The trait perspective on personality has undergone a revitalization in recent years (Digman, 1994), with much of this renewed vigor being a direct result of the (re)emergence of the Five-Factor Model (FFM) of personality structure (Digman, 1989, 1990).

The FFM is essentially a framework for structuring personality traits into a meaningful and empirically supportable (hierarchical) organization. As comprehensively outlined by Digman, (1990, 1994), the FFM has a history dating back to the work of McDougall in the early 1930s. The model was originally discovered (using the lexical approach) through the analysis of natural language trait terms (Costa & McCrae, 1995; Costa & Widiger, 1994; McCrae & John, 1992), including the seminal work of Allport and Odbert (1936, as cited in McCrae & John, 1992) who noted that there was in the neighborhood of 4,500 English trait terms, and it was refined based on results derived from years of factor-analytic research (Maddi, 1996). The FFM is a version of trait theory (McCrae & John, 1992), and as trait theory is still

generally thought of as a “fragmentary” personality theory (Maddi, 1996, see also Phares, 1988, for a critique), it is no surprise that the FFM itself is not a complete theory of personality (McCrae & John, 1992). Rather, as with the focus of trait psychology in general, the FFM is intended to be a “comprehensive taxonomy” of personality traits (Costa & McCrae, 1995), “a descriptive, taxonomic trait theory rather than an explanatory one” (Miller, 1991, p. 417). Digman (1994) termed it “a very meaningful theoretical structure for organizing the myriad specifics implied by the term *personality*” (p. 13). The Five-Factor model has demonstrated robustness across different studies, languages, inventories, and cultures (Digman, 1990, 1994; McAdams, 1992; McCrae & John, 1992), and as Suls, David, and Harvey (1996) noted, it “has allowed for a more comprehensive and systematic approach to investigating the role of personality in a variety of domains” (p. 720).

The FFM consists of five basic trait dimensions (a.k.a. “broad constructs,” Costa & McCrae, 1991; “domains” Costa & McCrae, 1995; or “superordinate constructs,” Digman, 1990) across which all persons can be classified. These five (higher-order) dimensions are composed of groups of covarying traits (McCrae and John, 1992), also known as “facets” (Costa & McCrae, 1992; Suls et al., 1996). While these five domains do not completely exhaust the *trait* description of personality, they appear to represent the “highest hierarchical level of trait description” (McCrae & John, 1992, p. 190). These traits have also been termed as “global” by Funder (1991), because “each refers not just to one or a few specific behaviors, but to *patterns* of behavior presumed to transcend time and specific situations” (p. 31). It is important here to underline that these dimensions do not capture many important aspects of personality (e.g., motives, attitudes, needs, conflicts, goals, current concerns, etc.). After Norman (1963), these five dimensions are traditionally referred to as (I) Extraversion or Surgency (vs. Introversion), (II) Agreeableness (vs. antagonism), (III), Conscientiousness (a.k.a. will to achieve), (IV) Emotional Stability (a.k.a. adjustment vs. Neuroticism), and (V) Culture (a.k.a. Openness to Experience or intellect). The domain labels adopted herein (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness) are those used in the Revised NEO Personality Inventory (NEO PI-R; Costa & McCrae,

1992), as this measure was designed specifically to tap the FFM and was one of the two personality trait measures employed in this study.

To narrow the focus somewhat from the overarching FFM to a lower level on the trait hierarchy, let us start by noting that the term “trait” has proven quite challenging to define, as acknowledged even by persons who have considerable knowledge in the field of personality (Fiske, 1994; Pervin, 1994). In spite of some degree of definitional variation, a fairly representative definition is that traits are continuous “dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions” (McCrae & Costa, 1990, p. 23). Similarly, McAdams (1992) defined traits as “dimensional concepts that refer to how individuals differ from one another” (p. 336). Personality traits are enduring characteristics, or, in the words of Allport (1966), “inside tendencies” or “integrated structures within the skin” (p. 9); “dispositional factors that regularly and persistently *determine our conduct* [italics added] in many different types of situations” (Eysenck & Eysenck, 1985, p. 17). The notion of trait stability over time (“enduring characteristics”) has received substantial empirical support (e.g., Costa & McCrae, 1991; Funder, 1991; McCrae & Costa, 1984, 1990).

Personality traits are manifest to one degree or another across all persons, with distributions that approximate the familiar normal (bell) curve (Costa & McCrae, 1992; McCrae & Costa, 1990). As such, all persons can be ranked or ordered according to the degree to which they manifest any given trait (McCrae & Costa, 1990). Evidence suggests that personality traits have a sizable genetic component (Brody, 1994; Loehlin, 1992; McAdams, 1992). In addition to having motivational properties (McCrae & John, 1992), personality traits describe attitudinal, emotional, experiential, and interpersonal styles (McCrae & Costa, 1990). McAdams (1992) cites many authorities in this area in summarizing that “there is growing consensus in personality psychology that traits exist, endure across time and situations, and can be measured reliably and validly, and that measurements of individual differences in traits can be used to great advantage in the prediction of human behavior” (pp. 329-330).

As noted above, evidence suggests that personality traits are important in terms of

influencing behavior (Allport, 1966; Costa & McCrae, 1991; Funder, 1991; McAdams, 1994; McCrae & Costa, 1990), exercising at least as much importance as situational effects (Eysenck & Eysenck, 1985; Funder & Ozer, 1983). In this regard, Costa and McCrae (1991) stated that:

Traits are important in the lives of individuals, influencing everything from choice of an occupation to the development of psychopathology.... personality traits affect our attitudes and opinions, the social roles we select and the ways we interpret those roles, our closest interpersonal relationships, even the stories we tell ourselves about our lives. (p. 199)

Brody (1994) phrased it this way: “are there any environmental events that influence personality as main-effect variables whose influence is not contingent on the trait characteristics of the person encountering the events? I suspect that the answer to [this] question is no” (p. 118).

However, the specific mechanism(s) through which global traits influence behavior remains incompletely understood (Funder, 1991). One explanation was presented by Allport (1937), who proposed that traits have the capacity to make many stimuli functionally equivalent. That is, the tendency to view unlike situations as similar causes an individual to respond to them in a like manner, with the resulting patterns of behavior representing the overt manifestations of traits. Allport (1966) gave the following further account of the workings of traits:

Traits are cortical, subcortical, or postural dispositions having the capacity to gate or guide specific phasic reactions. It is only the phasic aspect that is visible; the tonic is carried somehow in the still mysterious realm of neurodynamic structure. Traits...include long-range sets and attitudes, as well as such variables as “perceptual response dispositions,” “personal constructs,” and “cognitive styles.” (p. 3)

It must also be made clear that the ability of personality traits to *cause* or account for behavioral phenomenon (e.g., overt behaviors, thoughts, feelings, etc.) is debated in the literature (see Pervin, 1994, for an overview of this issue). The question as to whether traits are properly understood as purely descriptive concepts or as explanatory concepts (and even if so, to what degree?) has a lengthy history, and a current consensus on the so-called “conceptual status” of personality traits is lacking (Epstein,

1994; McAdams, 1992; Mervielde, 1994; Mischel & Shoda, 1994; Pervin, 1994; Wiggins, 1997). Of relevance to the present study is the fact that many writers see traits as exerting some degree of internally-based influence (i.e., as dispositions to respond) on aspects of human functioning (Allport, 1937, 1966; Brody, 1994; Funder, 1991, 1994; McAdams, 1994). For example, Brody (1994) stated that "I assume that personality traits are causal. They are genotypically influenced latent characteristics of persons that determine the way in which individuals respond to the social world they encounter" (p. 119). In the present investigation, I argue that personality traits are enduring internal tendencies of persons that, while providing a necessarily incomplete explanation for behavior (i.e., grief responses in this investigation), are nonetheless useful for understanding the nature of one's response to loss. As the goal of the present investigation is to test the hypothesis that one's characteristic modes of behavior will be associated with differential patterns of response to loss, the trait unit appears to be a reasonable one for study.

McCrae and John (1992) listed three important qualities of the FFM which account for its widespread appeal amongst personality psychologists. They stated that the model:

...integrates a wide variety of personality constructs, thus facilitating communication among researchers of many different orientations; it is comprehensive, giving a basis for systematic exploration of the relations between personality and other phenomena; and it is efficient, providing at least a global description of personality with as few as five scores. (p. 206)

Centrally related to the rationale for adopting this particular model in the present study, these same authors continue by stating that of the above noted characteristics:

...comprehensiveness is perhaps the most crucial. Without a comprehensive model, studies using personality traits as predictors are inconclusive, because the most relevant traits may have been overlooked. This is unlikely to happen when measures of all five factors are included in a study. Indeed, even null results are informative in such a study: If none of the factors is related to the criterion, it may be time to abandon the search for personality predictors. (p. 206)

Given these reasons, and because of the ready availability of a reliable and valid measurement tool specifically designed to operationalize the constructs of the FFM,

this model of personality has been chosen for the present study.

### **Personality Disorders**

As noted above, the trait perspective is but one of many models of personality. However, when it comes to the discussion of personality disorders, it occupies a central role in that personality traits serve as the defining criteria for the 10 personality disorders (PD's) listed on Axis II in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 1994). Personality disorders involve maladaptive variants of normal-range personality traits (Kaplan et al., 1994). In DSM-IV, a personality disorder is defined as “an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual’s culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment” (p. 629). It is also noted that “only when personality traits are inflexible and maladaptive and cause significant functional impairment or subjective distress do they constitute personality disorders” (p. 630). The similarity between these features and the stable and pervasive aspects of normal-range traits as discussed above is apparent, although here we have the notion that these PD traits lead, in addition, to subjective distress and/or functional impairment.

The DSM-IV PD categories are each composed of multiple criteria (7, 8, or 9), and although no single criterion is necessary for a given PD diagnosis, a certain number of criteria (e.g., five) are required. This is known as a polythetic format, and is consistent with the generally atheoretical and descriptive approach to diagnosis embodied in the DSM system. Due in part to the polythetic nature of the PD categories, the diagnostic criteria lists have been shown to possess inadequate levels of internal reliability. For example, Morey (1988) reported a median coefficient alpha of .68 for the DSM-III-R PD diagnostic criteria sets. However, more recent data suggests that the DSM-IV criteria lists may be more internally consistent than those listed in earlier editions of the DSM system. Based on clinician ratings, Blais and Norman (1997) reported that seven of the 10 DSM-IV Axis II PD’s demonstrated adequate levels of internal consistency (i.e., .70 or higher). In addition, Linde and Clark (1998) found that clinicians were



more accurate in assigning **DSM-IV** Axis II criteria to their respective disorders than they were in assigning Axis I criteria to their associated disorders. These authors concluded that in comparison with earlier editions of **DSM**, “the new [**DSM-IV**] PD criteria may be more descriptively valid and clinically useful” (p. 132). Although the internal reliability of PD criteria sets may be somewhat lower than ideal, when considered as a whole, the criteria for the given disorders do generally tend to cluster together to describe recognizable styles of personality functioning that are clinically meaningful. For example, recent research suggests that the seven criteria for avoidant PD appear to cluster to define a unidimensional entity (Baillie & Lampe, 1998), and the criteria that define borderline PD generally have high diagnostic efficiency (Gunderson, Zanarini, & Kisiel, 1996).

In contrast to the categorical (i.e., **DSM**) approach to classification noted above, an alternative approach to the classification of the personality disorders encompasses a dimensional framework. Dimensional approaches have been advanced in recent years as alternative ways to understand personality maladjustment (e.g., Widiger, 1996; Widiger & Frances, 1994). The essential feature of the dimensional approach is that it rejects an inherent feature of categorical diagnosis, that being that the PDs are qualitatively distinct clinical syndromes. As noted in **DSM-IV** (1994), the dimensional perspective holds that the PDs “represent maladaptive variants of personality traits that merge imperceptibly into normality and into one another” (p. 633). To illustrate, typical categorical diagnostic practice will seek to determine whether or not a person is, for example, schizoid (presence vs. absence), whereas a dimensional approach will count the number of criteria met to determine the extent to which a person is schizoid (i.e., the degree to which a given personality style is maladaptive). This distinction between categorical and dimensional approaches to the PDs is noted here to prepare the reader for the fact that dimensions of potentially “pathological” personality styles were assessed in the present investigation. Further, regardless of which approach one favors, it will be the case that increasing degrees of personality pathology will, by definition, be associated with significant functional impairment and/or subjective distress.

Personality disorders are important in one sense because they not only predispose

toward distress and/or impairment, they also predispose toward poor(er) adjustment to a wide variety of life situations. In reference to this point, Marshall and Barbaree (1991) stated that persons with diagnosable personality disorders “will have considerable difficulties in all aspects of their lives. Their social life, work, interpersonal relations, and leisure will all be dysfunctional to some significant degree” (p. 372). Although empirical work in this area is scarce, several recent studies have documented significant associations between personality disorders and poor coping/response to stress (Kruegelbach, McCormick, Schulz, & Grueneich, 1993; Vollrath, Randolph, & Torgersen, 1994, 1996). For example, Vollrath et al. (1996) found that when under stress, personality disordered psychiatric outpatients tended to utilize potentially dysfunctional coping responses (i.e., disengagement from goals, alcohol/drug use), and to not use the more adaptive strategies of (a) active, planful coping, (b) seeking support, and (c) positive reinterpretation. Based on their results, these authors concluded that “across the personality disorders dispositional coping strategies conveyed a picture of passivity, social withdrawal, resignation, little tolerance for frustration, and lack of self-control” (p. 341). Thus, one can see that this logic should hold equally well for the experience of dealing with loss. If styles of pathology are related to difficulty in navigating smoothly through life to begin with, then it stands to reason that these should also be associated with differential (perhaps mostly poorer) functioning following the loss of a significant other. As such, both normal-range personality traits and potentially more problematic personality styles were assessed with regard to their association(s) with grief responses in the present investigation.

In order to understand the role of personality traits and styles as (co)determinants of grief responses, one must first be cognizant of the totality of factors that are associated with grief. Thus, let us now return to the grief and bereavement literature and explore some of the other factors that have been identified as relating to bereaved persons' grief reactions.

### **Putting Personality in Context**

Although much of the remainder of this introduction will be devoted to elaborating known or proposed links between personality and grief responses, it bears stating at this point that many factors have been found to be associated with the nature and intensity of grief. Rando (1993) noted that “no person’s grief or mourning response occurs in a vacuum. Rather, it is influenced, shaped, and determined by a constellation of factors that combine to render a mourner’s response unique - as individual as a fingerprint” (p. 29). Similarly, Worden (1991b) stated that “any person’s grief response is influenced by a series of determinants that affect both the intensity and course of the mourning” (p. 143). Some of these factors predate the death, some occur concurrently with it, and others occur subsequently to it (Stroebe & Stroebe, 1987). As such, an important focus within the bereavement literature has been on elucidating the nature of grief moderator variables. Often, these moderator variables are cast in the language of “vulnerability” or “risk factors.” Parkes (1990) defined risk factors by stating that they are “those predictors that can be identified at the time of a bereavement and are associated with good [e.g., “the establishment of a new reality and the development of a new identity,” Cowles & Rodgers, 1991, p. 122] or bad outcome” (p. 308), while Stroebe, Stroebe, and Domittner (1988) defined them as “variables that increase the individual’s vulnerability to the loss experience (vulnerability factors) or slow down adjustment... (recovery factors)” (p. 151). Many commentators and investigators have focused their attention on discussing or exploring the nature of these factors (Benoliel, 1985; Bowlby, 1980; Bugen, 1977; Conway, 1988; Hazzard, Weston, & Gutterres, 1992; Janssen, Cuisinier, de Graauw, & Hoogduin, 1997; Lund et al., 1985; Parkes, 1975, 1985, 1988b, 1990; Prigerson et al., 1997; Rando, 1983, 1984, 1991, 1993; Raphael & Middleton, 1990; Rynearson, 1986; Sanders, 1980, 1988, 1989; Shanfield, 1987; Shanfield & Swain, 1984; Steele, 1990; Stroebe & Stroebe, 1987; Stroebe et al., 1988; Vachon et al., 1982a, 1982b; Worden, 1991a, 1991b; Zisook, Shuchter, & Lyons, 1987).

To briefly illustrate, John Bowlby (1980) classified variables that can influence mourning into five domains, these being (a) the role and identity of the deceased and

(b) the sex and age of the deceased, (c) the circumstances and causes of the death, (d) the psychological and social circumstances that are operative in the life of the bereaved person around the time of the loss and subsequent to it, and (e) the personality of the bereaved individual. About this last determinant of grief, more will be said in a later section.

Two recent comprehensive reviews in this area provide a general overview of the current state of knowledge regarding identified risk factors. Rando (1993) listed the following seven “high-risk” factors (i.e., factors that predispose *any* individual to complications in the mourning process); (a) a sudden, unexpected death, (b) death from an overly lengthy illness; (c) death of a child; (d) deaths that are perceived by the bereaved as preventable (see also Bugen, 1977); (e) a premorbid relationship with the deceased that was especially ambivalent, angry, or dependent (see also Parkes & Weiss, 1983); (f) prior or concurrent mourner liabilities (including the mourner’s personality); and (g) perceived lack of social support by the bereaved individual. Sanders (1988; 1989) listed (a) biographic/demographic factors, including the age (see also Stroebe & Stroebe, 1987), gender and socioeconomic status of the bereaved person; (b) individual factors, including the personality of the bereaved individual and their health (mental and physical) before bereavement, ambivalence and dependency in the relationship with the deceased, and loss of a child; (c) mode of death, referring to sudden untimely deaths (suicide, murder, or other catastrophic circumstances), and stigmatized deaths due to AIDS; and (d) circumstances after the loss, including lack of social support and concurrent crises. While the above listing was not meant to be exhaustive, it does include some of the more powerful variables that are known to relate to grief. It is also important to note that such prominent writers as Bowlby (1980), Rando (1993), Sanders (1988, 1989) and Worden (1991a) have all included the personality of the bereaved individual among their lists of very important determinants of grief and/or mourning.

### Personality and Grief

The primary purpose of the preceding discussion on “risk factors” was to frame the upcoming focus on associations between personality and grief with the fact that grief is

clearly a multidetermined entity. Given that this has been established, the material covered in this section forms the foundation for the current investigation. In presenting this core material, this section is divided into two parts. In the first, key non-empirical (i.e., theoretical, descriptive, and literature review) contributions are reviewed. These provide perspective and some sense of the history of thought regarding personality influences on grief. Second, those (few) empirical reports that present original data relating personality constructs to grief will be reviewed. One thing to note is that the meaning of the term “personality” varies across these contributors, which adds to the challenge of drawing specific conclusions about the relationship(s) of trait dispositions to grief. As Middleton, Raphael, Martinek, and Misso (1993) stated, “where personality is mentioned in the bereavement literature, it is frequently in a generalized way that does not equate easily with a widely used classification system” (p. 58).

Theoretical and conceptual contributions. Averill (1968) acknowledged the potential role of personality as a factor having relevance to bereavement behavior. Specifically, he stated that “considerable latitude remains for individual differences in bereavement behavior,” which, among many the factors he listed, are partially a function of “the historical and *constitutional peculiarities* [italics added] of the bereaved” (p. 723). In discussing the symptomatology of grief, Averill made a statement key to the present investigation when he noted that “basic [grief] reactions are, of course, greatly influenced by situational and cultural demands, as well as by the *personality characteristics* [italics added] and previous experience of the bereaved” (p. 736), and that “the role of personality factors...in the determination of grief reactions...are of undoubted importance” (p. 744).

John Bowlby’s (1980) work has added significantly to the understanding of grief and mourning. As noted previously, part of his interest was in delineating factors/variables that contribute to the outcomes (pathological/non-pathological) of mourning, and even though he did not term it such, his analysis pointed to the important role of “individual differences” in determining the course and outcome of mourning. In fact, although he listed five domains of variables that influence the outcomes

To this end he stated that “in determining the course of mourning the most influential of these variables seems likely to be the personality of the bereaved, especially the way his attachment behavior is organized and the modes of response he adopts to stressful situations” (p. 172). The essence of his thesis is captured in the following passage:

The effects which the many other variables have on the course of mourning are mediated inevitably through their interactions with the personality structures of the bereaved. Many of these other variables, the evidence suggests, exert great influence, either going far to facilitate healthy mourning or else going far in the opposite direction. Perhaps some of them, acting in conjunction, could lead even a relatively stable person to mourn pathologically; but more often, it seems, their effect on a stable personality is to lead mourning to be both more intense and more prolonged than it would otherwise be. Their effects on a vulnerable personality, by contrast, are far more serious. In such persons, it is clear, they not only influence the intensity and length of mourning for better or worse but they influence also and greatly the form that mourning takes, either towards a relatively healthy form or else towards one or other of the pathological variants. (p. 173)

Bowlby’s use of the word “form” is most relevant to this study, although our current focus for the term differs from his in that “forms” refers more specifically herein to more tightly defined grief reactions, as opposed to the more broad patterns of response to loss to which Bowlby spoke.

Bowlby’s analysis also included the delineation of three “types” or “kinds” of personalities that predispose toward the development of a disordered form of mourning. These three types describe persons who (a) tend to make affectional relationships that are characterized by anxious attachment and ambivalence, (b) have a strong disposition to “engage in compulsive caregiving” (including persons described as nervous, overdependent, clinging or temperamental, or neurotic), or (c) assert emotional self-sufficiency and independence from affectional ties.

A caveat that Bowlby provides, presented as a “basic principle,” is most relevant for this study. He cautions that when trying to accurately understand the response of any given person to a loss, one must “take account not only of the structure of that individual’s personality but also of the pattern of interaction in which he was engaging with the person now lost...no simple correlation between pattern of personality and form of response to loss can therefore be expected” (p. 212).

Horowitz, Bonanno, and Holen (1993) proposed a model through which pathological grief could be recognized and diagnosed. Embedded within their conceptual model is the core idea that pathological grief in bereaved persons can be understood as the result of a complex interaction between two pre-loss personality constructs. These constructs are (a) schemas that one has about oneself and about one's prior relationship to the deceased, and (b) habitual styles of emotional responding to potentially aversive stimuli. While noting that one's response to any given stressor will be influenced by many factors, these authors underlined the importance of the person's preexisting personality structure by noting that "personality will affect the types of experiences formed, the duration of each phase of response, and whether or not adaptive completion of a mourning process is achieved" (pp. 262 - 263).

Although a prominent theme of Lindemann's (1944) seminal and widely cited report was that of uniformity of grief reactions across bereaved persons, he did note that after a loss, persons with "obsessive personality make-up and with a history of former depressions (i.e., neuroticism) are likely to develop an agitated depression" (p. 146). Several other prognostic factors (i.e., mother losing a young child, intensity and type of interaction [affectionate/hostile] with the deceased prior to the death, alteration in social and living conditions after the loss) were listed as being "more important than a tendency to react with neurotic symptoms in previous life," and that "the most conspicuous forms of morbid identification were found in persons who had no former history of a tendency to psychoneurotic reactions" (p. 147). So although premorbid neuroticism was overshadowed as a risk factor, it is noteworthy that it, as well as an "obsessive" personality type and trait depression, were mentioned.

The concept of individual differences in response to loss permeates the work of Colin Murray Parkes and his colleague Robert Weiss (Parkes, 1972, 1975, 1985, 1988a, 1990; Parkes & Weiss, 1983). Parkes (1988b) noted that "since some people come through the stress of bereavement and emerge stronger and more mature than they were, while others suffer lasting psychological damage, it is important for us to identify factors which affect vulnerability" (p. 368). Bereavements can lead to variable (e.g., "good" or "bad") outcomes, depending again on the complex interactions of a

host of factors (Parkes, 1985). However, as early as 1972, Parkes had stated that, "I believe that there are many contributing factors and that the personality of the bereaved person and his or her relationship with the dead person are probably the main determinants of outcome" (p. 143). Subsequently derived data have added empirical weight to this pronouncement.

From the data that they obtained through their Harvard Bereavement Study, Parkes and Weiss (1983) found three major determinants that contributed to pathological grief syndromes in their sample of bereaved spouses. These were (a) having had only a short period of forewarning before the death (i.e., a sudden, unexpected death), (b) having ambivalent feelings toward the lost partner (i.e., a conflict laden marriage giving rise to feelings of both love and hate toward the partner), and (c) dependence upon the deceased during the marriage. Others have also noted that marked ambivalence or dependency (variously defined) in the relationship to the deceased are risk factors for poor bereavement outcome (e.g., Rando, 1993; Sanders, 1988). Based on these noted associations between ambivalence, dependency, and difficulties with grief, Parkes and Weiss (1983) spoke of the "grief-prone" personality (expressed in intense clinging and pining behaviors after a loss and excessive grief and depression). This term was used to denote persons who have a propensity to form ambivalent or dependent relationships with others. As these authors noted, "if ambivalence and dependency are characteristics of certain types of relationships, they also reflect the personalities of the individuals who form those relationships" (p. 20). A related finding was that some persons (percentage not given) who reported conflicted marriages also had difficulties in their other relationships, leading the authors to state that "conflict in marriage can be one expression of inability to trust others or of anger toward others" (p. 124). Low levels of self-trust will lead to intense grief, while a low degree of trust in others will predispose to avoidance behavior and minimal grief (Parkes, 1990). Persons who are excessively angry or excessively self-reproachful will also tend to have a more difficult time with loss than those without these characteristics (Parkes, 1985; Parkes & Weiss, 1983).

Further to the influence of personality, Parkes (1990) reported that multiple



concurrent deaths or deaths which are sudden/unexpected and untimely are a risk factor for poor bereavement outcome *regardless of* other pre-existing mourner vulnerabilities. Conversely, when psychiatric problems occur after an expected and “timely” death, it is usually the case that these are confined to persons with previous evidence of vulnerability. Parkes (1985) noted that it is not unusual for “patients with long-standing neurotic traits to get worse after the death of a loved person” (p. 13). “Insecure” adults will tend to manifest anxiety after a loss (Parkes, 1990), and insecure, over-anxious persons with low self-esteem tend to have poorer bereavement outcomes (Parkes, 1972). Finally, compulsively self-reliant persons are likely to manifest a delayed grief reaction after a loss (Parkes, 1990).

Therese Rando has stressed in her work (1984, 1991, 1993) the importance of assessing the premorbid personality of bereaved persons. She contends that having a “healthy personality” enhances one’s ability to resolve grief successfully (Rando, 1991). She also noted that “the mourner’s personality and mental health...critically influence the ability to mourn a loss successfully” (1993, p. 10), and listed the following as important “personality characteristics” to assess: (a) ego functioning and strength; (b) coping and defense mechanisms, styles, and abilities; (c) frustration tolerance; (d) personality dynamics and conflicts; (e) characterological scripts; (f) sense of self, self-concept, and self-esteem; (g) internal vs. external locus of control and processing; (h) cognitive style and biases; (i) problem-solving skills; (j) maturity; (k) assumptive world components; (l) sense of personal meaning and fulfillment in life; (m) philosophy of life and values; (n) spirituality; (o) communication style; (p) relationship patterns; (q) characteristic ways of managing psychosocial transitions; (r) specific strengths, skills, and assets; and (s) specific vulnerabilities and assets. The comprehensiveness of this listing demonstrates that many person factors can potentially play a part in influencing one’s response to bereavement.

Rando (1993) also made the point that if you do not know what the person was like before the bereavement, you have no basis upon which to judge whether any given reaction is a grief reaction or instead represents the general functioning of the person independent of their bereavement status (see also McCrae & Costa, 1988, for a similar

perspective). For example, “a person’s bizarre modes of thinking following the suicide of a sibling could be misjudged as a grief reaction when they actually reflect a thought disorder present long before the death” (p. 253). Unfortunately, in this study, such pre- and post-testing (i.e., before and after a major loss) was not possible. For the purposes of this study however, Rando’s work has been important in highlighting the importance of personality as a determinant of grief (although many of the concepts that she lists as falling within the realm of personality were beyond the scope of the measurement instruments utilized).

Beverley Raphael, who wrote a thorough and widely referenced book (1983), had little to say about personality factors in her review of factors that affect the outcome of conjugal bereavement. She offered the following:

Although no specific risk factors have been demonstrated, it may be suggested that people with personal characteristics that lead them to form dependent, clinging, ambivalent relationships with their spouses are at greater risk of having a poor outcome. Those who, perhaps because of their own personality styles, make relationships with others who are unable to accept the expression of feeling and review of the lost relationship may be at greater risk, as perhaps may be those with a “plaintive set” that leads them to perceive their social group as inadequate and nonsupportive. It may also be that those who have difficulty with the acceptance of the expression of negative affects or of powerful feelings generally may be more likely to inhibit their grief and mourning. To date, the evidence relating personality characteristics to outcome remains inconclusive. (p. 225)

Stroebe and Stroebe (1987) reviewed several studies examining possible links between personality variables and adjustment to loss. They concluded their review with the following statement:

The studies reviewed in this section offer only limited evidence for the assumption that personality traits modify the impact of loss. However, very few personality traits have as yet been examined in the context of bereavement. Furthermore, many of the studies reported are problematic because they lack nonbereaved control groups. It is difficult, therefore, to draw *any* [italics added] conclusions about the importance of personality factors as moderators of bereavement reactions. This dearth of empirical evidence is surprising as most theories of bereavement predict personality-related differences in individual reactions to loss. (pp. 197-198)

In concluding their analysis of resources that play an important role in dealing with bereavement, these authors argued that “a stable, non-neurotic personality and the

availability of emotional social support are the most important resources to help the individual cope with personal loss” (p. 99).

Worden (1991a) clearly conceptualized that there are vast individual differences in manifestations of grief across individuals, and included personality variables as one of seven main categories of grief determinants. He stated:

The [personality] variables include...how inhibited they are with their feelings, how well they handle anxiety, and how they cope with stressful situations. Also of importance is the highly dependent person and the person who has difficulty forming relationships. Persons diagnosed with certain personality disorders may have a difficult time handling a loss. This is especially true of those classified with borderline personality disorders or narcissistic personality disorders. (p. 33)

He also noted that persons who cannot tolerate extremes of emotional distress would have difficulty resolving a loss, as withdrawal hinders effective grief resolution.

In their recent analysis of the concept of pathological grief reactions, Middleton et al. (1993) noted that “an area of particular significance...and one not well understood, is the possible relationship of personality to bereavement and personality disorder to bereavement pathologies” (p. 57). These authors stressed the need to consider the possibility of preexisting personality pathology and the potential effect of such on pathological grief responses (see also Alarcon, 1984, below). They argued that, on the surface, it may appear that certain maladaptive responses demonstrated by a given bereaved individual are “caused” by the loss-event itself. However upon closer inspection, it may rather be the case that pathological grieving may be “but a manifestation of previously demonstrated disorder or adjustment/personality problems” (p. 60).

Further to this issue, Jacobs (1987) cited the work of Bowlby (1980) and others in stating that “given our present state of knowledge, it is reasonable to consider pathological grief as a manifestation of personality impairment involving attachment to and separation from significant others. This type of [personality] impairment may be reflected in a person’s cognitive functioning, ego defenses, latent self-images and role relationships, and the integration of personality functioning” (p. 133).

To close this section, one can simply note that several other writers have also

suggested or concluded that personality variables play an important role in the determination of grief and adaptations to loss (Conway, 1988; Dershimer, 1990; Osterweis et al., 1984; Sanders, 1989).

**Empirical findings.** Many authors who have written on the relationship between aspects of personality functioning and grief have noted the stark paucity of *empirical* attention given to the elucidation of this most intuitively relevant relationship (Alarcon, 1984; Horowitz et al., 1993; Rando, 1993; Raphael & Middleton, 1990; Sanders, 1989; Stroebe & Stroebe, 1987). For example, Raphael and Middleton (1990) stated that “the bereavement reaction has become so stereotyped that its relationship to personality traits has not been considered adequately by researchers in this field” (p. 306). In all, only a few data-based studies that focused directly on personality as a potentially important moderator of the grief experience were located. Studies were included in the following section only if they utilized a standardized measure of personality in addition to measures of post-loss functioning, or were case reports concerned specifically with the relationship of personality variables to grief. These studies will be presented in chronological order according to publication year.

As the result of a literature search, the first published study of this sort that could be identified was by Sanders (1979), who examined the relationship between personality, as assessed by the Minnesota Multiphasic Personality Inventory (MMPI), and bereavement patterns, as assessed by the Grief Experience Inventory (GEI; Sanders, Mauger, & Strong, 1985). Sanders (1979) aim was to compare the traits and current state of the mourner (Rando, 1993). The sample consisted of 73 recently bereaved persons (all Caucasian; 75% female) who completed the MMPI and the GEI on two occasions, the first time at an average of 2.2 months after the death, and then again at 18 months to 2 years post-bereavement. Based solely upon analysis of the initial MMPI profile configurations, four categories (or “typologies”) of respondents were found, namely, a “disturbed” group ( $n = 6$ ), a “depressed” group ( $n = 14$ ), a “denial” group ( $n = 14$ ), and a “normal” (i.e., statistically average) group ( $n = 38$ ). For each of these MMPI typologies, a composite GEI profile was generated. Bereavement (GEI) patterns showed clear differentiation across the four groups. Thus

for example, persons in the “disturbed” group manifested higher levels of grief on 7 of the 9 grief scales than did those in the other groups, while “normals” showed generally low levels of grief across the scales. Thus, at roughly two months after the death, grief responses varied systematically according to personality profile.

At the 18 month to 2 year post-death follow-up, the MMPI profile configurations across the four respondent typologies remained remarkably consistent with those obtained at the two month post-death interval. Across all four groups, no significant differences were found on any of the MMPI scales over time. Bereavement patterns also demonstrated much consistency over time among the disturbed, depressed, and denial groups. The “normal” personality group, on the other hand, demonstrated several significant reductions in grief symptomatology. In discussing the decrease in grief seen over time among the individuals with normal personality patterns, Sanders stated that the “good outcome for this group was...a function of stable personalities, good ego strength, and personal resiliency” (p. 244). Thus, this study was important in that it demonstrated that personality was clearly associated with the nature and course of grief, indicating that “it is not necessarily the bereavement per se that causes complications [of grief and mourning], but also the psychodynamics of the personality” (Rando, 1993, p. 232).

One further issue emanating from this study is the question of personality trait stability after a major loss. These results demonstrated that MMPI profiles, for these bereaved persons, remained remarkably consistent through the first 18 - 24 months following the loss. It is further noted here (even though this issue will be covered in more depth in a later section) that Sanders also stated that it is reasonable to assume:

that the basic MMPI profile configurations are indicative of premorbid adjustment strategies that have been exacerbated by the stress of bereavement. Thus the same person who manifested disturbed reactions as a trait syndrome displayed the same disturbed reactions in an exaggerated form as a state syndrome. Similarly, those who used denial as a protective defense mechanism displayed those same characteristics to a greater degree when coping with a loss or inordinate stress. (pp. 228 - 229)

This seminal study thus advanced our knowledge about associations between personality variables and grief while also suggesting that the essence of one’s

premorbid personality remained stable through the experience of losing a spouse. One decade later, Sanders (1989) noted that “while investigations into preexisting personality factors in bereavement outcome has been meager, a consensus among writers in this field suggests that this variable represents a fruitful avenue for investigation” (p. 132).

Sheldon et al. (1981) examined various predictors of psychological impairment among bereaved widows ( $N = 80$ ) at 1 month post-death. Psychological impairment was measured using the Goldberg General Health Questionnaire (GHQ), while personality factors were assessed with Cattell’s 16 Personality Factor Questionnaire (16 PFQ). Multiple regression analyses of personality factors, sociodemographic, and social support variables demonstrated that 22% of the variance in GHQ scores at one month post-bereavement was accounted for by two factors on the 16 PFQ. Factor C, labeled “Emotionally unstable” accounted for 21% of the variance. While this study was not concerned with relating personality to grief responses per se, it was informative in that it demonstrated that personality factors were positively associated with “psychological impairment.”

Another article published by the Vachon group (Vachon et al., 1982a) investigated the question of whether “enduring high distress” following a bereavement could be “reflective of personality traits rather than adversities or deficiencies in situational factors” (p. 784). Basically, these investigators were interested in whether patterns of distress following bereavement could be related to personality variables. To assess distress patterns, widows ( $N = 72$ ) completed the General Health Questionnaire at 1 month and at 24 months post-death. Personality was assessed by the 16 PFQ at approximately 6 months post-death. These widows were categorized into three patterns of bereavement functioning (distress levels) on the basis of their 1 and 24 month GHQ scores. These patterns were (a) enduring “low distress” ( $n = 23$ ), (b) enduring “high distress” ( $n = 14$ ), and (c) those who reported high distress at 1 month and then low distress at the 2 year follow-up ( $n = 35$ ).

Results on the 16 Personality Factor Questionnaire indicated that those with enduring high distress were more likely to be (a) emotionally less stable, (b)

apprehensive and worrying, and (c) highly anxious. The women with enduring low distress were more likely to be (a) emotionally stable and mature, (b) conscientious and moralistic, (c) conservative and respecting of traditional ideas, and (d) controlled and socially precise. It is thus apparent that while certain personality factors played a protective role (emotional stability, conscientiousness, and regard for social reputation), others (essentially facets of neuroticism) served to accentuate problematic reactions after the bereavement. These authors concluded that “the evidence does therefore suggest a personality component in susceptibility to distress reactions following a major life crisis” (p. 786). While the longitudinally derived evidence from these two studies by Vachon and her colleagues is significant, it is notable that grief reactions per se were not measured, as the criterion measure for distress, the GHQ, assessed “non-psychotic psychiatric illness.”

Three other investigations published in the mid to late 1980s add information regarding the issue under study. Young (1984) documented results showing that a compulsive personality style (as assessed by the Millon Clinical Multiaxial Inventory) was not related to grief recovery in a study of 193 bereaved widows and widowers (however, this finding is difficult to interpret due to significant methodological concerns). In the Tubingen Longitudinal Study of Bereavement, Stroebe and Stroebe (1987), found that bereaved widow(er)s who scored high on neuroticism (measured by the Eysenck Personality Inventory) evidenced more depression than did low scorers. In the last of these three studies (Watson, 1987), 77 widows received treatment (brief dynamic or mutual help group) for grief symptomatology, with results indicating that personality attributes (i.e., ascendancy, mutuality, efficacy, and tractability) demonstrated significant associations with various grief-related presenting symptoms (i.e., anger, depression, anxiety, and stress response symptoms). Response to treatment was also related to personality factors, in that those who benefited most from the brief dynamic treatment were more ascendant, while widows who were higher on mutuality and lower on efficacy benefited most from the mutual help groups.

Campbell et al. (1991) examined the relationship between the personality variable of “hardiness” (assessed by the Personal Views Survey) and the level and duration of

grief (i.e., degree of “grief resolution”) in a group of widows ( $N = 84$ ; mean age = 54 years) bereaved an average of 34 months ( $SD = 48.3$ ; range = 1 month to 25 years). As defined by these authors, hardy people are “committed to their activities, feeling they have a sense of control over their lives, and seeing life as a series of challenges” (p. 61). As would be expected, respondent “hardiness” was not significantly related to either their “perception of warning” that the death would occur ( $r = .10$ ), nor to the elapsed time since the death ( $r = .09$ ). However, hardiness was significantly and negatively related to the level and duration of grief ( $r = -.51$ ,  $p < .01$ ), such that the “hardier” the individual, the less was the reported grief. Multiple regression analysis was utilized to determine whether hardiness would be a significant predictor of grief after the variables of (a) the widow’s age, (b) time since death, and (c) general level of mental health were entered into the equation. Over and above the influence of these other variables, hardiness was a significant predictor ( $p < .01$ ), accounting for an additional 7% of the variance in grief resolution. In a related study, the level of hardiness of 90 bereaved parents who lost their adolescent or young adult child through suicide was significantly related to their (a) reintegration after the loss, (b) sense of purpose in life, and (c) sense of meaning in life (Dispenza, 1992).

An investigation by Balmer (1993) demonstrated that personality variables were salient predictors of adjustment in 40 bereaved adolescents who had lost a sibling. While not examining grief reactions per se, an investigation by Jelly (1992) reported that extraversion (Myers-Briggs Type Indicator) was positively related to coping resources in a group of 49 bereaved mothers and that introverts demonstrated lower coping resources during the bereavement period than did extraverts. In a sample of 44 persons who were either bereaved survivors of a river boat disaster ( $n = 27$ ) or bereaved relatives of persons lost in the disaster ( $n = 17$ ), no association was found between personality traits (Eysenck Personality Questionnaire neuroticism, extroversion, and psychoticism) and several measures of psychological distress (Thompson, Chung, & Rosser, 1995).

Meuser et al. (1995) examined the relationships between certain personality “styles” and self-reported grief intensity in older widow(er)s ( $N = 51$ ). Two



dispositions were measured, these being propensities to (a) experience emotional distress or (b) demonstrate emotional restraint. Results demonstrated a positive relationship between being dispositionally distressed (or emotionally reactive) and accentuated grief intensity. That is, persons who had higher levels of “characteristic distress” also reported higher levels of grief intensity. Based on their results, the authors suggested that those widow(er)s who are dispositionally prone to experience emotional distress may be at an increased risk for developing complicated grief reactions.

A recent series of articles by Holly Prigerson and her collaborators provide important information regarding our subject matter (Prigerson, Shear, et al., 1997; Prigerson, Wolfson, et al., 1997; Beery et al., 1997). A data-based and review-type article by Prigerson, Wolfson, et al. (1997) focused on illuminating the “underlying mechanisms” (i.e., vulnerability factors) that may be operative to place elderly bereaved spouses at risk for the development of “traumatic grief.” Borrowing concepts from attachment theory (i.e., Bowlby), these authors focused their attention on those elderly persons who were “easily destabilized by separations from attachment figures” (p. 13). They presented a model in which particular combinations of attachment styles and personality attributes, combined with a particular type of relationship to the deceased, contributed to the development of “traumatic grief.” This model included the following three necessary conditions for such a development to occur: (1) that the person manifested attachment disturbances (i.e., compulsive caregiving, defensive separation, excessive dependency, or disorganized attachment styles) and (2) personality characteristics indicative of self-regulatory deficits (i.e., unstable self-image, poor affect modulation, and/or excessive fear of abandonment), and that (3) these elderly widow(er)s had forged a marriage that served a “countervailing or compensatory” function (i.e., the marriage was security-increasing, stabilizing, and mutually exclusive). These authors termed this type of marital relationship as a “traumatic grief-prone relationship.” In cases in which these three conditions were met, data demonstrated that these persons typically manifested traumatic grief. It appeared that both neurotic traits and borderline features served as vulnerability factors for the

bereaved individuals included in this study. In a related study (Beery et al., 1997), these authors stated that “traumatic grief pre-loss appears to be a trait-like tendency to be devastated by a significant loss” (p. 264). In all, these findings suggest that traumatic grief reactions may be more related to the enduring personality characteristics of the person than to characteristics of the death itself (similar to the hypothesis of Alarcon, 1984).

A recent prospective, longitudinal study assessed several classes of risk factors (i.e., person-oriented, demographic, pregnancy-related, and social-environmental) for the prediction of grief intensity (assessed by the Perinatal Grief Scale) following pregnancy loss (Janssen et al., 1997). In a sample of 2,140 pregnant women who were assessed within 12 weeks gestation, 227 experienced an involuntary pregnancy loss. These women were followed for an 18 month period post-loss and assessed at four time points (mean of 2.5, 6, 12, and 18 months post-loss). Hierarchical multiple regression analyses documented that a pre-loss neurotic personality was significantly related to grief intensity ( $p < .001$ ), and was the independent variable that accounted for the most variance (17.4%) in grief intensity. Pre-loss neurotic personality was also significantly predictive of all three subscales of the Perinatal Grief Scale (i.e., active grief, difficulty coping, and despair).

In another set of studies examining the grief of mothers after perinatal loss (Hunfeld, Wladimiroff, & Passchier, 1997a; Hunfeld, Wladimiroff, & Passchier, 1997b), results demonstrated that neuroticism (i.e., a disposition for feelings of depression, insufficiency and low self-esteem) measured at three months post-loss was significantly correlated with four year post-loss measures of grief (i.e., correlations in the .3 to .4 range).

Middleton, Raphael, Burnett, and Martinek (1997) examined the relationships between person factors (i.e., trait anxiety, extroversion, and neuroticism) and “core bereavement phenomenology” in a sample of 115 recently bereaved persons (43 spouses, 39 adult children, and 33 parents). This sample was followed longitudinally for a period of 13 months post-death, with assessments at approximately 1, 2 1/2, 7, and 13 months. Neuroticism and extroversion were measured using the Eysenck

Personality Inventory (EPI: Eysenck and Eysenck, 1964). Regarding temporal effects, results indicated that neuroticism and trait anxiety declined significantly from the first assessment at 1 month to the 13 month follow-up time point (effect sizes of .19 and .20, respectively), while extroversion scores did not demonstrate significant change over time. Significant and large positive correlations were found between EPI neuroticism and the scale of core bereavement items (CBI) at all four time points across all three groups (mean  $r = .58$ ; range = .48 to .73), with a similar pattern of correlations found between trait anxiety and the CBI (mean  $r = .54$ ; range = .30 to .74). EPI extroversion was the measure least related to the CBI, with 5 of the 12 (negative) correlations reaching statistical significance (mean  $r = -.27$ ; range = -.05 to -.45).

These results demonstrated that (1) neuroticism (and the narrower construct of trait anxiety) correlated highly and significantly with the CBI, while extroversion showed a less consistent pattern of relationships, and that (2) the traits assessed were quite stable through the course of the bereavement period. Regarding stability, although decreases in neuroticism and trait anxiety were evidenced, the magnitude of these decrements fell between a small-medium degree (as evidenced by effect size estimates), and it could be argued that the decline represented a return to baseline after an acute period of exacerbation shortly after the death.

Under the broad rubric of what one could consider to be personality variables, cognitive style (Robinson & Fleming, 1992), self-esteem (Lund et al., 1985), and locus of control beliefs (Stroebe et al., 1988) have also been studied in relation to bereavement responses, while higher neuroticism and extraversion scores were related to perceiving the presence of the deceased in a sample of 87 participants bereaved within the past 48 months (Datson & Marwit, 1997).

Two pertinent case studies also shed some light on our subject matter. The first is a case report of a 28-year-old woman who was admitted to hospital 16 months after the death of a live-in nephew (Alarcon, 1984). This woman manifested many difficulties, including drug abuse, depression, and various hallucinatory experiences, which both pre- and post-dated the death. She was diagnosed as having characteristic features of

histrionic personality disorder, with these personality features significantly affecting her response to the loss. In generalizing from this particular case, Alarcon noted that personality characteristics (or personality disorders) can constitute a “pivotal pathogenic, *i.e.*, complicating factor of bereavement” (p. 46) and he hypothesized that “in the absence of major affective disorder, ‘complicated’ bereavement is primarily a reflection of a personality disorder” (p. 46). In connection with this article, Middleton et al. (1993) raised the intriguing notion that if Alarcon’s hypothesis is valid (*i.e.*, that personality disorders underlie complicated bereavement), then the term “pathological grief” may be a misnomer in that “rather than the pathology being specific to the grief, the grief would be accentuating preexisting pathology” (p. 58).

The next case concerned the pathological grief reactions of a 56-year-old male whose wife had died 25 years earlier (Jacobsen, 1986). This man had experienced much difficulty in navigating his life after his wife’s death. He was unable to bring resolution to his grief through the intervening years, and his psychotherapy was focused largely on exploring issues surrounding her death and his reactions to it. Of primary importance here is that psychological testing suggested the presence of an avoidant personality disorder, with additional passive-aggressive, antisocial, and paranoid traits. The author conceptualized that this man had a “preexisting” personality disorder. Although this man was also contending with other known risk factors of poor bereavement outcome (*e.g.*, an extensive loss history, an “untimely” death), the author attributed much causal importance to this man’s personality, concluding that “a grief reaction of such extremely long duration seems beyond what could be explained by purely situational factors” (p. 626).

In summary, relatively few empirical investigations (22 in total) and two case studies have been located that have explicitly explored the issue of the association between personality variables (most of which appear to have assessed traits) and aspects of the grief response. Most of these studies have reasonable numbers of participants for bereavement research (mean  $N = 83$ , range = 29 - 193). Yet, personality features were measured (and apparently conceptualized) in different ways, as were post-loss or adjustment reactions. Keeping these limitations in mind, it remains the case that in all

but two of the above reports (Thompson et al., 1995; Young, 1984; in both of which null results may have been secondary to sample characteristics and questionable methodological practices), personality variables evidenced significant associations with some aspect(s) of the grief response.

Importantly, the bereaved samples studied in the above-noted investigations seldom included college-aged students, the sample of interest in the present investigation. The largest proportion of these studies ( $n = 10$ ) focused on spousal loss, with sample mean ages reported as at least 52 years of age in those studies that reported this data. Three of the studies were of bereaved mothers after a pregnancy loss (age of participants reported as ranging from 19-44, with a mean age of 29 reported in one study and median ages of 30 and 33 in the other two). The remainder of the studies had samples of (a) bereaved parents after the suicide of their adolescent or young adult child, (b) bereaved mothers after the death of their child, (c) adolescents after a sibling-loss, (d) death of "a loved one" in an elderly sample, and (e) two utilized samples that mixed losses of spouses, parents, adult children, or children (mean age ranging from 39 to 53 across the different relational groups). As such, it is apparent that a paucity of empirical work has yet been done to examine the contribution of personality variables to grief reactions in young adults. Further, regarding the kinship/relational characteristics between those bereaved and the deceased, in none of the above noted-investigations were friends or grandparents of bereaved participants included among the deceased individuals (with these types of relationships composing the majority of the losses in the present sample).

### The Relationship Between Pre- and Post-Loss Personality

This issue has been previously broached in the discussion of Sanders' (1979) study, whose results provided evidence that some personality characteristics remained fairly constant over the 18 - 24 month period *after* a loss had been incurred (see also Middleton et al., 1997 above). Also relevant to this issue is the work previously referenced by Horowitz et al. (1993), as these authors noted that "bereavement itself casts aspects of personality into a bolder manifestation so that features of personality may be rendered *more* [italics added] recognizable" (p. 263). Instead of change, we

again see continuity of personality through life events (see also McCrae & Costa, 1990), a highlighting of habitual modes of relating to self and world. Further, in considering evidence that anxiety is a common component of the bereavement experience (see Rando, 1993; Worden, 1991a), Horowitz et al. (1993) noted that “a portion of any bereaved sample, however, will tend to exhibit more severe anxiety states. These individuals also tend to evidence *a previous history of anxious states of mind* [italics added]... Thus, individuals prone to the chronic experience of anxiety are most likely to exhibit excessive anxiety during bereavement” (p. 266).

Others have also spoken to this issue. Rando (1984) noted that “the mourner will tend to grieve in much the same manner in which the rest of her life has been conducted” (p. 45), and in discussing the highly individualized nature of grief, Rando (1991) made the point that “as a mourner, you are more like yourself before the loss than you probably are like other bereaved people who have suffered the same type of loss” (p. 47). Schneider (1984) wrote that:

...new behaviors rarely occur even in the best of circumstances. It is unlikely that under the stress of grief, people are able to devise new ways of behaving that have not been present before. The exhibited behaviors may be temporarily exaggerated, primitive, or controlled by feelings of panic, rage, or desolation, but as Kubler-Ross (1968) and others have noted, *people grieve as they live*. (p. 97)

Although they acknowledge that “certain types or degrees of stress” (including “catastrophic stressors”) can alter basic dispositions, Costa and McCrae (1991) report that normal life stressors (including bereavements) do *not* have major effects on personality (also, personal communication with Robert R. McCrae, February 1, 1997). Some empirical research has also documented that personality in adulthood is resistant to change secondary to the occurrence of life events and changing life circumstances (Magnus, Diener, Fuhita, & Pavot, 1993). Finally, I will cite Osterweis et al. (1984), who stated that:

Clinicians generally agree that such [preexisting personality] factors do influence every aspect of the grief experience, ranging from the way the loss is initially perceived to the way it is or is not resolved. Habitual styles of perception, thought, coping, and defense determine how a person experiences and handles all life situations, and these same modes are called upon to deal with the stress of bereavement. Clinical experience has shown that people who are characteristically

more flexible and able to use more mature coping strategies will deal with bereavement more effectively than others. Those who are psychologically healthier prior to bereavement are expected to experience the pain of loss, but are viewed as unlikely to become overwhelmed or unduly frightened by their feelings. (p. 58)

These authors also noted that when it is seen in the context of crisis theory, bereavement is a stressful life event “that highlights preexisting personality problems that previously may have lain dormant or did not seriously interfere with the person’s ability to function...the loss intensifies and exaggerates already existing problematic ways of coping and defending” (p. 63).

The above discussion rests on *assumptions* about the stability of personality *through* the course of a major bereavement experience. This is the case because published data that directly address this issue are, to the best of my knowledge, essentially non-existent. However, a study by McCrae and Costa (1988) that examined the long-term outcomes of bereavement does provide some interesting (cross-sectional) data. These authors reported the results of a 10 year follow-up of persons who took part in the National Health and Nutrition Examination Survey (NHANES) I Epidemiologic Follow-up Study. In this study, persons (original  $N = 14,407$ ) were administered a variety of self-report instruments (tapping variables of social and psychological functioning) and were re-assessed on these and some additional instruments (NEO-PI Extraversion and Openness to Experience) some 10 years later.

Analyses presented focused on comparing the following three groups of persons on these measures: (a) those who were married at the time of the initial testing and married at the follow-up, (b) those who were widowed initially and widowed at follow-up, and (c) those who were married initially and widowed at follow-up. Very few differences were found across the groups, leading the authors to highlight the “resilience” of persons in the face of difficult life events. The unfortunate thing here is that the personality measures were administered only at the follow-up testing, such that pre-post comparisons (within group and between group) could not be drawn for these variables. However, the data did show that no significant differences existed between the long-term married, the long-term widowed, and those widowed between the surveys in terms of the basic personality dimensions of Extraversion and Openness to

**Experience.** As these results are derived from a cross-sectional methodology, the data are silent on the issue of whether bereavement had an impact on these traits.

Let me close this section with an argument used by McCrae and Costa (1988), bearing on the issue of functioning after bereavement, that is very similar to that noted above by Rando (1993). To this issue they stated that:

Depression following bereavement need not be due to bereavement: prior dispositions, or an interaction of dispositions with the experience of bereavement, may be responsible. Characteristics of depressed widows and widowers, such as few social supports (Costa et al., 1985) or the use of ineffective coping strategies (McCrae & Costa, 1986), may instead be correlates of their personality traits, with no causal influence on the process of recovery from bereavement. Prospective longitudinal studies, in which individuals are used as their own controls, provide the best way to avoid these problems. (p. 139)

In light of the lack of such prospective research, the following tentative conclusions are offered regarding the relationship between pre- and post-loss personality. It appears from the available literature that (a) premorbid (i.e., existing before the loss event) personality, although perhaps being accentuated in certain respects, will maintain the basic aspects of its structure, and that (b) the structure does influence the ways in which grief is experienced. In the absence of measures of personality both before and after a bereavement experience however, the specific question of personality stability through major bereavement experiences remains an empirical question (McCrae & Costa, 1988; Wortman & Silver, 1989). It may well be the case that certain types of (catastrophic) bereavements are more likely than others to alter basic dispositions to some degree (e.g., suicidal or homicidal deaths, see Costa & McCrae, 1991), but this too remains an empirical question, perhaps to be addressed in future longitudinal (i.e., repeated measures) research.

### **Summary and Conclusions**

Given the literature reviewed above, what kind of conclusions are apparent? I would like to stress the following four main points:

(1) First and foremost, the relationship between personality variables and grief reactions has hardly been studied in a systematic/empirical fashion. There exists a clear imbalance between the weight given to personality in speculative and theoretical



pronouncements and the amount of empirical examination that has been done. This paucity of empirical literature makes the drawing of conclusions tenuous.

(2) The most immediately apparent link between personality traits and grief involves the construct of neuroticism. It appears that persons who manifest emotional instability (i.e., neuroticism - however defined) do worse in terms of adapting to a major loss than do persons who are relatively more emotionally stable (Bowlby, 1980; Lindemann, 1944; Parkes, 1972, 1985, 1990; Parkes & Weiss, 1983; Sanders, 1979; Sheldon et al., 1981; Stroebe & Stroebe, 1987; Vachon et al., 1982a).

(3) It is apparent that the term personality means different things to different people. More properly stated, different variables have been assessed under the auspices of what constitutes an individual's personality in the literature previously reviewed. While this presents no grave error, it is problematic in that these studies tend to ignore vast portions of that which makes any given individual unique. In other words, these studies have not comprehensively assessed personality at the trait level.

(4) Much of the literature on risk factors that was reviewed focused on delineating those factors that contribute to "pathological" or other excessively problematic patterns of grieving (e.g., Alarcon, 1984; Bowlby, 1980; Horowitz et al., 1993; Lindemann, 1944; Parkes & Weiss, 1983). The focus on determining causes for pathological outcomes has, it appears, resulted in part of the picture being ignored, that being the relationship of personality traits to particular components of grief. Whether one wishes to call any given pattern of grief "pathological" or "complicated" or "disordered," one cannot dismiss the fact that there is tremendous variability in the ways in which grief is experienced across individuals (Averill, 1968; Cowles & Rodgers, 1991; Rando, 1991, 1993; Vargas et al., 1989; Zisook & Shuchter, 1986). Further, Parkes (1990) pointed to a methodological shortcoming in many studies of grief, this being the use of global measures of "good" and "bad" outcome instead of "attempting to link particular predictors to particular types of grief" (p. 309).

### **Statement of Rationale and Research Question**

This investigation was conducted to bridge a gap that the author perceives in the bereavement literature - to look at the ways in which personality traits and styles relate to the *specific grief reactions* that bereaved young adults experience after the loss of a close other. The relatively limited degree of empirical evidence relating personality traits to grief reactions has been demonstrated above, as has the lack of empirical work associating personality traits with grief in recently-bereaved college-age samples. As such, it was with the hope and expectation of furthering knowledge about the associations between personality traits and grief in college students (without doing injustice to the multifactorial nature of the subject matter) that this research project was undertaken.

The overarching research question for the present investigation is as follows: Do the personality traits or styles (as defined by the results of formal personality trait measures) of recently bereaved persons relate to the nature and/or intensity of their grief reactions that arise from the loss by death of a known other? The null hypothesis is thus that personality traits and styles bear no systematic relationship to the nature, frequency, or severity of reported grief reactions in bereaved individuals.

#### **Hypotheses:**

The primary hypotheses for this study are as follows:

- (1) "Normal" personality traits (as assessed by the NEO scales) will be differentially predictive of reported grief reactions (nature, frequency, and intensity). More specifically, neuroticism (and its core facets) will prove to be the most important of the normal-range personality traits assessed in terms of correlating with grief. Higher neuroticism scores will be associated with more frequent or intense grief across each of the grief dimensions assessed.
- (2) Participants with higher scores on clusters of traits that define "pathological" styles (as assessed by the PDQ scales) will report the experience of higher grief levels. More specifically, higher levels of DSM-IV cluster B traits (i.e., Borderline, Histrionic, and Narcissistic) and cluster C traits (i.e., obsessive-compulsive, dependent, avoidant) should relate to more difficult grieving. Cluster A traits (i.e., paranoid, schizoid,

**schizotypal) should demonstrate lower relationships than cluster B and C traits to the grief dimensions.**

**To comment on the avoidant and schizoid styles and the discrepancy in the hypotheses between these styles noted above, while the avoidant person is capable of developing intimate interpersonal relationships (but fears doing so), the schizoid person lacks the desire and/or ability to do so. As such, persons with schizoid traits would not likely have developed a high degree of intimacy in their relationship with the deceased, and as such should have, in one sense, less of a sense of loss.**

## CHAPTER II

### METHOD

#### Research Design

This research project is a between-subjects correlational design.

#### Participants

Participant demographic characteristics. The final sample for this investigation was composed of 170 students enrolled in introductory psychology classes at a mid-sized eastern Canadian university. This sample included 116 women (68.2%) and 54 men (31.8%), with a mean age of 21.1 years ( $SD = 4.1$ ; range = 18 - 40 years). Racial status was primarily White (81.2%), with Indian (7.6%), Oriental (7.1%), Black (2.9%), and Latin American (0.6%) persons composing the remainder. On average, the respondents had completed 14.2 years of education ( $SD = 1.6$ ), and marital status was largely single (93%).

Respondents had been bereaved an average of 14.7 months ( $SD = 9.0$ ; range = 1 month to 36 months) prior to their participation in this study, with the participants mean age at the time of the decedent's death being 19.9 years ( $SD = 4.1$ ; range = 16 - 38 years). Regarding the kinship relationship between the respondents and the decedents, 156 (91.7%) of the deceased individuals were non-immediate family members, while 14 (8.3%) were first-degree family members. In the non-immediate family categories, grandparents (36.5%) and friends (24.1%) predominated, while death of a parent accounted for 86% of the first-degree deaths. The mean length of relationship with the decedent was 15.4 years ( $SD = 7.5$  years), with 64.1% of respondents indicating that they had known the decedent since their childhood years. Thirteen respondents (7.6%) reported that they were living with the person at the time of his/her death.

An additional 56 participants completed the questionnaire package but were excluded from further analysis for the following reasons: (1) the death occurred over 3 years prior to study participation ( $n = 13$ ), (2) multiple deaths were responded to ( $n = 10$ ), (3) relationship with the deceased was classified as "not very close at all" ( $n = 9$ ), (4) the death occurred within the two weeks prior to the date of study participation ( $n$

= 4), (5) date of death not given ( $n = 3$ ), (6) large amount of missing data ( $n = 2$ ), (7) death of an unborn child ( $n = 1$ ), and (8) questionable data ( $n = 1$ ). Eleven more participants were excluded due to indications of invalidity on questionnaire validity scales (see Procedure section).

### **Measures**

#### **NEO Five-Factor Inventory - Expanded Form (NEO-FFI; Costa & McCrae, 1992).**

The NEO-FFI is a 60-item short-form version of the 240 item NEO PI-R (Costa & McCrae, 1992). The NEO-FFI provides information on the five basic dimensions (termed “domains”) of “normal-range” personality (i.e., Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness) as derived in factor analytic studies of person’s self-ratings on adjective descriptors. These domains represent “multifaceted collections of specific cognitive, affective, and behavioral tendencies” (Costa & McCrae, 1995, p. 23). The NEO-FFI scales are composed entirely of items from the NEO PI-R. On the NEO PI-R, the domain scales are subdivided into six facet scales each. These facet scales represent core defining characteristics (“narrower” lower level traits) of their respective global traits (i.e., they cluster to define the domains).

Respondents completed an expanded 96-item form of the NEO-FFI, which included (a) all items of the NEO-FFI (to obtain domain scores), and (b) the NEO PI-R items necessary to obtain scores for the 6 facet scales of Neuroticism (Anxiety, Angry Hostility, Depression, Self-Conscientiousness, Impulsiveness, and Vulnerability). The NEO-FFI domain scales are composed of 12 items each, while the 6 facet scales are composed of 8 items each (some overlap exists between the items on the NEO-FFI and the facet scales, thus the total number of items completed by participants equaled 96). Please refer to Appendix A (pp. 124-126) for an elaboration of the characteristics tapped by the five global factors and the six Neuroticism facet scales.

All items are rendered in the form of statements (e.g., “I rarely feel lonely or blue,” or “I often feel helpless and want someone else to solve my problems”) which are responded to on a 5-point Likert-type scale ranging from “strongly disagree” (scored 0) to “strongly agree” (scored 4). Item responses were summed to derive the 6 facet and 5 global domain scale scores, and appropriate T-score conversions (based on

age group [college age or adult] and gender) were applied (Costa & McCrae, 1992).

Psychometrically, the internal reliabilities (Coefficient alpha) for the 12 item FFI domain scales are .86, .77, .73, .68., and .81 for N, E, O, A, and C, respectively, while alphas for the 8-item Neuroticism facet scales range from .68 to .81 (Costa & McCrae, 1992). Long-term follow-ups (i.e., six and seven years) with the NEO-PI have demonstrated very adequate test-retest reliability coefficients (Costa & McCrae, 1992). Content validity is taken into account in that six distinct core facets are used to sample each global domain and non-redundant items were selected to measure each facet (Costa & McCrae, 1992). Factor analytic results support the assignment of facets to domains (Costa & McCrae, 1991), and the facets (within each domain) demonstrate differential validity as assessed by their respective correlates (Costa & McCrae, 1991, 1995).

Personality Diagnostic Questionnaire-4+ (PDQ-4+; Hyler, 1994). The PDQ-4+ is an objective self-report measure designed to assess the presence of the diagnostic criteria listed in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) for each of the 10 Axis II personality disorders (PDs) and the two PDs proposed for further study. The PDQ-4+ is the most recent revision in a series of measures that have tapped PD pathology through self-report by assessing the criteria listed in prior DSM versions. The original PDQ (Hyler, Rieder, & Spitzer, 1983) utilized DSM-III (1980) diagnostic criteria, while the PDQ-R (Hyler & Rieder, 1987) utilized DSM-III-R (1987) diagnostic criteria. The PDQ measures can be used for categorical classification (i.e., presence or absence of PDs) and/or as a dimensional measure of DSM PDs. In all, the PDQ and its revisions have been utilized in over 100 published studies.

The PDQ-4+ is composed of 99 face-valid items. Each item corresponds directly to a single DSM-IV PD diagnostic criterion. Respondents answer each item by selecting "true" or "false," so as to describe how characteristic the statement is in terms of how they have "tended to feel, think, and act over the past several years." A response of "true" is always scored in the pathological direction. The inventory yields two brief validity scales: the "too good" (TG) scale to tap underreporting, and the "suspect

questionnaire" (SQ) scale to detect persons who are either lying, responding randomly, or not taking the questionnaire seriously. The 10 DSM-IV PD categories assessed are as follows: (1) schizoid, (2) schizotypal, (3) paranoid, (4) antisocial, (5) histrionic, (6) narcissistic, (7) borderline, (8) avoidant, (9) dependent, (10) obsessive-compulsive, and the two PDs proposed for further study, the (11) depressive and (12) passive-aggressive conditions (see Appendix B, pages 127-129, for brief descriptions of the pathology of each of these PDs). Scale scores (dimensional) represent the number of DSM-IV criteria for each disorder that were endorsed. A "total" score is also calculated by summing the number of pathological responses endorsed across all PD categories. As with previous PDQ versions, a total score  $> 30$  is thought to indicate a substantial likelihood that the respondent has a significant personality disturbance.

Given that the PDQ-4+ represents a substantial revision from prior versions, the extent to which psychometric information (i.e., reliability and validity) derived from the PDQ and PDQ-R generalizes to the present version is not certain. Further, the relative recency of the PDQ-4+ means that very few published studies have utilized this instrument. However, the construct validity (Johnson & Bornstein, 1992) and convergent validity (Trull, 1993; Wierzbicki & Gorman, 1995) of the PDQ-R have been supported. Regarding scale internal consistency, Trull (1993) reported PDQ-R (KR-20) coefficients that averaged .52 across the scales (ranging at the unacceptably-low end from .26 [Avoidant] and .27 [Schizoid] to highs of .74 [Antisocial] and .71 [Borderline]). In a recent study using the PDQ-4+ (Fossati, Maffei, Bagnato, Donati, Donini, Fiorilli, Novella, & Ansoldi, 1998), KR-20 values averaged .61 across the scales, ranging from .46 (OCPD) to .74 (Dependent), with three scales demonstrating a KR-20 value of at least .70 (Dependent, Avoidant, Borderline).

As Trull (1993) noted, inventories that purport to assess personality disorders should demonstrate high test-retest reliability. Data provided by this investigator indicated that PDQ-R scale scores were relatively stable over a 3-month period (average scale test-retest reliability value = .66, ranging at the low end from .50 [Avoidant] to a high of .75 [Antisocial and Obsessive-Compulsive]). Further, PDQ-R profiles (overall shape of the profiles) were fairly stable over a 3 month interval

(average profile similarity correlation = .72).

In concert with the data (Hunt & Andrews, 1992; Wierzbicki & Gorman, 1995) and usage (e.g., Lyons et al., 1995; Reich & Braginsky, 1994) of others, the PDQ was not used to make diagnostic judgements (i.e., clinical diagnoses) for the purposes of the present study: rather, the raw scale scores were used as dimensional indicators of participants' levels of personality traits across the 12 PD dimensions.

Grief Experience Inventory (GEI; Sanders et al., 1985). The GEI is an objective self-report inventory that was constructed to provide a standardized means of collecting information regarding persons grief experiences following the loss of a close other. It has been used in a number of studies of grief and bereavement (McIntosh, Arnett, & Thomas, 1992; Sanders, 1979) and it is one of the most comprehensive (i.e., multidimensional) of the available grief measurement instruments (Hansson, Carpenter, & Fairchild, 1993).

The GEI is composed of 135 statements that are frequently associated with grief experiences. Each item is rendered in a true-false format, with in excess of 90% of the items worded in the present tense to allow for the tracking of changes in grief over time. The majority of the items are keyed to true responses, such that an acquiescent response style may artifactually inflate the scales. The inventory yields three validity scales (two of which were empirically derived) and nine rationally derived bereavement scales. The three validity scales (Denial, Atypical Responses, and Social Desirability) assess the test-taking attitude of the respondent. The bereavement scales sample various dimensions of grief, including (1) Despair, (2) Anger/Hostility, (3) Guilt, (4) Social Isolation, (5) Loss of Emotional Control, (6) Rumination, (7) Depersonalization, (8) Somatization, and (9) Death Anxiety (see Appendix C on pages 130-131 for descriptions of the constructs tapped by these scales).

GEI scale scores are expressed as T-scores (Mean = 50, SD = 10, based on N = 693 in the normative sample), with higher T-scores indicating greater intensity of the measured grief reaction. The GEI manual lists validity scale coefficient alphas of .34 (Social Desirability), .52 (Atypical Responses), and .59 (Denial), while bereavement scale alphas range from .52 (Guilt) to .84 (Despair). Construct validity is supported by



data demonstrating that GEI scales are able to differentiate (a) bereaved from non-bereaved persons, and (b) grief following from losses of persons of different kinship relationships (i.e., loss of a parent, spouse, or child) (Sanders et al., 1985).

Grief Experience Questionnaire (GEQ; Barrett & Scott, 1989). The GEQ is an objective, self-administered instrument designed to tap various dimensions of grief. Item selection was based on the deductive (rational) approach of scale construction, with items derived primarily from statements of suicide survivors as described in the published literature and from reasoned expectations as to the nature of their grief reactions.

The GEQ consists of 55 face-valid items concerning the frequency of various grief reactions, each with a 5-point Likert response scale ranging from "Never" (scored as 1) to "Almost Always" (scored as 5). Higher raw scores on any given scale indicate a greater likelihood that the specific grief reaction has been experienced. Scale scores are derived by summing the responses of the subscale items. The original inventory yielded 11 rationally-derived subscales and a "total" grief score (derived by summing across all of the items). However, factor analytic results (Bailey, Dunham, & Kral, 1998) support the existence of 8 meaningful factors. These factors/dimensions were utilized in the present investigation, and are as follows: (1) Abandonment/Rejection, (2) Stigmatization, (3) Search for Explanation, (4) Guilt, (5) Somatic Reactions, (6) Responsibility, (7) Self-Destructive Orientation, (8) Shame/Embarrassment (see Appendix D, pages 132-133, for descriptions of the constructs tapped by the scales). Bailey et al. (1998) reported moderately high to high scale alpha coefficients, ranging from a low of .70 (Shame/Embarrassment) to a high of .87 (Abandonment/Rejection).

The wording of the GEQ items was modified slightly for the present study, with the items referring to the deceased "person" rather than "spouse" as Barrett and Scott (1989) had in the original version of the measure. In addition, the original instructions directed respondents to judge how frequently they experienced any given reaction "in the first two years" after the death. In the present study, this wording was changed to "since the death." This change in wording was necessary to account for the slightly wider variation in elapsed time since the death that is characteristic of the present

sample (up to 3 years).

**Author-devised questionnaire.** The participants also completed a 46-item questionnaire designed by our research team to tap (a) additional demographic-type information, as well as information concerning aspects of (b) the death and its circumstances, (c) the respondent's grief experience, and (d) other loss-related variables that may play a part in the determination of one's grief. Please refer to Appendix E (pages 134-139) for a copy of this questionnaire.

A total of 33 (non-personality related) variables (i.e., demographic, situational, or contextual variables that may relate to grief) were assessed in this questionnaire. These variables were culled from the published grief literature as potentially important moderators of the grief response. These 33 variables can be clustered into the following 14 categories: (1) six variables that tap the suddenness/expectedness dimension of the loss, (2) five variables that tap into aspects of the relationship with the deceased, (3) four participant-related demographic variables, (4) four variables tapping post-death support/counseling, (5) respondent involvement at the death scene (3 variables), (6) two decedent-related demographic variables, (7) perceived preventability of the death (2 variables), (8) mode of death, (9) perceived "impact" of the loss (question derived from Sheldon et al., 1981), (10) assignment of blame onto somebody for the death, (11) respondent spiritual beliefs, (12) prior respondent bereavement experiences, (13) respondent state of emotional well-being in the few weeks before the death, and (14) elapsed time since the death.

Given the exploratory nature of this research project, the above variables were all included based on the philosophy that it would be preferable to be quite inclusive in assessing for the associations between potentially important moderator variables and grief responses. Please refer to Table 1 (p. 54) for a listing of these 33 variables, which composed the group out of which the covariates for later hierarchical multiple regression analyses were derived.

Table 1

**Non-Personality Related Variables (i.e., potential covariates)**

- 
1. elapsed time since death
  2. age of respondent at time of death
  3. length of relationship with deceased
  4. "closeness" to deceased
  5. current level of emotional closeness/"attachment" to deceased
  6. quality of relationship with deceased
  7. state of emotional well-being shortly before the death
  8. evaluation of the "impactfulness" of the death
  9. participant feeling they personally could have done something to prevent the death
  10. importance of spiritual beliefs
  11. total number of bereavement experiences
  12. current age of respondent
  13. respondent years of formal schooling completed
  14. age of deceased
  15. sex of respondent
  16. sex of deceased
  17. advance warning of the death
  18. anticipation that the death would occur when it did
  19. death viewed as preventable
  20. blame somebody for the death
  21. obtaining professional help
  22. death - expected
  23. death - unexpected
  24. death - slow
  25. death - sudden
  26. mode of death (natural vs. unnatural)
  27. respondent belief that others could understand their grief
  28. respondent attending bereavement support group meetings
  29. respondent finding the body
  30. respondent seeing the death occur
  31. respondent trying to rescue the person
  32. presence of a supportive (non-professional) to talk to
  33. respondent living with deceased at the time of death
-

### Summary of Variables Measured

In summary, a total of 17 standardized scales served as the dependent variables in this study (9 scales from the GEI and 8 from the GEQ). Regarding independent variables, a total of 23 were measured (11 NEO scales, 12 PDQ-4+ scales), while 33 non-personality related variables (i.e., potential covariates) were derived from the author-devised questionnaire. For convenience, a master list of all variables measured can be found in Appendix F (pages 140-143). This Appendix lists (a) all variables, (b) their status as independent, dependent, and/or demographic variables, (c) whether they were rendered in a categorical (dichotomous or discrete) or continuous format, and (d) from what questionnaire they were derived.

### Procedure

Recruitment of participants took place during regularly scheduled introductory psychology classes. All students in attendance were informed that if they had been bereaved within the past two to three years, they could volunteer to participate in a questionnaire-type study on grief in exchange for class credit. Signed informed consent was obtained from all participants (for the Consent Form see Appendix G, p. 144), and verbal instructions were also given to participants in which it was emphasized that they were free to withdraw from participation at any time without penalty. In the case where a participant had been bereaved more than once in the preceding several years, they were instructed to answer the questions with reference to their grief over that deceased person to whom they had been the closest. All participants were instructed to complete each questionnaire according to standard printed instructions, and the multiple questionnaires were completed in a standardized (non-counterbalanced) order.

Data from 11 participants were excluded from further analysis due to scores on the validity scales of the PDQ-4+ ( $n = 3$ ) or GEI ( $n = 8$ ) that exceeded expected limits. As per instructions given for the PDQ-4+ (Hyler, 1994), raw scores of 2 or higher on the "Too Good" validity scale indicate an "underreporting" of personality "pathology." Application of this criterion resulted in the exclusion of data on 3 participants. Regarding the GEI, manual instructions recommend elimination of research participants who obtain T scores of 70 or higher on either the Denial or

Atypical Response scales (Sanders et al., 1985). This resulted in the exclusion of 8 participants who obtained T scores of 70 or higher on the Atypical Response scale. Therefore, the final  $N = 170$ .

### Statistical Power

A power analysis (Cohen, 1977) was performed to ensure that the sample size ( $N = 170$ ) was sufficient to detect the association between personality variables and grief reactions *if such an association was indeed present*. The “power” of a statistical test is the probability that it will yield statistically significant results. Power values can range from 0 to  $> .995$ , with higher values indicating a greater chance of detecting effects. Cohen (1977) proposed that a power value of .80 be utilized as the (minimal) acceptable value. Relating this value to the present study, this would mean that 80% of significance tests performed on random samples with multiple regression techniques (at a specified alpha level, with a specified number of predictor variables, and at a specified effect size level) will yield an  $F$  value that results in rejection of the null hypothesis. Cohen (1977) further defined a medium effect size as  $R^2 = .13$  in multiple regression analysis (i.e., that the set of IVs [personality variables] accounts for 13% of the variance in the DV, after variance attributable to the covariates is accounted for). Thus, positing (1) an a priori significance level set at .01, (2) 12 IVs (at most) in a given regression equation, and (3) that personality variables will account for 13% of the variance in a given grief reaction (or a “medium” effect size), power for the present study was calculated to be greater than .95. As such, this study has a very high likelihood of detecting an association between personality traits and grief if such an association does indeed exist in this sample.

### Overview of Data Analysis

Preliminary data screening. Prior to conducting any descriptive or correlational-type analyses, basic data screening activities were performed to (a) ensure the accuracy of data entry, (b) to assess the presence and pattern of missing data, (c) to assess the variable distributions for assumptions of normality (i.e., skewness and kurtosis) and to apply appropriate data transformations as required, and (d) to assess for the presence of univariate outliers among dichotomous variables.

**Preliminary analyses.** Preliminary analyses were performed in the following sequence. First, decedent-related demographic characteristics, bereavement-related characteristics of the participants, and the relational characteristics between the participants and the decedents are reported. Second, the NEO domain and facet scale raw scores and GEI raw scores were converted to T scores, and the means and standard deviations of the four standardized instruments (NEO scales, PDQ-4+, GEI, and GEQ) were calculated. Third, internal consistency coefficients (Cronbach's coefficient alpha) for the scales of the NEO, PDQ-4+, GEI, and GEQ were calculated and compared with published (normative) data to assess the degree to which this aspect of the scale data compared to empirically-based expectations.

**Primary analyses.** Correlational analyses, principal components analysis, and hierarchical multiple regression analyses were used to investigate the relationship(s) between participant personality dimensions (normal-range personality traits and "pathological" styles) and components of grief. These analyses were performed in the following sequence. First, bivariate correlations were computed between all relevant variables. Second, given the considerable overlap among the grief scales (see Table 5, pages 72-73), a principal components analysis was applied to summarize these variables into a smaller number of orthogonal components. Third, selection of covariates (to be utilized in the hierarchical multiple regressions) was conducted by examining the correlations between the non-personality related variables and each of the outcome variables (i.e., the grief components). Finally, seven hierarchical multiple regression analyses were computed.

Given that this study is properly classified as embodying a correlational design (as contrasted with a group-comparison design), multiple regression analyses are appropriate to assess the relationships between personality variables and grief. Cone and Foster (1995) noted that correlational designs are often most appropriate when IVs are conceptualized as natural continua (as are the personality traits and styles in this study) or when one wants to examine the best combination of IVs to predict a DV. These authors also noted that correlational designs are often viewed as more appropriate than group-comparison designs when the IVs are not manipulated (as in the

present case). Further, they cited Cohen (1983) in noting that “creating groups by dichotomizing or trichotomizing on continuous measures (our DVs [grief scales] and IVs [personality scales]) and then using group comparison instead of correlational statistics results in loss of statistical power” (p. 177). Tabachnick and Fidell (1989) also noted that if continuous IVs are analyzed through ANOVA procedures, they must first be converted into discrete variables, a process wherein information is lost. Given these considerations, it was decided to utilize multiple regression analyses to determine whether or not personality variables are significantly predictive of grief reactions.

The patterns of correlations (between the DVs and the 27 non personality-related variables) were examined to decide whether to control for the influence of some of these variables in the multiple regression analyses to be computed. That is, if any of the non personality-related IVs correlated highly and significantly with the outcome (grief) variables, these variables were entered as covariates in hierarchical multiple regression equations to statistically remove their influence.

Predictors (IVs) were combined in the following manner across the regression models. For each criterion variable (i.e., the grief “components” identified in the principal components analysis), an initial regression analysis was conducted which included as predictors the five broad NEO personality factors (i.e., neuroticism, extraversion, openness, agreeableness, and conscientiousness). This model was run to determine the association between the five normal-range personality dimensions and the respective grief reactions. In the one case in which neuroticism was the normal-range trait most predictive of the grief reaction under study, a follow-up regression analysis was computed which included as predictors the six facets of neuroticism (i.e., depression, anxiety, self-consciousness, angry hostility, vulnerability, and impulsiveness). This analysis allowed for assessment of the particular facets of neuroticism that were relatively more influential in the prediction of particular grief reactions. Regression analyses were then run for each DV wherein the 12 personality pathology scales of the PDQ-4+ were entered as potential predictors. In summary then, a total of seven regression models were run on the three grief components.

All data analysis was performed using SPSS Professional Statistics software (SPSS

**Inc., 1997b). In an effort to protect against experiment-wise inflation of Type I error rate, an alpha of  $p < .01$  was established a priori as the criterion of significance for all statistical tests.**



## CHAPTER III

### RESULTS

#### Preliminary Data Screening

Accuracy of data input, missing data, and distributions. Prior to conducting any descriptive or correlational-type analyses, basic data screening activities were performed to (a) ensure the accuracy of data entry, (b) to assess the presence and pattern of missing data, (c) to assess the variable distributions for assumptions of normality (i.e., skewness and kurtosis) and to apply appropriate data transformations as required, and (d) to assess for the presence of univariate outliers among dichotomous variables.

Replacing missing data: Standardized measures. On the GEQ, 6 individual items were left unanswered by 6 of the participants. In each case, the missing data point was replaced with the group mean value of that item (Tabachnick & Fidell, 1989). One participant left blank 25 of the 55 items; no GEQ data were analyzed for this participant. Final  $N$  for the 9 GEQ scales = 169.

For the NEO scales, a total of 27 items were left unanswered by 20 of the participants. Given that these data points were missing in a scattered pattern, the missing data point in each case was replaced with the group mean value of that item (Costa & McCrae, 1992; Tabachnick & Fidell, 1989). Final  $N$  for the 11 NEO scales = 170.

Given that the GEI and PDQ-4+ items are rendered in a true/false format, replacement of missing data with mean values was not possible. It was thus decided that for each of the scales on these two inventories, the allowable percentage of missing responses would be set at a maximum of 10% (per scale). Thus, if on a 12 item scale (e.g., GEI Rumination scale) a respondent left 2 items blank, that scale was not scored. This resulted in slightly unequal numbers of scales being scored for these two measures (final  $N$  for the 9 GEI bereavement scales = 167 - 169 [one respondent did not complete any of the GEI items]; final  $N$  for the 12 PDQ-4+ scales = 170 ( $N$  = 169 for total score)).

**Replacing missing data: Variables from author-devised questionnaire.** Thirty-three non-personality related variables (i.e., potential covariates) were captured in the author-devised questionnaire. Missing data points were recorded for 19 participants on 7 of these variables (4 continuous and 3 dichotomous). Continuous variables (of which there were 15) with missing data were (a) years of education (9 missing data points), (b) time since death ( $n = 3$ ), (c) length of relationship with deceased ( $n = 1$ ), and (d) total number of bereavement experiences ( $n = 2$ ). For these variables, the missing data points were replaced with the group mean value of that item (14, 15 months, 184 months, and 4, respectively). As such,  $N = 170$  for all 15 of these variables. Dichotomous variables with missing data were (a) death viewed as preventable (2 missing data points), and (b) natural vs. unnatural mode of death (2). These missing data points were not replaced.

**Skewness and kurtosis.** Screening for normality (i.e., skewness and kurtosis) was conducted in a two-stage fashion. Initially, the SPSS for Windows Descriptives procedure was utilized to examine all dependent and independent variable distributions for skewness and kurtosis. The test of the significance of deviations from normality utilized was the ratio of each statistic (i.e., skewness and kurtosis) to its standard error, which produces a  $z$  score in each case (SPSS Inc., 1997a; Tabachnick & Fidell, 1989). Using this procedure, those variables attaining  $z$  scores greater than or equal to 3.0 were transformed to bring variable distributions closer to normality and to also improve residuals in the regression analyses. Given the multiple advantages outlined by Tabachnick and Fidell (1989), these variables were transformed prior to searching for outliers. Second, the residuals plots were examined on the regression runs to further assess for non-normality. Following the recommendation of Tabachnick and Fidell (1989), several transformations (i.e., square root, logarithmic, and inverse, with initial reflection where necessary) were tried for each variable, with the transformation that produced the best results for any given variable chosen.

Among the dependent and independent variables, the following scales were square root transformed: (1) PDQ-4+ Schizoid scale, (2) PDQ-4+ Histrionic scale, (5) PDQ-4+ Borderline scale, and (6) PDQ-4+ Antisocial scale. The following variables were

transformed logarithmically: (1) GEQ Stigmatization scale, (2) GEQ total score, (3) GEI Guilt scale, (4) GEI Social Isolation scale, (5) GEI Somatization scale, and (6) PDQ-4+ Dependent scale. Inverse transformations were required for the following variables: (1) GEQ Abandonment/Rejection scale, (2) GEQ Responsibility scale, and (3) GEQ Self-Destructive Orientation scale.

Among the potential covariates assessed, the following variables were square root transformed: (1) participant feeling that they could have done something to have prevented the death, and (2) importance of spiritual beliefs. The following variable was transformed logarithmically: (1) respondent total number of bereavement experiences.

Variables with significant negative skewness were first reflected and then transformed. Interpretation of a reflected variable is the opposite of what it would have been without the reflection (Tabachnick & Fidell, 1989). These variables were (1) current level of emotional closeness to the deceased, (2) quality of relationship with deceased, and (3) respondent evaluation of the “impactfulness” of the death.

Although exhibiting significant skewness and/or kurtosis, the following variables were not transformed due to interpretive difficulties that would result: (1) age of respondent at the time of death, (2) current age of respondent, (3) respondent years of formal schooling completed, and (4) age of deceased.

Results of the above transformations were generally quite favorable. Please refer to Table 2 (pp. 63-64) for skewness and kurtosis values (z scores) on the above variables before, and where necessary, after transformation.

Outliers among dichotomous variables. As cited in Tabachnick and Fidell (1989), Rummel (1970) recommended that dichotomous variables with markedly uneven splits between the categories (i.e., 90 - 10) be deleted from consideration for further analyses. The rationale given for this recommendation was that correlations between such variables and others are attenuated and that the scores in the category with 10% of the cases are more influential than those in the category with 90% of the cases. Six such variables were detected and subsequently deleted: (1) respondent attending bereavement support group meetings (94.7% did not attend at least one meeting), (2) respondent finding the body (97% did not), (3) respondent seeing the death occur

Table 2

**Skewness and Kurtosis of Outcome Measures (GEI, GEO), Personality Variables (NEO, PDO-4+), and Potential Covariates Before and After Transformations**

Variables	Skew (z score)		Kurtosis (z score)	
	Before	After	Before	After
<b>GEQ scales (raw scores)</b>				
Abandonment/Rejection <sup>c</sup>	11.4	-2.6	15.1	-2.0
Stigmatization <sup>b</sup>	6.3	2.4	3.3	-1.4
Search for Explanation	-0.6	---	-1.9	---
Guilt	2.6	---	-0.8	---
Somatic Reactions	1.6	---	-1.8	---
Responsibility <sup>c</sup>	17.2	-1.3	43.1	-0.4
Self-Destructive Orientation <sup>c</sup>	8.1	-2.3	6.1	-3.1
Shame/Embarrassment	2.6	---	0.9	---
Total score <sup>b</sup>	5.8	2.1	5.0	1.8
<b>GEI bereavement scales (t scores)</b>				
Despair	2.9	---	-1.3	---
Anger/Hostility	0.7	---	-2.8	---
Guilt <sup>b</sup>	5.5	3.4	3.1	0.5
Social Isolation <sup>b</sup>	3.2	1.1	-0.2	-1.7
Loss of Control	-2.8	---	-1.7	---
Rumination	1.9	---	-2.0	---
Depersonalization	-0.5	---	-2.0	---
Somatization <sup>b</sup>	3.5	1.6	0.1	-1.7
Death Anxiety	-1.5	---	-0.6	---
<b>NEO-FFI domain scales (t scores)</b>				
Neuroticism	-0.5	---	-0.6	---
Extraversion	-0.9	---	-0.5	---
Openness	-0.5	---	-0.6	---
Agreeableness	-0.6	---	-0.8	---
Conscientiousness	-0.7	---	-1.3	---
<b>NEO Neuroticism facets (t scores)</b>				
Anxiety	-0.8	---	-1.3	---
Angry Hostility	0.9	---	-0.7	---
Depression	-0.7	---	-0.8	---
Self-Consciousness	1.7	---	-0.1	---
Impulsiveness	0.4	---	-0.3	---
Vulnerability	0.4	---	-0.5	---

(table continues)

Variables	Skew (z score)		Kurtosis (z score)	
	Before	After	Before	After
<b>PDQ-4+ Scales (raw scores)</b>				
Paranoid	0.4	---	-1.8	---
Schizoid <sup>a</sup>	3.8	1.5	0.2	-2.2
Schizotypal	-0.9	---	-1.6	---
Histrionic <sup>a</sup>	3.1	0.0	0.2	-0.2
Narcissistic	2.1	---	-1.5	---
Borderline <sup>a</sup>	3.3	-0.8	0.1	0.4
Antisocial <sup>a</sup>	5.1	2.1	1.8	-1.4
Avoidant	2.3	---	-1.5	---
Dependent <sup>b</sup>	6.9	0.9	4.5	-2.8
Obsessive Compulsive	0.1	---	-1.6	---
Negativistic	1.6	---	-1.9	---
Depressive	1.1	---	-2.3	---
Total score	0.9	---	-0.6	---
<b>Potential covariates</b>				
elapsed time since death	1.2	---	-2.7	---
age of respondent at time of death <sup>c</sup>	15.5	---	23.8	---
length of relationship with deceased	-1.5	---	0.3	---
emotional closeness to deceased (prior to death)	-0.2	---	-1.7	---
current emotional closeness to deceased <sup>d</sup>	-5.7	2.1	2.3	-1.2
quality of relationship with deceased <sup>d</sup>	-4.5	1.3	1.0	-2.0
emotional well-being shortly before death	-2.8	---	-2.0	---
evaluation of "impactfulness" of death <sup>d</sup>	-3.9	0.4	1.4	-0.9
participant feeling that they personally could have prevented the death <sup>b</sup>	8.5	4.4	3.9	-2.3
importance of spiritual beliefs <sup>a,f</sup>	-1.3	-1.0	-3.2	-3.2
total number of bereavement experiences <sup>b</sup>	8.9	1.4	11.4	-0.5
current age of respondent <sup>c</sup>	16.1	---	25.4	---
respondent years of formal schooling <sup>c</sup>	9.0	---	10.7	---
age of deceased <sup>c</sup>	-0.9	---	-3.6	---

**Note.** z scores for skewness obtained in each case by dividing the value for skewness by the skewness standard error. z scores for kurtosis obtained in each case by dividing the value for kurtosis by the kurtosis standard error. z values greater than or equal to 3.0 are considered significant. Dashes indicate that transformations were not undertaken on these variables.

<sup>a</sup>square root transformation. <sup>b</sup>log transformation. <sup>c</sup>inverse transformation. <sup>d</sup>reflect and square root transformation. <sup>e</sup>transformations not undertaken as interpretation of variable would be adversely affected. <sup>f</sup>reflection prior to transformation did not produce desired results, therefore simply a square root transformation was performed.

(91.1% did not), (4) respondent trying to rescue the person (97.6% did not), (5) presence of a supportive person (non-professional) to talk to (91.8% did have one), (6) respondent living with the decedent at the time of his/her death (92.3% did not). The deletion of these six variables left 27 potential covariates remaining.

Outliers among continuous variables. Given (a) that several regression analyses were run for each of the dependent variables, and (b) that different sets of covariates were utilized across the regression analyses, the search for potential outliers (univariate and multivariate) among the continuous variables was conducted in concert with the running of regression analyses (Tabachnick & Fidell, 1989). Please refer to the upcoming section entitled "Hierarchical Multiple Regression Analyses" (p. 87).

### Preliminary Analyses

Decedent-related demographic characteristics. The decedents were 109 men (64.1%) and 61 women (35.9%), with a mean age of 51.4 years ( $SD = 25.1$ ; range = 1 - 94 years). Mode of death for these persons was reported as follows: 119 natural (70.0%; mostly caused by cancer [ $n = 51$ ] and heart attacks [ $n = 24$ ]), 34 accidents (20.0%), 12 suicides (7.1%), and 3 homicides (1.8%). In two cases (1.2%), mode of death was not reported. As would be expected, grandparents ( $n = 62$ ) composed the majority of individuals dying from natural causes (52%), while friends ( $n = 41$ ) accounted for the majority of accidental and suicidal deaths (67.6% and 58.3% respectively). The majority of the deaths reportedly occurred in either a hospital (41.8%), at the home of the decedent (29.4%), or in the streets (17.1%).

Bereavement-related characteristics of participants. Slightly over half of the respondents (52.4%) reported that they had some advance warning of the death, with 24.7% indicating that they had anticipated that the person would die when they did. For 37.1% of the sample, the death was reported to have been "expected." The death was reported to have occurred in a "sudden" fashion in 30% of the cases, while it was characterized as being "slow" in 24.7% of the cases. Slightly over half (50.6%) reported that they believed that the death was preventable, with 42.4% reporting that they believed that they could have personally done something to have prevented the death (even if just to a slight extent). Regarding assignment of blame for the death

itself, 43.5% of the participants reported that they did blame at least one person for the death (i.e., the deceased, themselves, another family member, a stranger, and/or some "other" person). Regarding some sense of "relief" that the person had died, 88 participants (51.8%) reported no sense of relief that the person had died, while 81 participants (47.6%) did endorse a sense of relief. Regarding the immediate circumstances of the death, 15 respondents (8.8%) reported that they saw the death occur, five (2.9%) reported that they found the body, while four (2.4%) reported that they had tried (unsuccessfully) to rescue the person.

Participants attained a mean score of 6.7 ( $SD = 2.7$ ) on a retrospective rating of their state of emotional well-being in the few weeks before the death (on a Likert scale ranging from 0 ["very poor"] to 10 ["excellent"]), a score not significantly different from their mean present state of emotional well-being (rated on the same Likert scale) was 7.1 ( $SD = 1.8$ ). In addition, respondents reported an average of 3.5 ( $SD = 2.2$ ; range = 1 - 15) prior bereavement experiences (losses of "close" others). This latter figure appears somewhat higher than the mean of 2.81 ( $SD = 1.80$ ; range = 0 - 10) losses of "close" others that was obtained previously in a sample of 735 undergraduates from the same participant population (Bailey, 1993).

Regarding attempts by participants to cope with the loss, the vast majority (91.8%) reported that they have had at least one person (non-professional) with whom they have been able to talk about their feelings regarding the death. However, 27 participants (15.9%) reported that they had spoken to a professional at least once (most frequently, this person was labeled as a psychologist). Further, 17 persons (10%) reported that they had considered joining a bereavement support group, with 9 (5.3%) reporting that they had attended at least one meeting (the mean number of meetings attended by these persons was 2.0 [ $SD = 1.2$ ]). Most of the respondents indicated that they believed that others could understand their grief ( $n = 135$ , 79.4%). Spiritual beliefs appeared to be moderately important as a means for these respondents in coping with their loss (Mean = 5.6,  $SD = 3.4$ ; on a Likert scale ranging from 0 ["not at all important"] to 10 ["extremely important"]). Participants attained a mean score of 7.2 ( $SD = 2.1$ ) on a rating of the extent to which they had "recovered" from their grief (on a Likert scale

ranging from 0 ["have not recovered at all"] to 10 ["completely recovered"].

**Relational characteristics between participants and decedents.** The overall reported "quality" of the respondent's relationship with the decedent was fairly high ( $M = 7.5$ ,  $SD = 2.2$ ; on a Likert scale ranging from 0 ["very poor"] to 10 ["excellent"]), as was the degree of reported "closeness" ( $M = 3.2$ ,  $SD = .89$ ; on a Likert scale ranging from 1 ["not very close at all"] to 5 ["closer than any relationship I've had before or since"]). Participants mean current level of "attachment/closeness" to the deceased was 7.3 ( $SD = 2.4$ ; on a Likert scale ranging from 0 ["not close at all"] to 10 ["extremely close"]).

As an indicator of the "impactfulness" of the loss, participants completed a Likert scale item where the end points were that (a) the death was a "minor upset" (scored as 0) or that (b) the death was "the worst possible disaster" (scored as 10). The sample mean on this item was 7.6 ( $SD = 1.7$ ). In terms of the largest categories of decedents (i.e., grandparents [ $n = 62$ ] and friends [ $n = 41$ ], who accounted for 60.5% of the losses), respondents rated this item at a level of 7 or higher in 67.7% of the cases for the grandparents, and in 75.6% of the cases where friends were lost. These ratings indicated that in this group ( $n = 103$ ) of recently bereaved young adults (77.1% were between the ages of 16-20 when the death occurred), the loss of grandparents (average length of relationship = 19.2 years) or friends (average length of relationship = 7.4 years) was an event that had quite significant repercussions in their developing lives. It is also of note that friend losses were mostly sudden and unnatural in nature (i.e., 23 through accidents, 7 by suicide, 2 homicides, and 9 natural deaths), while the loss of a grandparent was most often an expected event that occurred secondary to natural causes in 61 of the 62 cases.

**Respondent evaluation of the impact of their participation.** Participants also answered two questions to assess their experience in terms of participating in this study. To the prompt "Has responding to the questions in this study made you upset in any way?", 63 respondents (37.1%) answered "yes," while 107 (62.9%) answered "no." However, to the follow-up question, "Do you have any regrets about participating in this study?", all 170 participants responded by answering "no."



**Standardized measures.** With regard to the standardized measures employed, raw score means and standard deviations were calculated for each of the four standardized instruments (NEO, PDQ-4+, GEI, and GEQ). The NEO was scored and the domain and facet scale raw scores were converted into T scores based on instructions in the NEO PI-R Professional Manual (Costa, & McCrae, 1992). Personality Diagnostic Questionnaire - 4+ scale raw scores were calculated according to instructions presented by Hyler (1994). The GEI was scored and scale raw scores were converted into T scores based on instructions in the GEI Manual (Sanders et al., 1985). The GEQ scales were calculated based on the results of previous factor analytic work (Bailey et al., 1998).

Descriptive statistics and scale reliabilities (Cronbach's coefficient alpha) are reported in Table 3 (p. 69) for the personality measures (NEO and PDQ-4+) and in Table 4 (p. 70) for the grief scales (GEI and GEQ). The internal consistency values of the NEO (Costa & McCrae, 1992) and PDQ-4+ scales (Fossati et al., 1998; Trull, 1993) are consistent with those reported elsewhere in the literature. Regarding the generally low PDQ-4+ values, the present author agrees with the suggestion of Trull (1993) who noted that the low homogeneity of many of the PDQ-R scales may be a function of the basic heterogeneity in the DSM PD criteria sets which the PDQ scales directly tap. The scale mean values obtained in this study appear fairly similar to those reported for the PDQ- R based on a similar nonclinical population of 252 undergraduate students (Johnson & Bornstein, 1992). Regarding the grief measures, internal consistency values are quite similar to those reported for the GEI (Sanders, et al., 1985) and GEQ scales (Bailey et al., 1998).

Table 3

**Descriptive Statistics and Coefficient Alpha Values for Personality Measures: The NEO Scales and the Personality Diagnostic Questionnaire-4+ (PDQ-4+)**

Scale (# of items)	n	Mean	SD	Range	Alpha
<b>NEO Domains</b>					
Neuroticism (12)	170	51.9	10.6	24-76	.84
Extraversion (12)	170	52.9	11.5	25-76	.77
Openness (12)	170	53.4	10.6	24-76	.68
Agreeableness (12)	170	49.8	11.4	24-76	.72
Conscientiousness (12)	170	48.0	11.4	24-76	.86
<b>NEO Neuroticism Facets</b>					
Anxiety (8)	170	53.0	9.3	30-76	.69
Angry Hostility (8)	170	51.7	10.2	29-76	.71
Depression (8)	170	52.6	10.9	24-76	.83
Self-Consciousness (8)	170	50.0	10.3	58-76	.65
Impulsiveness (8)	170	50.3	10.7	24-76	.71
Vulnerability (8)	170	50.1	11.4	24-76	.78
<b>PDQ-4+ scales</b>					
Paranoid (7)	170	3.5	1.8	0-7	.61
Schizoid (7)	170	1.3	1.2	0-5	.39
Schizotypal (9)	170	3.1	1.6	0-6	.42
Histrionic (8)	170	3.0	1.7	0-7	.47
Narcissistic (9)	170	3.1	1.7	0-8	.47
Borderline (9)	170	3.1	1.8	0-8	.55
Antisocial (7)	170	1.7	1.5	0-7	.47
Avoidant (7)	170	2.8	2.0	0-7	.69
Dependent (8)	170	1.6	1.7	0-8	.67
Obsessive Compulsive (8)	170	3.9	1.5	1-7	.33
Negativistic (7)	170	2.5	1.7	0-7	.57
Depressive (7)	170	3.4	1.8	0-7	.63
<b>Total score (91)</b>	<b>169</b>	<b>32.8</b>	<b>11.7</b>	<b>8-63</b>	<b>.88</b>

**Note.** NEO subscale means are expressed as t scores.

Table 4

**Descriptive Statistics and Coefficient Alpha Values for Outcome Measures: The Grief Experience Questionnaire (GEQ) and the Grief Experience Inventory (GEI)**

Scale (# of items)	n	Mean	SD	Range	Alpha
<b>GEQ scales</b>					
Abandonment/Rejection (11)	169	16.7	7.3	11-53	.87
Stigmatization (10)	169	18.7	7.1	10-42	.85
Search for Explanation (7)	169	21.2	6.2	8-35	.74
Guilt (6)	169	15.3	5.4	6-30	.83
Somatic Reactions (4)	169	9.1	3.3	4-18	.76
Responsibility (5)	169	6.8	2.6	5-25	.74
<b>Self-Destructive</b>					
Orientation (5)	169	7.4	3.0	5-19	.75
Shame/Embarrassment (6)	169	12.9	4.3	6-25	.65
Total score (52)	169	104.6	25.2	60-217	.92
<b>GEI validity scales</b>					
Denial (11)	169	44.2	7.2	36-67	.45
Atypical Responses (28)	168	50.0	7.9	32-67	.39
Social Desirability (7)	167	45.3	9.8	23-68	.18
<b>GEI bereavement scales</b>					
Despair (19)	169	49.3	9.2	36-72	.86
Anger/Hostility (9)	169	51.3	10.1	34-71	.76
Guilt (6)	168	50.4	8.1	40-77	.45
Social Isolation (7)	169	49.1	9.6	36-78	.55
Loss of Control (9)	169	53.1	10.2	28-69	.68
Rumination (12)	167	51.0	11.7	31-79	.75
Depersonalization (8)	168	51.6	8.8	31-66	.64
Somatization (20)	168	47.9	9.0	34-78	.75
Death Anxiety (11)	169	57.2	8.4	32-74	.44

**Note.** GEI subscale means are expressed as t scores.

### Primary Analyses

**Bivariate correlations.** Bivariate correlations were computed between all relevant variables (73 variables in total). In an effort to facilitate ease of interpretation, several intercorrelation matrices have been produced. Table 5 (pp. 72-73) presents an intercorrelation matrix of the dependent variables assessed (GEI scales, GEQ scales). Table 6 (pp. 74-75) presents an intercorrelation matrix of the personality variables assessed (NEO and PDQ-4+ scales). Table 7 (pp. 76-78) presents an intercorrelation matrix of the 27 non-personality related variables (i.e., potential covariates).

As can be seen in Table 5, most of the GEI scales intercorrelate to a significant degree, as do most of the GEQ scales. On the GEI bereavement scales, only two correlations failed to reach significance at  $p < .05$ , these being between the social isolation scale and the loss of control ( $r = .14$ ) and death anxiety scales ( $r = .11$ ). Moderate correlations are reported between the GEQ scales, with all correlations significant at  $p < .05$  except for the nonsignificant correlation between somatic reactions and shame ( $r = .07$ ). Overlap between the GEI and GEQ scales is also substantial (similar to the results of McIntosh et al., 1992).

As can be seen in Table 6, high correlations are apparent between the neuroticism facet scales, and all facet scales correlate significantly with the neuroticism domain scale. Trait neuroticism correlated positively and significantly with most of the PDQ pathology scales, while extraversion, agreeableness, and conscientiousness generally correlated in a negative manner with the PDQ scales. Of the five trait factors, openness to experience demonstrated the least overlap with the PDQ scales. The pathology dimensions of borderline, avoidant, dependent, negativistic, and depressive appear to be most highly related to trait neuroticism. The cluster A personality dimensions (i.e., paranoid, schizoid, schizotypal) demonstrate generally lower associations with trait neuroticism.

Regarding Table 7, it is apparent that closeness to the deceased, quality of the relationship, and the evaluation of the impactfulness of the loss are all highly correlated. Also of note is the finding that mode of death (natural/unnatural) did not correlate ( $r = .00$ ) with the respondents belief that others could understand their grief.

Table 5

**Intercorrelation Matrix of Dependent Measures: Grief Experience Inventory (GEI)  
Scale Scores and Grief Experience Questionnaire (GEQ) Scale Scores**

Scales	GEI scales											
	1	2	3	4	5	6	7	8	9	10	11	12
<b>GEI validity scales</b>												
1. Denial												
2. Atypical Responses	.04											
3. Social Desirability	.04	.23										
<b>GEI bereavement scales</b>												
4. Despair	.04	.48	.06									
5. Anger/Hostility	.03	.34	.08	.56								
6. Guilt <sup>b</sup>	.15	.35	.08	.39	.37							
7. Social Isolation <sup>b</sup>	.05	.42	.02	.51	.34	.31						
8. Loss of Control	.14	.14	.15	.43	.36	.22	.14					
9. Rumination	.06	.31	.19	.49	.43	.43	.24	.42				
10. Depersonalization	.09	.19	.18	.66	.51	.40	.37	.44	.58			
11. Somatization <sup>b</sup>	.01	.53	.06	.70	.41	.36	.43	.40	.46	.45		
12. Death Anxiety	.32	.18	.03	.30	.20	.41	.11	.27	.25	.35	.18	
<b>GEQ scales</b>												
13. Abandonment <sup>c</sup>	.14	.32	.10	.34	.39	.39	.23	.27	.33	.25	.35	.09
14. Stigmatization <sup>b</sup>	.12	.43	.06	.43	.43	.32	.37	.24	.41	.34	.43	.18
15. Search for Explanation	.06	.27	.08	.46	.54	.27	.17	.47	.50	.55	.31	.23
16. Guilt	.05	.34	.07	.32	.30	.40	.27	.21	.30	.25	.32	.30
17. Somatic Reactions	.00	.30	.05	.56	.34	.22	.27	.44	.39	.44	.51	.26
18. Responsibility <sup>c</sup>	.02	.32	.00	.27	.24	.35	.23	.14	.32	.22	.28	.14
19. Self-Destructive <sup>c</sup>	.04	.46	.03	.68	.37	.31	.39	.38	.46	.46	.57	.20
20. Shame	.01	.26	.07	.24	.30	.24	.24	.07	.17	.14	.14	.12
21. Total <sup>b</sup>	.09	.50	.02	.61	.59	.47	.40	.44	.54	.52	.53	.29

(table continues)

Scales	GEQ scales									
	13	14	15	16	17	18	19	20	21	
<b>GEQ scales</b>										
13. Abandonment <sup>c</sup>										
14. Stigmatization <sup>b</sup>	.53									
15. Search	.31	.28								
16. Guilt	.36	.52	.19							
17. Somatic Reactions	.24	.32	.31	.29						
18. Responsibility <sup>c</sup>	.49	.47	.22	.72	.26					
19. Self-Destructive <sup>c</sup>	.40	.51	.43	.38	.50	.40				
20. Shame	.33	.39	.31	.30	.07	.31	.27			
21. Total <sup>b</sup>	.70	.78	.64	.66	.52	.65	.69	.57		

**Note.** Correlations of .15 or higher are significant at  $p < .05$ . Correlations of .25 or higher are significant at  $p < .01$ . Underlined numbers represent negative correlations.

<sup>b</sup>log transformation. <sup>c</sup>inverse transformation.

Table 6

**Intercorrelation Matrix of Independent Variables: NEO Domain and Facet Scale Scores and Personality Diagnostic Questionnaire-4+ (PDQ-4+) Scale Scores**

Scales	NEO scales										
	1	2	3	4	5	6	7	8	9	10	11
<b>NEO domain scales</b>											
1. Neuroticism						.68	.62	.87	.63	.34	.73
2. Extraversion	.37					.18	.31	.50	.40	.08	.25
3. Openness	.02	.15				.01	.01	.01	.10	.05	.12
4. Agreeableness	.29	.33	.17			.11	.59	.25	.17	.22	.22
5. Conscientiousness	.35	.12	.01	.22		.10	.31	.32	.33	.41	.40
<b>Neuroticism facet scales</b>											
6. Anxiety											
7. Angry Hostility						.38					
8. Depression						.57	.48				
9. Self-Consciousness						.43	.35	.59			
10. Impulsiveness						.20	.40	.31	.20		
11. Vulnerability						.53	.44	.62	.45	.36	
<b>PDQ-4+ scales</b>											
12. Paranoid	.12	.17	.20	.43	.05	.08	.24	.14	.05	.04	.08
13. Schizoid <sup>a</sup>	.22	.46	.07	.35	.01	.14	.22	.26	.08	.04	.13
14. Schizotypal	.24	.17	.02	.25	.05	.14	.18	.18	.12	.07	.12
15. Histrionic <sup>a</sup>	.25	.05	.12	.20	.18	.12	.24	.22	.20	.25	.24
16. Narcissistic	.24	.11	.11	.48	.23	.09	.34	.19	.23	.21	.17
17. Borderline <sup>a</sup>	.50	.37	.08	.39	.23	.31	.53	.54	.33	.27	.50
18. Antisocial <sup>a</sup>	.13	.01	.05	.40	.27	.04	.32	.08	.02	.30	.11
19. Avoidant	.56	.39	.14	.16	.24	.42	.28	.57	.64	.13	.38
20. Dependent <sup>b</sup>	.45	.13	.09	.07	.29	.29	.29	.43	.41	.27	.50
21. Obsessive-Compulsive	.26	.20	.06	.10	.12	.32	.23	.25	.23	.13	.14
22. Negativistic	.51	.29	.04	.41	.26	.37	.59	.42	.32	.29	.39
23. Depressive	.56	.50	.01	.23	.12	.44	.42	.68	.43	.15	.40
24. Total score	.60	.38	.04	.46	.29	.43	.56	.58	.49	.31	.49

(table continues)

Scales	PDQ-4+ scales											
	12	13	14	15	16	17	18	19	20	21	22	23
<b>PDQ-4+ scales</b>												
12. Paranoid												
13. Schizoid <sup>a</sup>	.29											
14. Schizotypal	.43	.37										
15. Histrionic <sup>a</sup>	.23	.10	.22									
16. Narcissistic	.43	.23	.31	.42								
17. Borderline <sup>a</sup>	.31	.31	.34	.37	.31							
18. Antisocial <sup>a</sup>	.33	.17	.24	.31	.44	.35						
19. Avoidant	.18	.10	.22	.20	.18	.40	.04					
20. Dependent <sup>b</sup>	.23	.05	.16	.44	.29	.40	.14	.48				
21. Obsessive-Compulsive	.05	.19	.16	.10	.10	.25	<u>.04</u>	.32	.16			
22. Negativistic	.38	.30	.32	.38	.42	.55	.43	.35	.43	.24		
23. Depressive	.12	.21	.23	.20	.14	.56	.09	.61	.36	.33	.40	
24. Total score	.55	.39	.55	.59	.61	.76	.48	.62	.62	.40	.76	.62

**Note.** Correlations of .15 or higher are significant at  $p < .05$ . Correlations of .25 or higher are significant at  $p < .01$ . Underlined numbers represent negative correlations.

<sup>a</sup>square root transformation. <sup>b</sup>log transformation.



**Table 7**  
**Intercorrelation Matrix of Potential Covariates**

	1	2	3	4	5	6	7	8	9	10
1. elapsed time since death										
2. age of resp. at time of death	<u>.10</u>									
3. length of relationship with deceased	<u>.13</u>	.39								
4. closeness to deceased (prior to death)	.14	.19	.12							
5. current level of closeness/ "attachment" to deceased <sup>d</sup>	.14	.13	.09	.55						
6. quality of relationship with deceased <sup>d</sup>	.16	.14	.07	.64	.58					
7. respondents' state of emotional well-being shortly before the death	.03	.08	<u>.19</u>	<u>.02</u>	<u>.12</u>	<u>.08</u>				
8. evaluation of the impactfulness of the death <sup>d</sup>	.21	.09	<u>.15</u>	.38	.50	.36	.07			
9. participant feeling that they could have done something to prevent the death <sup>b</sup>	.24	.03	<u>.09</u>	.13	.09	<u>.02</u>	.12	.19		
10. importance of spiritual beliefs <sup>a</sup>	<u>.11</u>	<u>.16</u>	<u>.10</u>	<u>.15</u>	<u>.15</u>	<u>.14</u>	<u>.09</u>	<u>.10</u>	<u>.09</u>	
11. total number of bereavement experiences <sup>b</sup>	.07	.14	<u>.01</u>	<u>.03</u>	.03	.00	<u>.03</u>	.01	<u>.02</u>	<u>.02</u>
12. current age of respondent	.06	.98	.37	.22	.14	.16	.09	.12	.06	<u>.18</u>
13. respondent years of education completed	.05	.43	.10	.14	.14	.10	.03	.04	.13	<u>.31</u>
14. age of deceased	<u>.13</u>	.04	.66	.02	.00	.06	<u>.22</u>	<u>.32</u>	<u>.08</u>	<u>.07</u>
15. sex of respondent	<u>.01</u>	.18	.04	.11	.18	.15	<u>.20</u>	.34	.01	<u>.16</u>
16. sex of deceased	.10	<u>.01</u>	.13	.03	.07	.06	<u>.05</u>	<u>.09</u>	.12	<u>.10</u>
17. advance warning of the death	<u>.02</u>	.05	<u>.27</u>	<u>.07</u>	<u>.10</u>	<u>.13</u>	.50	.22	.01	<u>.05</u>
18. anticipation that the death would occur	.15	<u>.02</u>	<u>.23</u>	<u>.06</u>	<u>.10</u>	<u>.08</u>	.46	.26	.13	<u>.11</u>
19. death viewed as preventable	.10	<u>.10</u>	.17	.07	.01	.12	<u>.27</u>	<u>.27</u>	<u>.25</u>	<u>.02</u>
20. blame somebody for the death	<u>.02</u>	.07	.12	<u>.15</u>	<u>.05</u>	<u>.03</u>	<u>.16</u>	<u>.25</u>	<u>.39</u>	<u>.04</u>
21. obtaining professional help	<u>.16</u>	<u>.24</u>	.12	<u>.14</u>	<u>.07</u>	<u>.10</u>	<u>.10</u>	<u>.23</u>	<u>.18</u>	.10
22. death - expected	.14	.01	<u>.31</u>	<u>.01</u>	<u>.09</u>	<u>.06</u>	.39	.25	.09	.01
23. death - unexpected	<u>.15</u>	<u>.07</u>	.35	.04	.07	.04	<u>.43</u>	<u>.25</u>	<u>.07</u>	.01
24. death - slow	.08	.10	<u>.18</u>	<u>.03</u>	<u>.07</u>	<u>.11</u>	.41	.14	.07	<u>.04</u>
25. death - sudden	.07	.01	.08	<u>.04</u>	.00	.06	<u>.29</u>	<u>.22</u>	<u>.10</u>	<u>.12</u>
26. mode of death (natural vs. unnatural)	<u>.02</u>	.01	<u>.56</u>	<u>.07</u>	<u>.09</u>	<u>.13</u>	.38	.24	.11	.12
27. respondent belief that others could understand their grief	.09	.11	.03	.25	.13	.10	<u>.04</u>	.22	.04	<u>.05</u>

(table continues)

	11	12	13	14	15	16	17	18	19	20
11. total number of bereavement experiences										
12. current age of respondent	.13									
13. respondent years of education completed	.01	.44								
14. age of deceased	.04	.02	.07							
15. sex of respondent	.03	.18	.01	.04						
16. sex of deceased	.02	.02	.16	.22	.01					
17. advance warning of the death	.03	.04	.01	.39	.01	.15				
18. anticipation that the death would occur	.03	.01	.09	.33	.02	.08	.52			
19. death viewed as preventable	.06	.07	.06	.34	.07	.25	.41	.28		
20. blame somebody for the death	.03	.06	.01	.26	.04	.04	.18	.17	.44	
21. obtaining professional help	.04	.26	.15	.18	.02	.02	.10	.06	.12	.14
22. death - expected	.01	.03	.05	.40	.00	.16	.63	.52	.33	.21
23. death - unexpected	.03	.09	.07	.42	.01	.12	.65	.46	.37	.15
24. death - slow	.03	.11	.10	.23	.04	.14	.47	.34	.23	.09
25. death - sudden	.03	.03	.18	.15	.09	.09	.25	.26	.18	.10
26. mode of death (natural vs. unnatural)	.04	.00	.03	.71	.01	.24	.53	.33	.47	.31
27. respondent belief that others could understand their grief	.00	.12	.10	.07	.16	.11	.04	.01	.17	.11

(table continues)

	21	22	23	24	25	26	27
21. obtaining professional help							
22. death - expected	<u>.13</u>						
23. death - unexpected	.09	<u>.78</u>					
24. death - slow	<u>.06</u>	.41	<u>.55</u>				
25. death - sudden	.10	<u>.34</u>	.24	<u>.32</u>			
26. mode of death (natural vs. unnatural)	<u>.15</u>	.49	<u>.53</u>	.37	<u>.23</u>		
27. respondent belief that others could understand their grief	<u>.18</u>	.06	<u>.02</u>	.06	.11	.00	

**Note.** Correlations of .15 or higher are significant at  $p < .05$ . Correlations of .25 or higher are significant at  $p < .01$ . Underlined numbers represent negative correlations. Correlations for reflected variables (<sup>d</sup>) are to be read as is (i.e., values given do not need their signs to be reversed).

<sup>a</sup>square root transformation. <sup>b</sup>log transformation. <sup>c</sup>reflect and square root transformation.

**Principal components analysis of grief scales.** Given that there was considerable overlap among the 18 grief scales, a principal components analysis was applied to reduce this set to a smaller number of independent components. Only those factors (i.e., components) with eigenvalues greater than 1.0 were retained; this produced an initial four-factor solution. However, the last factor had only two scales loading on it and was not interpretable (i.e., GEI Death Anxiety and GEI Guilt scales; these two scales also had low coefficient alpha values). Therefore, two and three factor solutions were forced, with the three-factor solution producing the most adequate and interpretable solution. Each of the 18 items (i.e., grief scales) loaded substantially on one of the three factors. The scales were assigned to factors based on the highest loadings (minimum acceptable loading of .45, indicating 20% overlapping variance). In the case where the secondary loading of a scale was within .05 of its highest loading, it was included on both components (Norman & Streiner, 1986). In addition, communalities ( $h^2$ ) were calculated for each scale, and reliability analyses (utilizing the standardized item alpha) were performed on each of the three factors.

The three-factor solution obtained from principal components analysis with varimax rotation accounted for 56.4% of the variance in the grief scales. The rotated factor matrix is presented in Table 8 (page 81).

Examining the factors, it can be seen that the first factor included 5 scales with loadings exceeding .62 and explained 20.8% of the variance. This factor appears to represent a preoccupied state of withdrawal into self (inwardly-focused presentation), including withdrawal from others, depressive-type reactions, and prominent somatic manifestations. This factor can be labeled as an “internalized distress reaction.”

The second factor included 6 scales with loadings exceeding .48 and explained 18.1% of the variance. These scales suggest a “private torment” and appear to represent a blending of grief reactions that have been shown to characterize grief after a suicide (i.e., beliefs of personal responsibility for the death, feelings of guilt, feelings of having been abandoned by the deceased, feeling stigmatized, ashamed and embarrassed). A preoccupation with ascribed responsibility (self onto self and other onto self) is indicated, as is a concern/sensitivity to the perception of self from the

vantage point of others (perceiving the negative judgements of others). Given that the GEQ was constructed to tap grief after suicide, it is appropriate that 5 of the GEQ scales load on this factor. This factor can be labeled as “stigmatized grief.”

The third factor, labeled “existential anxiety” included 6 scales with loadings exceeding .48 and explained 17.5% of the variance. The content of these scales appears to reflect a destabilizing effect secondary to the experience of unexpected events. A heightened awareness of one's vulnerability/mortality is apparent, as is difficulty in “containing” the experience. A need for meaning in response to shattered assumptions and a loss of innocence is also suggested. The label for this factor is borrowed from Worden (1991b), who stated that “existential anxiety is an expected correlate of increased personal death awareness” (p. 148).

Communality values are also presented. Communalities ( $h^2$ ) represent the proportion of variance in the item (i.e., scale) that can be explained by the factors. These values can range from 0 - 1, with 0 indicating that the common factors explain none of the variance of the variable and 1 indicating that they explain all of the variance (SPSS Inc., 1997a). Sample values ranged from .36 - .79, with most values near or above .50, indicating that the variables were, by and large, moderately-defined by the factor solution. Regarding internal consistency, standardized item alphas provide the alpha value that would be obtained if all of the scales were standardized to have a variance of 1, and was chosen for use as widely differing variances were apparent between the (transformed and untransformed) grief scales (SPSS Inc., 1997b). The reliability coefficients so calculated were satisfactory (ranging from .80 - .83), indicating that the newly formed factors are internally consistent.

Factor scores (which are estimates of the scores that each participant would have obtained on each of the factors had they been measured directly) were calculated based on the above solution. These scores were calculated using the regression approach to estimating factor scores (Tabachnick & Fidell, 1989), and were utilized as the dependent variable (i.e., grief components I, II, and III) in the subsequent multiple regression analyses computed.

Table 8

**Three-Factor Matrix After Varimax Rotation for the Scales of the Grief Experience Inventory (GEI) and the Grief Experience Questionnaire (GEQ)**

Grief scales	Grief components			$h^2$
	I	II	III	
GEI - Despair	<b>.77*</b>	.17	.40	.79
GEI - Somatization scale <sup>b</sup>	<b>.77*</b>	.19	.21	.68
GEI - Social Isolation <sup>b</sup>	<b>.63*</b>	.27	-.04	.47
GEQ - Self-Destructive Orientation <sup>c</sup>	<b>.68*</b>	.33	.24	.63
GEQ - Somatic Reactions	<b>.62*</b>	.07	.32	.50
GEQ - Responsibility <sup>c</sup>	.15	<b>.81*</b>	.07	.68
GEQ - Guilt	.14	<b>.77*</b>	.17	.64
GEQ - Stigmatization <sup>b</sup>	.42	<b>.65*</b>	.11	.62
GEQ - Abandonment/Rejection <sup>c</sup>	.28	<b>.62*</b>	.16	.49
GEQ - Shame/Embarrassment	.06	<b>.59*</b>	.11	.36
GEI - Guilt <sup>b</sup>	.10	<b>.48*</b>	<b>.50*</b>	.49
GEI - Death Anxiety	-.10	.18	<b>.68*</b>	.51
GEQ - Search for Explanation	.27	.14	<b>.68*</b>	.55
GEI - Depersonalization	<b>.49</b>	.09	<b>.64*</b>	.66
GEI - Loss of Control	.36	-.02	<b>.60*</b>	.50
GEI - Rumination	.38	.23	<b>.59*</b>	.54
GEI - Anger/Hostility	.41	.28	<b>.48*</b>	.48
Eigenvalue	3.54	3.08	2.97	
Percent of Variance	20.8	18.1	17.5	
Cronbach's (Standardized item) alpha	.83	.80	.81	

**Note.** Values equal to or larger than .45 are given in boldface type. \*Denotes that scale was placed on given component.  $h^2$  = communality values.

<sup>b</sup>log transformed. <sup>c</sup>inverse transformed.

### Examining the Data for Significant Covariates

In addition to the personality traits assessed, 27 other potentially important predictor variables were measured to allow for assessment as to whether they correlated significantly with outcome (grief response) variables, and as such warranted inclusion as "covariates" in the hierarchical regression analyses conducted. Analysis and selection of these potential predictors was conducted by correlating them with each of the three outcome variables. For a tabular presentation of all possible covariates that were assessed in this study, please refer back to Table 1 (p. 54 in the Measures section). Sample descriptive and frequency values for all of these variables were previously presented in either the "Participants" section or in the "Preliminary Analyses" section.

Bivariate correlations (and significance levels) were computed between each of the three grief components and (a) the 11 scales of the NEO, (b) the 12 PDQ scales, and (c) the 27 non-personality related variables. These data are presented in tabular form in Table 9 (pp. 84-85).

Pertaining to the selection of covariates, Cohen (1977) considered the "effect sizes" (defined as "the *degree* to which the phenomenon is present in the population," p. 9) of various correlation coefficients, and made the following recommendations. He argued that correlations of (at least) .10 ( $r^2 = .01$ ) are considered to represent a "small" yet meaningful effect size, correlation values of .30 ( $r^2 = .09$ ) as defining a "medium" effect size, and correlation values of .50 ( $r^2 = .25$ ) as indicative of a "large" effect size. In the course of deciding upon which variables to include as covariates in the regression analyses, the above information on effect sizes was considered in parallel with the suggestion of Cook and Campbell (1979) that for a variable to be entered as a covariate, it should correlate at least at .33 with the dependent variable. Based on the above, yet leaning more heavily on Cohen's (1977) work, the decision was made to include as covariates those variables that correlated at least .30 with the dependent variable, indicating a "medium" level of effect size.

With this criterion, the variables of (1) closeness to deceased prior to the death ( $r = .36$ ), (2) respondent obtaining professional help ( $r = .32$ ), and (3) respondent belief

that others could understand their grief ( $r = .30$ ) were included as covariates for grief component I. The only variable that correlated at the criterion level with grief component II was the respondent's belief that they could have personally prevented the death ( $r = .44$ ). Covariates for grief component III were (1) respondent evaluation of the impactfulness of the death ( $r = .51$ ), (2) sex of respondent ( $r = .43$ ), with females demonstrating higher scores on this grief dimension than male respondents, and (3) quality of the relationship with the deceased ( $r = .32$ ).

In addition to being significantly related to outcome variables, ideally covariates should not demonstrate high intercorrelations among themselves (Tabachnick & Fidell, 1989). Correlations among the covariates for grief component I were as follows: closeness to deceased correlated .25 ( $p = .001$ ) with respondent belief that others could understand their grief and  $-.14$  with respondent obtaining professional help, while the correlation between these latter variables was  $-.18$  ( $p = .02$ ). The covariates for grief component III showed moderate correlations, as follows: respondent evaluation of the impactfulness of the death correlated .34 ( $p < .001$ ) with sex of respondent (with females reporting higher "impact" than males) and .36 ( $p < .001$ ) with quality of the relationship. The correlation between these latter variables was .15 ( $p = .047$ ), with females demonstrating a trend toward a higher quality of relationship with the deceased.

Correlations between the covariates and the independent variables are presented in Table 10 (p. 86). Only 10 of the 168 correlations computed reached significance at the .01 level, indicating that the covariates chosen were largely uncorrelated with the IV's. As can be seen, respondent belief that others could understand their grief, participant belief that they could have prevented the death, and sex of respondent did not correlate significantly with any of the IV's, while the other four covariates demonstrated significant correlations with six of the IV's. Given the patterns of correlations between the covariates and (a) the three grief components, and (b) the independent variables, and the intercorrelations amongst the covariates, it appears that the covariates chosen for inclusion in the multiple regression analyses are appropriate.



Table 9

Correlations Between Grief Components (I, II, and III), IV's, and Potential Covariates

Variables	Grief components		
	I	II	III
<b>NEO scales:</b>			
Neuroticism Domain scale	.41***	.13	.13
Extraversion Domain scale	-.17*	-.05	.04
Openness Domain scale	.14	.11	-.08
Agreeableness Domain scale	-.18*	-.20*	.03
Conscientiousness Domain scale	-.06	-.08	.01
Anxiety facet scale	.23**	.13	.24**
Angry Hostility facet scale	.29***	.15*	.14
Depression facet scale	.39***	.14	.12
Self-Consciousness facet scale	.18*	.16*	.04
Impulsiveness facet scale	.05	.03	.05
Vulnerability facet scale	.19*	.05	.22**
<b>PDQ scales:</b>			
Paranoid	.04	.21**	.08
Schizoid <sup>a</sup>	.31***	.02	-.15
Schizotypal	.27***	.09	-.08
Histrionic <sup>a</sup>	.24**	.10	.03
Narcissistic	.11	.24**	-.04
Borderline <sup>a</sup>	.38***	.16*	.19*
Antisocial <sup>a</sup>	.13	.16*	-.11
Avoidant	.21**	.21**	.07
Dependent <sup>b</sup>	.22**	.17*	.17*
Obsessive Compulsive	.29***	.12	.26***
Negativistic (Passive Aggressive)	.29***	.17*	.17*
Depressive	.33***	.10	.13
PDQ total score	.38***	.29***	.13
<b>Potential covariates:</b>			
1. elapsed time since death	.02	.19*	.14
2. age of respondent at time of death	.17*	-.12	-.09
3. length of relationship with deceased	.09	-.05	-.18*
4. closeness to deceased (prior to death)	.36***	-.05	.25***
5. current level of closeness/"attachment" to deceased <sup>d</sup>	.25***	.08	.25***
6. quality of relationship with deceased <sup>d</sup>	.21**	-.21**	.32***
7. state of emotional well-being shortly before the death	-.04	.07	-.01
8. evaluation of the impactfulness of the death <sup>d</sup>	.22	.01	.51***
9. participant could have prevented the death <sup>b</sup>	.07	.44***	.15
10. importance of spiritual beliefs <sup>a</sup>	-.07	.05	.13
11. total number of bereavement experiences <sup>b</sup>	-.03	.02	-.02
12. current age of respondent	.19	-.10	-.07
13. respondent years of formal schooling	.01	-.10	-.07
14. age of deceased	-.01	-.03	-.27***

(table continues)

Variable	Grief components		
	I	II	III
15. sex of respondent <sup>e</sup>	.23**	.12	.43***
16. sex of deceased <sup>e</sup>	.01	.07	.03
17. advance warning of the death <sup>e</sup>	.04	.02	.19*
18. anticipation that death would occur when it did <sup>e</sup>	.03	.09	.20**
19. death viewed as preventable <sup>e</sup>	.04	.12	.11
20. blame somebody for the death <sup>e</sup>	.15	.14	.19*
21. obtaining professional help <sup>e</sup>	<b>.32***</b>	.04	.05
22. death - expected <sup>e</sup>	.02	.01	.19*
23. death - unexpected <sup>e</sup>	.03	.05	.20*
24. death - slow <sup>e</sup>	.01	.12	.01
25. death - sudden <sup>e</sup>	.02	.18*	.15
26. mode of death (natural vs. unnatural) <sup>e</sup>	.04	.06	.25***
27. belief that others could understand their grief <sup>e</sup>	<b>.30***</b>	.21**	.12
GEI Social Desirability Scale	.06	-.05	.13

**Note.** Values in boldface type indicate that the variable qualified as a covariate.

<sup>a</sup>square root transformation. <sup>b</sup>log transformation. <sup>c</sup>inverse transformation. <sup>d</sup>reflect and square root transformation. <sup>e</sup>given that these are point-biserial correlations, the sign is arbitrary and is thus not included.

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

Table 10

**Correlations Between Covariates and Independent Variables**

Independent Variables	Covariates						
	I <sup>a</sup>			II <sup>b</sup>	III <sup>c</sup>		sex
	close	help	under	prev <sup>e</sup>	qual <sup>f</sup>	imp <sup>f</sup>	
<b>NEO domain scales</b>							
1. Neuroticism	.12	.16	-.07	.16	.01	-.12	.15
2. Extraversion	.01	-.16	.05	-.04	.03	.11	-.15
3. Openness	-.01	.13	.02	.11	.02	.05	-.01
4. Agreeableness	-.03	-.22*	.19	-.03	.05	-.14	-.11
5. Conscientiousness	.01	-.06	.16	-.13	.06	.18	.02
<b>Neuroticism facet scales</b>							
6. Anxiety	.03	.12	.01	.13	.05	.20*	.04
7. Angry Hostility	.14	.29**	-.17	.16	.08	.22*	.18
8. Depression	.10	.16	-.03	.15	-.01	.13	.15
9. Self-Consciousness	.09	.05	-.11	-.01	.05	.06	.09
10. Impulsiveness	-.07	.22*	.05	.01	.04	.01	.08
11. Vulnerability	.05	.10	-.04	.18	-.05	.10	.06
<b>PDQ-4+ scales</b>							
12. Paranoid	-.05	-.02	-.11	.05	-.16	.02	-.05
13. Schizoid <sup>d</sup>	.08	.12	.02	.06	-.06	.04	-.11
14. Schizotypal	.02	.01	-.05	-.01	-.15	-.05	-.10
15. Histrionic <sup>d</sup>	.05	.05	.08	.10	-.03	.05	.05
16. Narcissistic	.01	-.03	-.16	-.03	-.11	-.04	-.13
17. Borderline <sup>d</sup>	.07	.19	-.14	.14	-.03	.17	.01
18. Antisocial <sup>d</sup>	-.19	.05	-.02	.03	-.20*	-.08	-.17
19. Avoidant	.01	.06	-.15	.04	-.05	.09	.13
20. Dependent <sup>f</sup>	.03	.07	-.09	.12	-.04	.09	.13
21. Obsessive-Comp.	.22*	.05	-.10	.02	.20*	.31**	.17
22. Negativistic	-.06	.19	-.16	.08	-.04	.08	.12
23. Depressive	.09	.19	-.09	.13	.06	.21*	.17
24. Total score	.05	.15	-.17	.12	-.05	.13	.03

**Note.** close = closeness to deceased. help = obtained professional help. under = belief that others could understand their grief. prev = participant belief they could have prevented the death. qual = quality of relationship with deceased. imp = impactfulness of the loss. sex = sex of respondent.

<sup>a</sup>grief component I. <sup>b</sup>grief component II. <sup>c</sup>grief component III. <sup>d</sup>square root transformation. <sup>e</sup>log transformation. <sup>f</sup>reflect and square root transformation (correlations for these reflected variables are to be read as presented above).

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

### **Hierarchical Multiple Regression Analyses**

Hierarchical multiple regression was employed to determine if the addition of information regarding personality variables improved prediction of grief symptomatology beyond that afforded by other non-personality related variables (i.e., significant covariates). As stated previously, the two primary hypotheses were as follows:

- (1) normal-range personality traits would be differentially predictive of grief reactions, and more specifically, that neuroticism (and its core facets) would prove to be the most important of the traits assessed in terms of affecting grief, and
- (2) participants with higher levels of self-reported personality “pathology” would report higher levels of grief. More specifically, higher levels of cluster B traits (i.e., Borderline, Histrionic, and Narcissistic) and cluster C traits (i.e., obsessive-compulsive, dependent, avoidant) should be associated with more difficult grieving. Cluster A traits (i.e., paranoid, schizoid, schizotypal) should demonstrate lower relationships to grief dimensions.

**Evaluation of assumptions.** Prior to performing the regression analyses, a series of steps were taken to ensure that assumptions required for regression techniques had not been violated (Tabachnick & Fidell, 1989). These are outlined in the sections that follow.

**Ratio of cases to independent variables.** The ratio of cases to IVs in regression analysis should be, at minimum, 5:1 (i.e., 5 cases per IV) (Norman & Streiner, 1986; Tabachnick & Fidell, 1989). In the 7 regressions run, a maximum of 12 IVs were entered (PDQ scales). As such, the number of cases measured in this study are well above recommended levels.

**Missing data.** The procedures for handling missing data were described previously in the Results section under the heading of “Preliminary Data Screening” (p. 60).

**Normality, linearity, and homoscedasticity of residuals.** As noted above (p. 61), variable transformations were performed for failures of normality as detected by initial examination of skewness and kurtosis values for all DVs, IVs, and covariates. Residuals (differences between obtained and predicted DV scores) scatterplots were

examined during each of the 7 regression runs as a further test of the assumptions of normality, linearity, and homoscedasticity (i.e., scatterplots of Studentized deleted residuals versus standardized predicted values). Failures of normality were not detected using this graphical method.

**Outliers.** Among continuous variables, univariate outliers are cases with large standardized scores (z scores  $\pm 3.0$ ). Descriptive statistics were utilized to search for such cases with respect to the DV and each IV. Multivariate outliers (i.e., cases that have an unusual pattern of scores) were sought using both statistical and graphical methods.

Statistically, the computation of Mahalanobis distance (a leverage measure) for each case was used to test for the presence of multivariate outliers. Mahalanobis distance is useful for identifying potential outliers among the IVs (SPSS Inc., 1997; Tabachnick & Fidell, 1989). A conservative estimate ( $p < .001$ ) for a case being an outlier is appropriate with Mahalanobis distance (Tabachnick & Fidell, 1989). With the use of a  $p < .001$  criterion, no multivariate outliers among the cases were identified in any of the regressions completed.

While Mahalanobis distance examines combinations of IVs, graphical methods (examining residuals plots) look at the combination of IVs in the context of the DV. Graphically, residuals scatterplots (of Studentized deleted residuals versus standardized predicted values) were examined to identify cases for which there was a poor fit between obtained and predicted DV scores, with extreme cases producing very large ( $> 3.0$ ) residuals. Residuals examined in this way are useful for identifying outliers in the solution (Tabachnick & Fidell, 1989), and where indicated, outliers identified in this manner are discussed in the regression runs (see below) in which they appear.

Finally, the computation of Cook's distance (an influence measure) was utilized as to identify cases that exert too much influence on the calculation of one or more coefficients (SPSS Inc., 1997b; Tabachnick & Fidell, 1989). Cook's distance is a measure of the change in regression coefficients produced by leaving out a case, with scores larger than 1.00 identifying cases that are suspected outliers (Tabachnick & Fidell, 1989). No cases were identified in any analysis with this value of Cook's

distance as the criterion.

**Multicollinearity and singularity.** Protection against multicollinearity (i.e., very highly correlated variables) and singularity (i.e., variables are perfectly correlated and one of the variables is a combination of one or more of the other variables) was provided by SPSS Regression in that squared multiple correlations (SMCs) were computed for the variables included in each regression run. The SMC is the squared multiple correlation of a variable where it serves as DV with the rest as IVs in multiple correlation (i.e., the proportion of variance in the variable [DV] that is predictable from the best linear combination of IVs). SPSS converts the SMC values for each variable to a “tolerance” statistic. Tolerance is the proportion of variance of a potential IV that is not explained by IVs already in the equation. Values of tolerance range from 0 - 1, and when the value is close to 0, the variable is almost a linear combination of the other IVs. Multicollinearity is avoided by maintaining reasonable tolerance levels for entry (SPSS default value is 0.0001), and thereby disallowing entry of variables that add virtually nothing to predictability. All variables thus entered the final regression equations without violating the default value for tolerance.

**Evaluating the “importance” of predictor variables.** The squared semipartial correlation ( $sr^2$ ) expresses the unique contribution of an IV to the total variance of the DV, and is interpreted as the amount of variance added to  $R^2$  by each IV at its point of entry into the equation (all  $sr^2$  values sum to  $R^2$ ). According to Tabachnick and Fidell (1989), the  $sr^2$  is a very useful measure of the “importance” of an IV, and as such will be utilized in the interpretation of upcoming regression analyses. A drawback to the use of  $sr^2$  is that the apparent importance of an IV is very likely to depend on its point of entry into the equation, a state of affairs that does not exist when (1) the  $t$  value (useful predictors have  $t$  values greater than  $\pm 2.0$ ; SPSS Inc., 1997a) or (2) the standardized regression coefficient of an IV ( $\beta$ ) is utilized to assess its importance. Given that (a) multiple valid indicators exist upon which to base interpretations as to the relative importance of the significant predictors (SPSS Inc., 1997a; Tabachnick & Fidell, 1989), and that (b) differing results regarding the relative importance of predictor variables on these indicators were obtained in the hierarchical regressions run, all

regression models demonstrating significant predictors were re-run using a non-hierarchical approach. The advantage of this approach is that all variables (i.e., covariates and personality variables) entered have an equal chance of demonstrating the most significant association with the given outcome variable. In the following section, the seven hierarchical regressions will be discussed, with interpretations regarding the relative “importance” of the covariates versus the personality variables based upon the second run through of the regression models using a stepwise approach.

### Hierarchical Multiple Regression Models

A total of 7 hierarchical multiple regressions were run. As it was specified that variables entered in two blocks (covariates in block 1, independent variables in block 2), all models were hierarchical over blocks, but statistical (a.k.a. stepwise) within blocks.

#### Grief Component I: Internalized Distress Reaction

Regression model 1: Grief component I with NEO personality traits. No univariate or multivariate outliers were detected, nor were any suppressor variables. For this model,  $n = 163$ .

Table 11 (page 94) displays the zero-order and partial correlations between variables entered and grief component I, the unstandardized regression coefficients (B), the standardized regression coefficients ( $\beta$ ), T values for each variable, the semipartial correlations ( $sr^2$ ), and the full-model  $R$ ,  $R^2$  and adjusted  $R^2$ . After step 1, with the three covariates in the equation,  $R^2 = .23$ ,  $F(3, 159) = 15.53$ ,  $p < .0005$ . After inclusion of the neuroticism scale in step 2,  $R^2 = .34$ ,  $F(4, 158) = 20.37$ ,  $p < .0005$ . Addition of neuroticism did reliably improve  $R^2$ . Stepwise regression results for the same set of variables indicated that the variable that contributed most to the prediction of internalized distress was trait neuroticism (see stepwise regression results in Appendix H, p. 145).

Regression model 2: Grief component I with Neuroticism facet scales. Given that neuroticism emerged as the most significant predictor of grief component I, this analysis was run to determine which particular facet(s) of neuroticism were more associated with this grief component.

No univariate or multivariate outliers were detected, nor were any suppressor variables. For this model,  $n = 163$ . Table 12 (page 95) displays the zero-order and partial correlations between variables entered and grief component I, the unstandardized regression coefficients (B), the standardized regression coefficients ( $\beta$ ), T values for each variable, the semipartial correlations ( $sr^2$ ), and the full-model  $R$ ,  $R^2$  and adjusted  $R^2$ . After step 1, with the three covariates in the equation,  $R^2 = .23$ ,  $F(3, 159) = 15.53$ ,  $p < .0005$ . After inclusion of the depression facet scale in step 2,  $R^2 = .33$ ,  $F(4, 158) = 19.55$ ,  $p < .0005$ . Trait depression did reliably improve  $R^2$ , and thus appears to be the facet of neuroticism that is most important in predicting this grief component.

Regression model 3: Grief component I with PDO personality styles. No univariate outliers were detected, and while Mahalanobis distance values did not indicate the presence of multivariate outliers among the cases (in terms of the combination of independent variables), examination of residual plots during an initial regression run revealed that one case had a (studentized deleted) residual  $> 3.0$  (indicating an outlier in the solution). This case was deleted, and the analysis rerun ( $n = 161$ ). No outliers were subsequently found, nor were any suppressor variables.

Table 13 (page 96) displays the zero-order and partial correlations between variables entered and grief component I, the unstandardized regression coefficients (B), the standardized regression coefficients ( $\beta$ ), T values for each variable, the semipartial correlations ( $sr^2$ ), and the full-model  $R$ ,  $R^2$  and adjusted  $R^2$ . After step 1, with the three covariates in the equation,  $R^2 = .23$ ,  $F(3, 158) = 15.79$ ,  $p < .0005$ . After inclusion of the borderline and schizoid scales in step 2,  $R^2 = .37$ ,  $F(6, 155) = 15.17$ ,  $p = .0016$ . Addition of these personality scales did reliably improve  $R^2$ . Stepwise regression results for the same set of variables indicated that the borderline personality style was the most important predictor of internalized distress (see stepwise regression results in Appendix I, p. 146).

#### Grief Component II: Stigmatized Grief

Regression model 4: Grief component II with NEO personality traits. No univariate or multivariate outliers were found, nor were any suppressor variables. For this model,



$n = 163$ .

Table 14 (page 97) displays the zero-order and partial correlations between variables entered and grief component II, the unstandardized regression coefficients (B), the standardized regression coefficients ( $\beta$ ), T values for each variable, the semipartial correlations ( $s_r^2$ ), and the full-model  $R$ ,  $R^2$  and adjusted  $R^2$ . After step 1, with the one covariate in the equation,  $R^2 = .19$ ,  $F(1, 161) = 38.1$ ,  $p < .0005$ . After inclusion of the agreeableness scale in step 2,  $R^2 = .23$ ,  $F(2, 160) = 23.7$ ,  $p < .0005$ . Addition of agreeableness did reliably improve  $R^2$ . Stepwise regression results for the same set of variables indicated that the respondent's belief that personal action (on their part) could have prevented the death was the most important predictor of stigmatized grief (see stepwise regression results in Appendix J, p. 147).

Regression model 5: Grief component II with PDQ personality styles. No univariate outliers were detected, and while Mahalanobis distance values did not indicate the presence of multivariate outliers among the cases (in terms of the combination of independent variables), examination of residual plots during an initial regression run revealed that one case had a (studentized deleted) residual  $> 3.0$  (indicating an outlier in the solution). This case was deleted, and the analysis rerun ( $n = 161$ ). No outliers were subsequently found, nor were any suppressor variables.

Table 15 (page 98) displays the zero-order and partial correlations between variables entered and grief component II, the unstandardized regression coefficients (B), the standardized regression coefficients ( $\beta$ ), T values for each variable, the semipartial correlations ( $s_r^2$ ), and the full-model  $R$ ,  $R^2$  and adjusted  $R^2$ . After step 1, with one covariate in the equation,  $R^2 = .20$ ,  $F(1, 159) = 40.0$ ,  $p < .0005$ . After inclusion of the narcissistic scale in step 2,  $R^2 = .26$ ,  $F(2, 158) = 28.3$ ,  $p < .0005$ . Addition of the narcissistic personality scale did reliably improve  $R^2$ . In addition, although not meeting the a priori significance criterion of  $p < .01$ , a trend was evident in that addition of the avoidant scale resulted in an .02 increase in  $R^2$  ( $p = .029$ ). As above, stepwise regression results for the same set of variables indicated that the respondent's belief that they could have prevented the death was the most important predictor of stigmatized grief (see stepwise regression results in Appendix K, p. 148).

### Grief Component III: Existential Anxiety

**Regression model 6: Grief component III with NEO personality traits.** No univariate or multivariate outliers were found, nor were any suppressor variables. For this model,  $n = 163$ .

Table 16 (page 99) displays the zero-order and partial correlations between variables entered and grief component III, the unstandardized regression coefficients (B), the standardized regression coefficients ( $\beta$ ), T values for each variable, the semipartial correlations ( $s_r^2$ ), and the full-model  $R$ ,  $R^2$  and adjusted  $R^2$ . After step 1, with two covariates in the equation,  $R^2 = .33$ ,  $F(2, 160) = 39.2$ ,  $p < .0005$ . Personality traits did not meet criterion for entry into the model. Stepwise regression results for the same set of variables indicated that impactfulness of the death was the most important predictor of existential anxiety (see stepwise regression results in Appendix L, p. 149).

**Regression model 7: Grief component III with PDQ personality styles.** No univariate or multivariate outliers were found, nor were any suppressor variables. For this model,  $n = 162$ .

Table 17 (page 100) displays the zero-order and partial correlations between variables entered and grief component III, the unstandardized regression coefficients (B), the standardized regression coefficients ( $\beta$ ), T values for each variable, the semipartial correlations ( $s_r^2$ ), and the full-model  $R$ ,  $R^2$  and adjusted  $R^2$ . After step 1, with two covariates in the equation,  $R^2 = .33$ ,  $F(2, 159) = 38.8$ ,  $p < .0005$ .

Personality styles did not meet criterion for entry ( $p < .01$ ) into the model. However, a trend was evident in that addition of the borderline scale resulted in a .02 increase in  $R^2$  ( $p = .028$ ), while addition of the schizoid scale resulted in an additional increase of .03 in  $R^2$  ( $p = .011$ ). Stepwise regression results for the same set of variables indicated that impactfulness of the death was the most important predictor of existential anxiety (see stepwise regression results in Appendix M, p. 150).

Table 11

**Model 1: Summary of Hierarchical Regression Predicting “Internalized Distress Reactions” from Normal-Range Personality Traits (n = 163)**

Variables	r	Partial r	B	$\beta$	T	$sr^2 (\Delta R^2)$
<b>Step 1</b>						
Closeness	.36***	.27	.26	.24	3.5	.13***
Professional help	-.32***	-.22	-.53	-.19	-2.8	.07***
Others understand grief	.30***	.21	.45	.18	2.7	.03*
<b>Step 2</b>						
Neuroticism	.41***	.38	.03	.34	5.2	.11***
Extraversion	-.17*	.01	---	---	0.1	---
Openness	.14*	.14	---	---	1.7	---
Agreeableness	-.18*	.00	---	---	0.0	---
Conscientiousness	-.06	.12	---	---	1.5	---
						R = .58***
						R <sup>2</sup> = .34
						Adjusted R <sup>2</sup> = .32

**Note.** Correlations (r) are zero-order correlations. Partial correlation (Partial r) is the correlation of each IV with the DV (grief component I) after removing the linear effect of variables already in the equation. Dashes indicate that data are not available, as values in these columns are calculated only for those variables that entered the final solution. The full-model adjusted  $R^2 = .32$ ,  $F(4, 158) = 20.4$ ,  $p < .0005$ .

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

Table 12

**Model 2: Summary of Hierarchical Regression Predicting “Internalized Distress Reactions” from Neuroticism Facet Scales (n = 163)**

Variables	r	Partial r	B	$\beta$	T	$\Delta R^2$
<b>Step 1</b>						
Closeness	.36***	.27	.27	.24	3.5	.13***
Professional help	-.32***	-.22	-.52	-.19	-2.8	.06***
Others understand grief	.30***	.21	.47	.19	2.7	.03*
<b>Step 2</b>						
<b>Neuroticism Facets</b>						
Depression	.39***	.37	.03	.33	5.0	.11***
Anxiety	.23*	---	---	---	0.2	---
Angry Hostility	.29***	---	---	---	0.2	---
Self-Consciousness	.17*	---	---	---	-1.2	---
Impulsiveness	.05	---	---	---	-0.9	---
Vulnerability	.19**	---	---	---	-1.2	---
					R = .58***	
					R <sup>2</sup> = .34	
					Adjusted R <sup>2</sup> = .32	

**Note.** Correlations (r) are zero-order correlations. Partial correlation (Partial r) is the correlation of each IV with the DV (grief component I) after removing the linear effect of variables already in the equation. Dashes indicate that data are not available, as values in these columns are calculated only for those variables that entered the final solution. The full-model adjusted  $R^2 = .32$ ,  $F(4, 158) = 19.55$ ,  $p < .0005$ .

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

Table 13

**Model 3: Summary of Hierarchical Regression Predicting “Internalized Distress Reactions” from Personality Styles (n = 161)**

Variables	r	Partial r	B	$\beta$	T	$sr^2 (\Delta R^2)$
<b>Step 1</b>						
Closeness	.36***	.27	.26	.23	3.5	.13***
Professional help	-.29***	-.16	-.38	-.13	-2.1	.07***
Others understand grief	.32***	.22	.46	.19	2.8	.03*
<b>Step 2</b>						
Borderline <sup>a</sup>	.42***	.32	.66	.29	4.2	.09***
Schizoid <sup>a</sup>	.34***	.25	.55	.21	3.2	.04**
Histrionic <sup>a</sup>	.24***	.16	---	---	2.0	---
Paranoid	.06	-.09	---	---	-1.2	---
Schizotypal	.28***	.14	---	---	1.7	---
Narcissistic	.13	-.05	---	---	-0.6	---
Antisocial <sup>a</sup>	.15	.08	---	---	1.1	---
Avoidant	.23**	.08	---	---	1.0	---
Dependent <sup>b</sup>	.22**	.10	---	---	1.2	---
Obsessive-Compulsive	.29***	.13	---	---	1.7	---
Negativistic	.30***	.06	---	---	0.8	---
Depressive	.35***	.14	---	---	1.7	---
<b>R = .61***</b>						
<b>R<sup>2</sup> = .37</b>						
<b>Adjusted R<sup>2</sup> = .35</b>						

**Note.** Correlations (r) are zero-order correlations. Partial correlation (Partial r) is the correlation of each IV with the DV (grief component I) after removing the linear effect of variables already in the equation. Dashes indicate that data are not available, as values in these columns are calculated only for those variables that entered the final solution. The full-model adjusted  $R^2 = .35$ ,  $F(6,155) = 15.17$ ,  $p = .0016$ .

<sup>a</sup>square root transformation. <sup>b</sup>log transformation.

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

Table 14

**Model 4: Summary of Hierarchical Regression Predicting "Stigmatized Grief" from Normal-Range Personality Traits (n = 163)**

Variables	r	Partial r	B	$\beta$	T	sr <sup>2</sup> ( $\Delta R^2$ )
<b>Step 1</b>						
prevented death <sup>a</sup>	.44***	.44	1.2	.44	6.3	.19***
<b>Step 2</b>						
Agreeableness	-.20**	-.21	-0.2	-.19	2.8	.04**
Neuroticism	.13	.01	---	---	0.1	---
Extraversion	-.05	.03	---	---	0.4	---
Openness	.10	.11	---	---	1.4	---
Conscientiousness	-.08	.02	---	---	0.2	---
						R = .48***
						R <sup>2</sup> = .23
						Adjusted R <sup>2</sup> = .22

**Note.** Correlations (r) are zero-order correlations. Partial correlation (Partial r) is the correlation of each IV with the DV (grief component II) after removing the linear effect of variables already in the equation. Dashes indicate that data are not available, as values in these columns are calculated only for those variables that entered the final solution. The full-model adjusted R<sup>2</sup> = .22, F (2, 160) = 23.7, p < .0005.

<sup>a</sup>log transformation.

\*p < .05. \*\*p < .01. \*\*\*p < .001.

Table 15

**Model 5: Summary of Hierarchical Regression Predicting "Stigmatized Grief" from Personality Styles (n = 161)**

Variables	r	Partial r	B	$\beta$	T	$sr^2(\Delta R^2)$
<b>Step 1</b>						
prevented death <sup>b</sup>	.45	.48	.16	.47	6.6	.20***
<b>Step 2</b>						
Narcissistic	.22**	.28	.13	.23	3.7	.06***
Avoidant	.22**	.15	.08	.15	2.2	.02*
Paranoid	.22**	.11	---	---	1.5	---
Schizoid <sup>a</sup>	.01	-.11	---	---	-1.4	---
Schizotypal	.08	.00	---	---	-0.1	---
Histrionic <sup>a</sup>	.06	-.11	---	---	-1.4	---
Borderline <sup>a</sup>	.16*	.03	---	---	0.4	---
Antisocial <sup>a</sup>	.13*	.02	---	---	0.3	---
Dependent <sup>b</sup>	.18*	.08	---	---	1.0	---
Obsessive-Compulsive	.14	.09	---	---	1.1	---
Negativistic	.16*	.02	---	---	0.4	---
Depressive	.08	.00	---	---	-0.1	---
					<b>R</b>	<b>= .51***</b>
					<b>R<sup>2</sup></b>	<b>= .26</b>
					<b>Adjusted R<sup>2</sup></b>	<b>= .25</b>

**Note.** Correlations (r) are zero-order correlations. Partial correlation (Partial r) is the correlation of each IV with the DV (grief component II) after removing the linear effect of variables already in the equation. Dashes indicate that data are not available, as values in these columns are calculated only for those variables that entered the final solution. The full-model adjusted  $R^2 = .25$ ,  $F(2, 158) = 28.3$ ,  $p < .0005$ .

<sup>a</sup>square root transformation. <sup>b</sup>log transformation.

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

Table 16

**Model 6: Summary of Hierarchical Regression Predicting “Existential Anxiety” from Normal-Range Personality Traits (n = 163)**

Variables	r	Partial r	B	$\beta$	T	sr <sup>2</sup> ( $\Delta R^2$ )
<b>Step 1</b>						
impactfulness of death <sup>a</sup>	.51	.43	.88	.41	6.0	.26***
sex of respondent	.43	.31	.61	.29	4.2	.07***
quality of relationship <sup>a</sup>	.32	.14	---	---	1.8	---
<b>Step 2</b>						
Neuroticism	.13	.04	---	---	0.6	---
Extraversion	.04	.14	---	---	1.7	---
Openness	-.08	-.12	---	---	-1.5	---
Agreeableness	.03	.12	---	---	1.5	---
Conscientiousness	.01	-.11	---	---	-1.4	---
						R = .57***
						R <sup>2</sup> = .33
						Adjusted R <sup>2</sup> = .32

**Note.** Correlations (r) are zero-order correlations. Partial correlation (Partial r) is the correlation of each IV with the DV (grief component III) after removing the linear effect of variables already in the equation. Dashes indicate that data are not available, as values in these columns are calculated only for those variables that entered the final solution. The full-model adjusted R<sup>2</sup> = .32, F (2, 160) = 39.2, p < .0005.

<sup>a</sup>reflect and square root transformation (correlations for these reflected variables are to be read as presented above).

\*p < .05. \*\*p < .01. \*\*\*p < .001.



Table 17

**Model 7: Summary of Hierarchical Regression Predicting “Existential Anxiety” from Personality Styles (n = 162)**

Variables	r	Partial r	B	$\beta$	T	sr <sup>2</sup> ( $\Delta R^2$ )
<b>Step 1</b>						
impactfulness of death <sup>c</sup>	.51	.42	.85	.39	-5.9	.26***
sex of respondent	.42	.31	.58	.27	4.0	.07***
quality of relationship <sup>c</sup>	.32	.14	---	---	1.8	---
<b>Step 2</b>						
Borderline <sup>a</sup>	.19**	.22	.44	.19	2.9	.02*
Schizoid <sup>a</sup>	-.14	-.20	-.44	-.17	-2.6	.03*
Paranoid	.08	.15	---	---	1.9	---
Schizotypal	-.08	-.02	---	---	-0.2	---
Histrionic <sup>a</sup>	.03	-.05	---	---	-0.6	---
Narcissistic	-.03	.04	---	---	0.5	---
Antisocial <sup>a</sup>	-.11	-.06	---	---	-0.8	---
Avoidant	.07	-.08	---	---	-1.0	---
Dependent <sup>b</sup>	.17*	.07	---	---	1.0	---
Obsessive-Compulsive	.26***	.10	---	---	1.3	---
Negativistic	.18**	.12	---	---	1.5	---
Depressive	.13	-.09	---	---	-1.2	---
						R = .57***
						R <sup>2</sup> = .33
						Adjusted R <sup>2</sup> = .32

**Note.** Correlations (r) are zero-order correlations. Partial correlation (Partial r) is the correlation of each IV with the DV (grief component III) after removing the linear effect of variables already in the equation. Dashes indicate that data are not available, as values in these columns are calculated only for those variables that entered the final solution. The full-model adjusted  $R^2 = .33$ ,  $F(2, 159) = 38.8$ ,  $p < .0005$ .

<sup>a</sup>square root transformation. <sup>b</sup>log transformation. <sup>c</sup>reflect and square root transformation (correlations for these reflected variables are to be read as presented above).

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

## CHAPTER IV DISCUSSION

### Summary of Findings

The results of the present investigation have provided evidence supporting the hypotheses that both normal-range personality traits and more potentially problematic personality styles are associated with specific dimensions of grief following the loss of a significant other. Among normal-range traits, high neuroticism and low agreeableness emerged as significant predictors of grief dimensions, while borderline, schizoid, and narcissistic styles also demonstrated significant associations with grief responses. In addition, several other categories of factors (i.e., relational, participant-related demographic, the perceived preventability of the death, the “impact” of the loss, the use of counseling services, and the “understanding” of others) emerged as significant predictors of the grief responses assessed.

Although the relations between personality traits/styles and grief reactions were originally presented as separate hypotheses, the discussion that follows will attempt to integrate these aspects of functioning with each of the components of grief assessed. As such, traits and styles will be discussed in relation to each of the three grief reaction factors, as will each of the significant covariates.

### Grief Component I: “Internalized Distress”

As indicated above, trait neuroticism and borderline and schizoid features were predictive of the grief response of “internalized distress,” which included components of despair, somatic manifestations, and social isolation. Within the neuroticism domain, it was found that the facet of trait depression was particularly important in terms of accounting for the link between neuroticism and internalized distress, with higher levels of trait depression relating to tendencies to experience depressive-type affects (including sadness, hopelessness and loneliness).

High neuroticism has been shown to exert a strong “direct effect” on psychological distress (Ormel & Wohlfarth, 1991). For example, persons high in this trait have been shown to manifest the general tendency to experience many varieties of negative affectivity (Costa & McCrae, 1992; McLennan & Bates, 1993; Watson & Clark,

1984), including a propensity toward major depression (Kendler, Neale, Kessler, Heath, & Eaves, 1993). In addition, neuroticism is a significant predictor of lower self-rated psychological well-being (Emery, Huppert, & Schein, 1996). Neuroticism has also been related to somatic complaints (Costa & McCrae, 1987) and documented as an important mediator in the relation between stress and somatic illness (Ranchor & Sanderman, 1991). Longitudinal research has demonstrated that higher levels of neuroticism are related to the more frequent experience of (objectively- and subjectively-defined) adverse life events (Fergusson & Horwood, 1987; Headey & Wearing, 1989; Magnus, Diener, Fujita, & Pavot, 1993; Whittington & Huppert, 1998). Persons with high neuroticism also tend to experience higher levels of psychological distress across time and situations (Ormel & Wohlfarth, 1991), and have been shown to demonstrate a greater *vulnerability* to psychological distress following adverse life events (Horwood & Fergusson, 1986; McLennan & Bates, 1993). Further, Ormel and Wohlfarth (1991) documented that high neuroticism exerted a more powerful effect on psychological distress levels than did environmental factors. Similarly, the results of Magnus et al. (1993) suggest that life events (e.g., bereavements) cannot be viewed as a source of influence on persons independent of their personality functioning. In a related manner, persons scoring high in neuroticism tend to react to a large variety of events in a negative way (Magnus et al., 1993), using generally passive and ineffective coping mechanisms across situations (Watson & Hubbard, 1996). Such mechanisms have been demonstrated to include the use of emotion-focused coping (Saklofske & Kelly, 1995), maladaptive cognitive distortions (Parkes, 1986), as well as hostile reactions, escapist fantasies, self-blame, withdrawal, wishful thinking, and indecisiveness (McCrae & Costa, 1986).

These findings suggest that high neuroticism functions to affect individual lives on at least two levels. First, as global personality traits have been shown to be stable entities (Costa & McCrae, 1980, 1991; Funder, 1991; McCrae & Costa, 1984, 1990; McCrae & John, 1992) that influence behavior (Allport, 1937, 1966; Brody, 1994; Costa & McCrae, 1991; Eysenck & Eysenck, 1985; Funder, 1991, 1994; McAdams, 1994), they can be seen to influence both the types of events (good and bad) that are

experienced in one's life, and the *types of reactions* one manifests to these events. In other words, high trait neuroticism will operate to influence the ways in which persons react to the ongoing day-to-day events of their lives. Since high neuroticism is associated with less effective coping in general, it stands to reason that such persons will be vulnerable to distress (e.g., behavioral, psychological, somatic) on a more or less continuing basis. Neuroticism thus functions to make ongoing successful adaptation to the demands of daily life more difficult. Second, given that individuals higher in neuroticism are limited in terms of their ability to cope successfully with "normal" life situations, the experience of major stressors (e.g., a major bereavement) may significantly overload their coping resources, likely resulting in diminished functioning. As more highly neurotic persons tend to demonstrate a general susceptibility toward psychological distress across situations (i.e., distress proneness), it is not surprising that this would predispose them toward greater psychological upset following the loss of a significant other.

The finding that neuroticism was related to grief responses in the present study lends validation to theoretical notions that postulate such an association (Bowlby, 1980; Lindemann, 1944; Parkes, 1985, 1990; Stroebe & Stroebe, 1987; Worden, 1991a). For example, Lindemann (1944) has described what could be interpreted as trait depression as a risk factor for poorer grief outcome. Further, the present findings support prior empirical results (Campbell et al., 1991; Hunfeld et al., 1997a, 1997b; Janssen et al., 1997; Meuser et al., 1995; Middleton et al., 1997; Prigerson et al., 1997; Sanders, 1979; Sheldon et al., 1981; Vachon et al., 1982a) demonstrating associations between neuroticism and grief responses. The present findings also converge to support the work of others who have demonstrated associations between hardiness and grief responses (Campbell et al., 1991; Dispenza, 1992), in that "hardy" people fall on the opposite pole of a "vulnerability" (to stress) dimension (McCrae & Costa, 1990). Trait vulnerability is a core facet of neuroticism. As alluded to above, persons who report higher levels of vulnerability tend to feel unable to cope with stress, becoming dependent, hopeless, or panicked when facing emergency situations, while low scorers perceive themselves as capable of handling themselves in difficult situations (Costa &

McCrae, 1992).

It is also of note that this general finding (i.e., the link between neuroticism and grief reactions) has emerged in studies in which multiple assessment tools (tapping personality and grief phenomenology) were used and which involved samples varying in terms of bereavement-related characteristics (e.g., age of bereaved person, type of loss, etc.).

The typical characteristics of the borderline personality style assist in explaining the results showing an association between borderline features and some aspects of internalized distress. One important characteristic of persons with borderline features is that they typically manifest “a pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation” (DSM-IV, 1994, p. 654). In other words, they have both ambivalent cognitions and emotions toward the important others in their lives. Further, such persons are very sensitive to (perceived) rejection and to the loss of interpersonal supports, have intense fears of abandonment, and are “intolerant” of being alone (Sperry, 1995). Intense anger and difficulty controlling their anger as well as engagement in various forms of self-injurious behavior are also core symptoms of this style (DSM-IV, 1994). Such features of their personality functioning can be seen to contribute to their sense of internalized distress (including despair and self-destructive orientation) following the quite real loss of an important relationship through death.

The finding that borderline features were related to specific grief responses in the present study lends support to the work of various authors who propose such an association (Bowlby, 1980; Parkes, 1985, 1990; Rando, 1993; Raphael, 1983; Raphael & Middleton, 1990; Stroebe & Stroebe, 1987; Worden, 1991a). Specifically, Bowlby (1980) noted that persons who tend to establish affectional relationships characterized by ambivalence would have a predisposition toward difficult mourning. Similarly, according to Rando (1993), anger or ambivalence in relationships with the deceased could serve as complicating factors for the development of complicated mourning. Further, these findings are consistent with the results of some previous research demonstrating associations between the borderline features of ambivalence and/or anger

with grief responses (Cleiren, 1993; Parkes, 1975; Parkes & Weiss, 1983). Among conjugally-bereaved spouses for example, the presence of ambivalent feelings toward the lost partner is associated with greater psychological distress and poorer perceived health (Bonanno, Notarius, Gunzerath, Keltner, & Horowitz, 1998), and contributes to the development of pathological grief syndromes (Parkes & Weiss, 1983).

In addition, the commonly accepted features of the schizoid personality style shed light on the present results showing a link between schizoid features and the social isolation component of the internalized distress grief response cluster. That is, individuals with schizoid traits tend to have little need for companionship and are most comfortable alone. They also tend to be “self-contained,” that is, they do not require interactions with others in order to live their lives according to their desires (Sperry, 1995). It is thus not surprising that individuals with schizoid features tend to respond to loss in a manner that is similar to how they live on a daily basis, that is, in a socially isolated fashion. However, what is less clear is whether their grief response involves the experience of internalized “distress” or perturbation similar to those with neurotic or borderline features. Clearly, much further work remains to be done to further elucidate the relation between schizoid traits and grief-related phenomenon.

The other predictor variables (i.e., statistical covariates) that were revealed to have a significant association with the internalized distress grief response were closeness to the deceased, respondent obtaining professional help, and the respondent’s belief that others could or could not understand their grief. The link between closeness to the deceased and grief reactions has received considerable attention in the literature. Bugen (1976) considered the closeness of the relationship to be one of two “prime predictors” of grief intensity and duration (the other essential dimension being the bereaved person’s perception of the degree of preventability of the death). Similarly, Worden (1991a) noted that “it is almost axiomatic that the intensity of grief is determined by the intensity of love. The grief reaction will often increase in severity proportionate to the intensity of the love relationship” (p. 32). Empirical studies have also documented associations between relational closeness and aspects of the grief response (Bailey, Kral, & Dunham, in press; Balk, 1996; Cleiren, 1993; Zisook et al., 1987). It is also

known that many persons seek professional and/or group support after sustaining a loss, and many excellent books have been published outlining important aspects of working with such persons (e.g., Dersheimer, 1990; Rando, 1993; Worden, 1991a). The present findings suggest that seeking professional help is associated with the experience of a cluster of internalized distress responses that have been viewed as characterizing neurotic persons. In addition, it is understandable that respondents who believed that others could not understand their grief would manifest symptoms of grief associated with despair, somatic ills, and social isolation, and further that such persons are more likely to visit a professional for supportive counseling.

### Grief Component II: "Stigmatized Grief"

The results of the present study revealed an association between low levels of trait agreeableness and high levels of narcissistic tendencies and a form of response to loss termed "stigmatized grief," which is characterized by excessive feelings of responsibility for the death, and an over-concern about the perception of self by others manifest in self-denigrating cognition (including the experiences of stigmatization, shame, guilt, and abandonment/rejection).

Costa and McCrae (1992) argue that trait agreeableness is most centrally a dimension of interpersonal tendencies, with persons scoring on the low end of this dimension referred to as "antagonistic." While the agreeable person manifests social interest (Compton, 1998) by being fundamentally altruistic, sympathetic to others and eager to help, and believing that others will be equally helpful in return, the disagreeable or antagonistic person is egocentric, skeptical of others intentions, competitive rather than cooperative, rude, and manipulative (Costa & McCrae, 1992; Costa, McCrae, & Dembroski, 1989). When viewed in light of the fact that the grief responses that characterize "stigmatized grief" are characterized by strained interpersonal relations, it is understandable that disagreeable persons may experience such. Unfortunately, little research has yet examined relations between agreeableness and the type of self-denigrating cognition described above. One recent investigation documented a positive correlation between agreeableness and shame (Einstein & Lanning, 1998), however, these researchers noted that shame was also predictable from

neuroticism. These findings highlight the importance of future researchers considering the constellation of traits that may be related to shame and guilt. Nor has prior work directly examined the relation between low trait agreeableness and grief experiences more generally. However, the commonalities that exist across antagonistic and narcissistic personality traits can help to shed some light on the association found herein. In this regard, low agreeableness and narcissistic traits correlated significantly ( $r = .48$ ) in the present study. Similarly, low levels of agreeableness have been previously associated with narcissistic personality traits (Rhodewalt & Morf, 1995; Widiger, Trull, Clarkin, Sanderson, & Costa, 1994) and narcissistic personality disorder (Corbitt, 1994; Costa & McCrae, 1990). As low agreeableness and narcissism share features, an examination of features of narcissism can inform our understanding of the link between these personality variables and “stigmatized grief.”

Traits associated with narcissism include a need for excessive admiration, a grandiose sense of self-importance, and interpersonal difficulties (DSM-IV, 1994). Narcissism has also been associated with deficits in self-esteem or self-cohesion, which may manifest in feelings of shame, humiliation, and hypersensitivity to criticism (Miller, 1992). The “very fragile” self-esteem of such persons may result in a (hyper) sensitivity to the evaluations of others and a preoccupation with how favorably they are regarded by others (DSM-IV, 1994). It may be that one form of negative perception of self (i.e., stigmatized grief) is based on how one believes that one is being viewed by others. Seen in this light, it appears that higher levels of narcissism function as a vulnerability factor that may predispose toward negative self-perception following a bereavement experience. Consistent with this possibility, previous work has documented a “vulnerability-sensitivity” component to narcissism, which is associated with sensitivity to perceived slights, concern with one’s own adequacy, and a heightened vulnerability to life’s traumas (Wink, 1991).

Research has also documented that narcissistic persons are dependent on others as a source of self-esteem support (Rhodewalt & Morf, 1995). Narcissism serves to regulate self-esteem through the admiration that narcissistic persons need and receive from others. This admiration reinforces their sense of uniqueness/importance, which in turn



enhances self-esteem (Raskin, Novacek, & Hogan, 1991a). Further, although the grandiosity of narcissists protects them from self-doubt and negative affects, when their grandiose self-images/self-theories are not reinforced through positive (for them) social exchanges, their sense of self-esteem can give way to self-doubt (Raskin, Novacek, & Hogan, 1991b). Self-doubt in the present investigation appears to have manifested as denigrating cognition turned toward the self. Clearly, admiration from others is not likely to be received after a significant loss is experienced in a given network of persons. It is well known that many people experience difficulty interacting with recently bereaved individuals (e.g., not knowing what to say, acting differently toward them, perhaps avoiding them, etc.), which might also feed into the perception that one (i.e., a person with narcissistic tendencies) is being slighted or looked upon differently.

An interesting perspective was noted by Raphael and Middleton (1990), who suggested that narcissistic individuals might experience little "grief" because their "objects" have little meaning and can be replaced or done without. In support of this assertion, the present results indicated that more highly narcissistic individuals experienced little in the way of painful affect (e.g., depression, anxiety) or existential grief following the loss. Instead, these persons appeared to be preoccupied with how the death itself could affect others' perceptions of them. Also consistent with the reasoning of these authors, data from the present investigation revealed that a substantial percentage (62%) of those with higher levels of narcissism (i.e., upper 25% of distribution) reported a relatively low level of closeness to the deceased. The present findings are also in line with prior research demonstrating that in older males, narcissism can actually be protective against the experience of painful affect following loss (Goodman, Black, & Rubinstein, 1996).

Although the data gathered in this study did not permit the diagnosis of personality disorders, the above noted finding appears to resonate with Worden (1991a), who noted that "persons diagnosed with certain personality disorders may have a difficult time handling a loss. This is especially true of those classified with...narcissistic personality disorders" (p. 33). Some psychoanalytic writers have also spoken to the association between narcissistic character structures/diagnosable personality disorder and aspects of

pathological mourning (Gorkin, 1984; Kavaler-Adler, 1994). It appears that the present findings add some empirical support to the literature relating narcissism to aspects of post-loss functioning.

The only significant covariate to be revealed in association with stigmatized grief was the respondent's belief that they could have personally prevented the death. This finding supports Bugen's (1976) contention that one's belief about the preventability of a given death would have a significant influence on one's grief response. As noted above, persons with narcissistic traits may tend to hold such a belief (e.g., "I could/should have done something to prevent the death") as a function of their exaggerated sense of self-importance and omnipotence. Given that holding this belief may be predictive of certain variants of grief, it would seem important to assess for this and related beliefs in persons after a self-defined significant loss.

### Grief Component III: "Existential Anxiety"

As outlined earlier, no personality traits or styles were found to be significantly related to the "existential anxiety" grief reaction, which included characteristics such as anxiety about death, feeling a loss of control, and rumination including a need to find an acceptable explanation for the death. However, the predictor variables of impactfulness of death (i.e., higher ratings of impactfulness) and sex of respondent (i.e., being female) were found to be related to this specific grief reaction, with death impactfulness exerting a much greater degree of influence than sex of respondent.

Regarding the impactfulness of the death, it seems consistent with logic that losses that are perceived as representing something akin to a disaster in one's life may trigger intense responses associated with attempts to regain a sense of control and equilibrium. The loss of an important figure stirs within most persons uncomfortable thoughts and feelings relating to the possibility of one's own death (Yalom, 1980). Such anxiety about the possibility of one's own death is typically met with cognitive activities (such as those that comprise this grief reaction as noted above) that function to quell these uncomfortable affects. It also appears likely that one's perception of the impactfulness of a death could very well be influenced in the first place by the tendency to view loss in catastrophic terms. In speaking of teenagers who find themselves confronted with loss

through death, Oltjenbruns (1996) noted that such persons “may be overwhelmed by the sense that the world has let them down, that it is no longer predictable. Their personal fable has been severely challenged. These adolescents are called on to face their own mortality and realize that they, too, are vulnerable to death” (p. 201).

Although the present findings suggest that this specific grief reaction is not related to the personality traits or styles assessed, it seems to be experienced by persons who are (a) at a developmental level that may encourage such a response, and who also (b) appear to be prone to viewing loss experiences as catastrophic and who may then feel a resulting loss of control.

In the present study, females reported higher levels of existential anxiety and rated their loss experiences as being more “impactful” than did males. Consistent with these results, previous research has documented that females reported experiencing a higher degree of grief following loss (Meshot & Leitner, 1996) and more distress regarding the possibility of loss/transition events (Sieber, 1990) than did males. Other research has also shown that older adolescent females reported higher levels of worry associated with the threat of nuclear war than did late adolescent males (Hamilton, Van Mouwerik, Oetting, & Beauvais, 1988), and that their worry about nuclear war was associated with death-related ruminations. However, given that females are generally more emotionally expressive (Kring & Gordon, 1998) and more confident in terms of expressing negative affects such as fear and sadness (Blier & Blier-Wilson, 1989), it remains a possibility that their relatively greater comfort in reporting on certain of their affective experiences may mediate the relationship between gender and response to loss.

### **Additional Findings**

**The multidimensionality of grief responses.** Results of the principal components analysis of the scales of the GEI and GEQ revealed that three grief components were sufficient to capture a sizable portion of the variance in the original 18 scales. To the knowledge of the author, such a joint principal components analysis has not yet appeared in the published literature. An advantage to the use of components derived through factor analytic means is that one attains an empirical summary of the relations

among the original scales (Tabachnick & Fidell, 1989). In other words, the relations among apparently discrete reactions can be revealed. In the present study, three such groups (i.e., components) of correlated reactions were derived (as opposed to the original number of 18 "scales"), which was beneficial in terms of eliminating redundancy in the data and thus allowing for fewer regression analyses to be run. Further, the grief components revealed herein are consistent with commonly accepted responses to loss, in that internalized distress (Cowles & Rodgers, 1991; Lindemann, 1944), stigmatized reactions (Bailey et al., in press; McIntosh & Kelly, 1992; Worden, 1991b), and existential anxiety have been previously associated with loss experiences in the grief literature. Regarding the latter reaction, the present findings converge with those of Sklar and Hartley (1990) who found that "fear for one's own mortality" (p. 108) was a notable characteristic of grief in a sample of 35 bereaved students (age range of 18 to 45) who had lost close friends to death during the previous five years. Yalom (1980), speaking from an existential position, also commented on this type of reaction when he stated that a bereaved person has "not only suffered an 'object loss' but has encountered the loss of himself or herself as well. Beneath the grief for the loss of another lies the message, 'If your mother (father, child, friend, spouse) dies, then you will die, too'" (p. 56).

Other investigators have also demonstrated the multidimensional nature of grief responses with factor analytic techniques. For example, Vargas et al. (1989) found four factors in their factor analytic investigation, these being (a) depressive symptoms, (b) attempts directed at preservation of the lost object, (c) suicidal ideation, and (d) decedent-directed anger. Shuchter and Zisook (1993) identified six "relatively independent dimensions of grief" (p. 26) in a longitudinal study of a large number of bereaved spouses. The dimensions were (a) emotional and cognitive responses, (b) coping with emotional pain, (c) the continuing relationship with the dead spouse, (d) changes in functioning, (e) changes in relationships, and (f) changes in identity. It appears that the dimensions of grief identified in the present study relate more to symptomatic manifestations of grief, and do not reflect some of the important dimensions identified by these authors (e.g., the continuing relationship with the

deceased, changes in identity, etc.). This result is understandable in light of the fact that the items that compose the grief inventories utilized herein are predominantly concerned with symptomatic difficulties in various realms of functioning after a loss.

In addition to the principal components discussed above, the findings of the present study also underscore the multi-dimensional nature of determinants of response to loss in that (a) personality variables, (b) relational characteristics, and (c) behaviors (e.g., help-seeking) and (d) beliefs (e.g., death as preventable) of the respondent were all significantly related to specific grief responses. This finding corroborates a widely espoused view in the grief literature that grief after loss is associated with many classes of determining factors (Rando, 1984, 1993; Worden, 1991a).

It is also interesting that others who have utilized the procedure of multiple regression to identify predictors of grief have reported  $R^2$  values that closely approximate those found in the present study (which ranged from .22 to .35). For example, Janssen et al. (1997) performed a hierarchical multiple regression that resulted in 35.2 % of the variance in grief intensity being predicted. Vachon et al. (1982b) found that a combination of 10 variables was able to account for 43 % of the variance in "high distress" in a sample of widows 2 years post-loss. Cleiren (1993) reported mean adjusted  $R^2$  values of .48 (for loss-reactions), .38 (health problems), and .07 (social dysfunction) at four-months post-loss across various kinship groups. These values again underline the multiplicity of factors that combine in complex ways to co-determine one's grief responses, and speaks to the difficulty in measuring most (or even some) of the possible relevant predictors in any given study. The prediction of grief responses in a given case is indeed a complex enterprise.

#### Grief in Adolescents/Young Adults

Since roughly one-quarter of the losses for participants in the present study were of friends, it was of interest to examine the literature regarding the effect of losing a friend in late-adolescence and young adulthood. Unfortunately, there has been a paucity of empirical attention on the effect of a friend's death during adolescence (Balk, 1991; Oltjenbruns, 1996). Based on a thorough review of the literature, Fleming and Balmer (1996) stated that "there is a marked lack of knowledge and research into how

adolescents react to...loss experiences, such as the death of a friend" (p. 152). In describing the plight of young adults who have lost a friend, Sklar and Hartley (1990) noted that "there is a large, hidden, silently grieving population of what we call 'survivor-friends'" (p. 104). Death of a friend may be even more salient than other types of death (e.g., losses of blood relatives) during this time of life (Sklar & Hartley, 1990). One reason for this is that peer relationships and friendship networks are critically important to adolescents (Oltjenbruns, 1996), and for many adolescents, "the death of a close friend may dissolve a relationship that is as close or closer than some family bonds" (p. 214). While noting that the loss of a friend at any age is a significant life event, McNeil, Silliman, and Swihart (1991) stated that the death of a friend during adolescence "can be especially profound, due to the fragility of the youthful ego and the intense relationships adolescents have with their friends" (p. 133). In young adults, friends are highly valued as persons with whom to discuss problems and for their opinions on current issues (Wilks, 1986), and the quality of peer relations has been associated with self-esteem (Walker & Greene, 1986). However, youth typically have a high need for acceptance, and as such may engage in potentially harmful peer relations (Connor, 1994). In addition, youthful friendships may create vulnerability to loss through dependency and other features (e.g., inequality in the relationship) sometimes characteristic of friendships among persons in this age-group.

There are also some empirical data to suggest that the grief reactions of persons in their late-adolescence are similar across deaths of close friends and close family members (Lurie, 1993; as cited in Oltjenbruns, 1996). The experience of facing loss during adolescence/young adulthood is evocatively described by 17 young recently-bereaved persons (Gravelle & Haskins, 1989), with wide-ranging negative affects apparent, including themes of depression, pain, anger, guilt, and a sense of losing one's mind or going crazy. The fact of one's own mortality is also forced upon those who experience a significant loss during this period (Gordon, 1986; Oltjenbruns, 1996). Clearly, the impact of the loss of a significant person during these important developmental years can have profound effects. When the loss of a close friend occurs during the late- or post-adolescent period (as in this study), one may suggest that the

impact will be significant through the college-years, as these years are a time in life wherein identity development continues and where persons attempt to deal with challenges relating to establishing intimacy in interpersonal relationships.

Unfortunately, the response of young adults to the death of a grandparent (the most frequent category of deceased persons in the present study) has likewise garnered little empirical attention. This state of affairs appears curious given the long-standing ties that would have been established with grandparents and the fact that grandparents have likely often played important roles throughout the developing lives of young adults. The young adults in the present investigation have acknowledged that the loss of their grandparents had an "impact" comparable to that of other losses. As such, the neglect of friend- and grandparent-loss in college-age students represents an understudied area in the literature, and one that clearly warrants future study.

One further issue of interest relating to the relatively young age of the present sample is the manner and degree to which prior experiences with loss contribute to the grief and mourning of a newly experienced bereavement. The present results indicated no association between the number of past losses and grief reactions (similar to the results of Cherney & Verhey, 1996), and recent work utilizing the statistical technique of path analysis has shown that past experience with death (number of prior losses) demonstrated inconsistent associations with grief across male and female subsamples of homicidally-bereaved persons (Sprang & McNeil, 1995). However, Shanfield (1987) posited that prior experience with loss can be a predictor of good outcome in that "learning about one's response to [prior] loss protects one later in other bereavement experiences" (p. 105). In addition, Osterweis et al. (1984) stated that:

It is generally held that bereavement reactions are more intense and have more enduring consequences for younger people, particularly for children but also for adolescents and young adults. Older individuals appear to experience fewer, less intense consequences, perhaps because experiencing the death of someone close, family, or friends is common after the age of 60. Another possibility is that older individuals already have passed through the period of highest risk for psychiatric problems, such as alcoholism, depression, and anxiety disorders. (pp. 35-36)

Perhaps it is the case that the number of past loss experiences may be less important than the nature of those losses and the lessons learned (or not) from those deaths. In

any case, past human-loss experience is an interesting variable that warrants future investigation regarding its effect upon both grief reactions and the activities of mourning.

### **Theoretical Implications**

On a theoretical level, the present findings are quite consistent with prevailing views in the grief literature that posit or document associations between bereaved persons' personality functioning and response to bereavement (e.g., Alarcon, 1984; Bowlby, 1980; Campbell et al., 1991; Jacobsen, 1986; Meuser et al., 1995; Middleton et al., 1997; Parkes, 1972; Rando, 1984, 1991, 1993; Sanders, 1979, 1988, 1989; Sheldon et al., 1981; Vachon et al., 1982; Worden, 1991a). Based upon the extant literature in the areas of grief and personality reviewed earlier, it is reasonable to argue that personality characteristics will invariably shape one's response to loss. In other words, examining response to loss without taking into account personality characteristics likely results in an incomplete understanding of the complex processes involved in grief and mourning.

A general model of grief based on the present findings that is consistent with the grief literature would suggest that after a loss event occurs, several classes of moderator variables (i.e., covariates in the present study, normal-range personality traits, and trait personality problems [Axis II]) combine in complex ways and are associated with differential patterns of grief responses. The present results are also consistent with the notion that "grief is being viewed increasingly as a complex and evolving process, requiring the use of a multidimensional model [to account for its manifestations]" (Middleton et al., 1993).

### **Applied Implications**

Regarding applied implications, the results of the present study suggest that persons presenting for assistance after a bereavement (to community mental health centers, outpatient mental health clinics, self-help support groups, etc.) should ideally undergo some form of personality assessment at intake (Rando, 1993). Baseline personality assessment would help to assess for the possible contributions of enduring personality styles to the grief that given bereaved persons might also be seeking help to ameliorate.



The finding that personality traits contributed to the prediction of grief responses even *after* other variables were accounted for suggests that the time and effort required to garner additional information about personality traits and functioning will have important implications for treatment planning and service provision. For instance, one may find (contrary to surface appearance) that a person presenting for help after a loss may have behavioral functioning that is negatively impacted by a long-standing personality disorder. Knowing this information, one's case conceptualization and treatment planning would be quite different than in the case where a personality disorder was not a contributing factor to the experience of distress or functional impairment after a loss. In the more mild case where a diagnosable personality disorder does not exist, it will still be the case that knowledge about normal-range trait standing will contribute to the formulation of an effective treatment plan. Knowing that a person, is, for example, quite high on neuroticism, treatment may be focused on the underlying neurotic tendencies in order to assist with transition through the grief process. With regards to the assessment process, Rando (1993) specifically noted that:

if the assessment is restricted to loss-related areas, it will be impossible to determine how much of what is presented stems from a grief or mourning reaction and how much represents the individual's premorbid personality and functioning. Without the baseline data necessary to differentiate, to a reasonable level of certainty, grief and mourning from premorbid character, the caregiver's conclusions will be questionable. (p. 253)

Further, in the case where group formats (therapy or self-help/mutual support) are utilized with bereaved persons, the grief counselors/therapists who run these groups might give some consideration to excluding those persons who manifest a personality disorder. These persons could be referred to more intensive treatment formats that would likely have a better chance of effecting positive change in these persons (Sperry, 1995). In addition, the presence of severely personality disordered individuals in the context of a grief support group could have deleterious consequences on the other members, and as well on the ability of others in the group to benefit from the shared experience of participating in such a group. Another consideration might be to try to assemble groups such that there are some similarities in terms of the personality

traits/dynamics of group members.

Unfortunately, from a practical viewpoint the above suggestions may not be feasible in many cases. Personality assessment may require materials (e.g., questionnaires) or expertise (e.g., interpreting the findings) not available to all who work with bereaved persons. In addition, the cost and time spent conducting such assessments may be prohibitive, especially for mental health professionals who work under the dictates of a managed care model. In any case, to the extent that the provision of optimal care/service to bereaved persons is one's goal, then some thought should be given to ways to integrate personality assessment into the ongoing flow of service provision.

#### Limitations of the Present Study

Considering that the design of the present study was correlational in nature, causation cannot be inferred from these data (Tabachnick & Fidell, 1989). In other words, while personality traits and styles demonstrated differential associations with grief responses, it is theoretically possible that the demonstrated relationship between personality traits and grief could be influenced by other, unmeasured variables. The methodology of the present study also taps into concerns that have been expressed in the bereavement literature, for example, that studies that are conducted in a retrospective fashion tend to rely exclusively on recollections of past experience and tend to lack control groups of non-bereaved persons (Parkes, 1990). The fact that grief experiences and variables relating to one's own past (including one's past experience with the deceased) were obtained retrospectively in the present study opens the possibility that these ratings may have been subject to some degree of bias or distortion (e.g., minimization of experienced aspects of grief that may not be remembered, exaggeration of reported effects, etc.). In future research it would be advantageous to collect more "objective" (e.g., collateral, professional) views of the person's grief symptoms, in order to evaluate the degree to which these match self-report data. Further, the lack of a non-bereaved control group also leaves open a question concerning the extent to which the dependent variables assessed herein are present in persons who have not been recently bereaved (e.g., as features of personality pattern in general).

In terms of generalizability issues, the characteristics of the present sample need to be taken into account in terms of how far the present results can be generalized. The present sample was composed of primarily young, single, Caucasian persons who were engaged in the process of undertaking a college-education. The extent to which the present findings relating personality variables to grief reactions would apply to persons in other age groups/developmental categories, to persons in other racial categories, or to young persons in the same age group who do not attend college, is uncertain. Cautious generalization is clearly in order. In addition, a wide range of loss-related characteristics and death circumstances were collapsed across. With respect to the type of relationship between these bereaved participants and the deceased, the fact that various kinship relationships were included (e.g., friends and various kinship relationships) is of concern given empirical evidence suggesting that different kinship ties are associated with different grief responses (Cleiren, 1993). The association between kinship and grief reactions was not explored in the present study. The fact that most of the deceased persons were non-familial suggests that these results may not extend to closer family relations. Further, the mixing of deaths from different modes (i.e., natural, accident, suicide, and homicide) was likely problematic in that prior empirical evidence has demonstrated that mode of death is associated with differential response to loss (Bailey et al., in press; Barrett & Scott, 1990; Farberow, Gallagher-Thompson, Gilewski, & Thompson, 1992). For example, the present data demonstrated that there was an association between unnatural (as opposed to natural) deaths and the grief reaction of existential anxiety. However, the small numbers of persons who were suicidally and homicidally bereaved precluded analysis of the possible associations between specific modes of death, personality variables, and the various grief responses.

From a statistical point of view, the fit for the variables that were significant in this study will quite likely not be as good in other independent data sets. That is, the multiple correlations demonstrated in the multiple regression analyses were derived to fit the present data. It is also the case that regression models are sensitive to the variables included in them (Tabachnick & Fidell, 1989), and as such, the models generated herein should be considered in that light. Further, as with any attempt to

identify significant contributors of grief, the present results are incomplete in that although a large selection of variables thought to influence grief were included, the entire range of potential variables that could have been measured and included is obviously much larger.

A few limitations are also associated with the use of the Five-Factor Model of personality in general and with the global traits that are tapped therein. First, Westin (1996) has pointed out that trait observations (derived through the NEO Personality Inventory) reflect only the conscious self-concept of persons, and that traits provide no insight into personality processes. Second, the use of broad-band personality attributes (i.e., global traits such as neuroticism and agreeableness) in describing persons allows for others to be known only at a surface level, at the level of a "stranger" (McAdams, 1994). Inevitably, as we come to "know" the individuals in our lives, trait understandings are deepened as we learn more about the unique history, strivings, goals, etc. of the person. Third, it must be kept in mind that personality traits are still "in formation" in persons until around the age of 30 (Costa & McCrae, 1991, 1992; McCrae & Costa, 1990). As such, trait correlates with external criteria in younger samples (such as the present one) may be more inconsistent over time than in older groups of subjects. This also suggests that the hypotheses tested in the present study should be investigated among older persons to see whether the relations between traits and grief remain in persons with more entrenched trait structures.

#### Measurement Issues and Associated Research Implications

In terms of measurement issues, shared-method variance (all self-report data) in the present study may in fact have promoted higher correlations between personality characteristics and aspects of grief. A test of this possibility in future research could involve data gathering that does not rely solely on one particular method (i.e., self-report). Clinician ratings of recently bereaved persons functioning across various domains can be accomplished through the use of instruments designed for such purpose (e.g., the Grief and Mourning Status Interview and Inventory [GAMSII], a structured interview developed by Rando, 1993).

In addition, the PDQ-4+ is clearly not the best of measures for tapping personality

pathology. A possible explanation for the low to moderate level of magnitude of the multiple correlation values found between the PDQ-4+ scales and the grief factors is that the internal reliability values for the PDQ scales were unacceptably low in all cases. Given such substantial measurement error, attenuated correlations with other variables are to be expected (Schmitt, 1996). Another possible explanation reflects sampling issues (i.e., minimal variance). Investigators of clinical populations (e.g., Fossati et al., 1998) have documented greater variability in PDQ scales compared to the values of the college student sample utilized herein and values documented for other non-clinical populations (Johnson & Bornstein, 1992). The restricted range of scores in the present sample may also have served to attenuate the relationship between these styles and grief responses. As such, replication and extension of the present study's methodology with well-defined clinical populations would be a reasonable direction for future research.

Another useful approach would be to use measures that provide diagnostic information that are not rendered in self-report format regarding personality disorder characteristics. The use of clinical ratings of Axis II pathology (as these are typically seen as evidencing a higher level of validity than self-report data in the diagnosis of Axis II pathology) may be a most useful manner of gathering such data. In addition, the recent development of a semi-structured interview designed to tap the major dimensions of the Five-Factor model of personality (the Structured Interview for the Five-Factor model of Personality [SIFFM], Trull & Widiger, 1997; Trull et al., 1998) may also be utilized to advantage in this regard.

### Future Directions

From a research point of view, the results of the present study suggest that it is important to consistently measure personality variables as well as other situational and contextual features that frame the loss experience if one is seeking to comprehensively understand the confluence of factors that may impact on the grief reactions of bereaved individuals. Following from a point made above, the multidimensional assessment of grief in future studies is clearly warranted (Shuchter & Zisook, 1987, 1993; Vargas et al., 1989). In addition, with recent advances in methodological and statistical

capabilities come opportunities to pursue knowledge through different means. For example, Sprang and McNeil (1995) recently utilized path analysis to demonstrate a model to account for variables that influenced grief after a homicide. Efforts such as this are valuable and may move the field of bereavement studies toward heightened levels of sophistication.

While the present study added information on variables that are associated with grief reactions in a young-adult sample, various other design aspects could bring additional useful knowledge to bear on the contribution of personality (and other) variables on the nature and process of grief. For example, community sampling could allow for a higher degree of generalizability of findings. Longitudinal/prospective assessments also have the potential to extend the present base of knowledge (for good examples of such works, see Farberow et al., 1992; Parkes, 1970; Zisook & Shuchter, 1986). Longitudinal work can be especially useful for shedding light on questions such as “how long is it ‘normal’ to grieve,” and “what is ‘normal’ grief” (if there is such a thing). In addition, combining self-report with interview/observational data may be a means to add valuable information. Most ideally, one would want to conduct repeated multidimensional assessments (utilizing several varieties of assessment techniques) on well-defined cohorts (defined by age of bereaved person, type of loss, etc.) of recently bereaved persons prospectively, at set time points following a significant loss, to more accurately gather information on the nature and course of grief experiences (see Byrne & Raphael, 1994).

As touched on above, to extend the scope of the present investigation to include variance attributable to different modes of death, one could study personality traits in samples with adequate numbers of persons bereaved through the various modes of death. This method would allow one to assess the relative contribution of each of these major classes of “risk factor” variables and their respective association(s) with grief responses. Alternatively, one could study the impact of personality variables on samples of those bereaved through specific modes of death.

Another potentially interesting future direction would be to assess not just the painful symptomatology of grief, but to inquire simultaneously about the more positive

(probably longer-term) aspects of having undergone a loss experience. This perspective was captured nicely by Shuchter and Zisook (1993) when they stated that “although painful and sometimes destructive, grief often promotes growth and development and may bring out hidden resources and strengths” (p. 43). This may be especially worth study in younger persons whose development may be ultimately promoted by an encounter with successfully resolved loss (Oltjenbruns, 1991, 1996).

Future investigators could work to extend and clarify the findings of the present study by moving toward a more complex model that considers additional aspects of personality functioning (see Westin, 1996) as these relate to grief and mourning. In this regard, McAdams (1992) noted that “trait constructs are an indispensable aspect of any legitimate understanding of personality. But there is more to a comprehensive understanding of human personality than traits” (p. 337). Or, in the words of Brody (1994), “we cannot understand individual lives by reference to traits alone, and we cannot understand individual lives without reference to traits” (p. 119). Traits have been clearly shown to be important in the lives of persons (Allport, 1966; Costa & McCrae, 1991; Funder, 1991; McAdams, 1994; McCrae & Costa, 1990). Clearly, personality influences on both “normal” and more complicated courses of grief and mourning represent a fruitful avenue for future investigation. As evidenced by the following recent quote, there is still much work to be done in this arena: “there is still considerable ambiguity regarding the factors that impact the nature, course, and duration of the grief process” (Sprang & McNeil, 1995, p. 3). Extending this argument to the realm of pathological grief, Middleton et al. (1993) made the useful suggestion that future research “will likely adopt a multidimensional framework in conceptualizing what may appear to be similar consequences, or pathologies, but which derive from very different sources and develop along very different paths. By way of example, the association between personality structure and pathological grief may be one of the approaches” (p. 60).

In summary, the results of the present study revealed that a constellation of person factors are related to the grief experience following the death of a significant other. The factors are perhaps hierarchically arranged in the general case, and yet, in the specific

**case, the determination of which factors play more central roles in bereaved persons' adaptations to loss will always require a sensitivity to the breadth of identified internal (and external) determinants. Clearly, a broad conceptualization of grief reactions is warranted; one that takes into consideration a multitude of factors, including personality features and related enduring tendencies involving self in relation to others.**



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## APPENDIX A

## NEO PI-R Domain and (Neuroticism) Facet Scale Descriptions

**Neuroticism (N)** (vs. adjustment or emotional stability)

The general tendency to experience negative affects such as fear, sadness, embarrassment, anger, guilt, and disgust is the core of the N domain. N includes more than susceptibility to psychological distress. Perhaps because disruptive emotions interfere with adaptation, men and women high in N are also prone to have irrational ideas, to be less able to control their impulses, and to cope more poorly than others with stress. Persons who score low on N are emotionally stable. They are usually calm, even-tempered, and relaxed, and they are able to face stressful situations without becoming upset or rattled.

**Neuroticism Facet Scales:**

**N1: Anxiety** - Anxious individuals are apprehensive, fearful, prone to worry, nervous, tense, and jittery. The scale does not measure specific fears or phobias, but high scorers are more likely to have such fears, as well as free-floating anxiety. Low scorers are calm and relaxed. They do not dwell on things that might go wrong.

**N2: Angry Hostility** - Angry hostility represents the tendency to experience anger and related states such as frustration and bitterness. The scale measures the individual's readiness to *experience* anger; whether the anger is *expressed* depends upon the individual's level of Agreeableness. Note, however, that disagreeable people often score high on this scale. Low scorers are easygoing and slow to anger .

**N3: Depression** - This scale measures normal individual differences in the tendency to experience depressive affect. High scorers are prone to feelings of guilt, sadness, hopelessness, and loneliness. They are easily discouraged and often dejected. Low scorers rarely experience such emotions, but they are not necessarily cheerful and lighthearted - characteristics associated with Extraversion.

**N4: Self-Consciousness** - The emotions of shame and embarrassment form the core of this facet of N. Self-conscious individuals are uncomfortable around others, sensitive to ridicule, and prone to feelings of inferiority. Self-consciousness is akin to shyness and

social anxiety - to Fenigstein, Scheier, and Buss' (1975) public (but not private) self-consciousness. Low scorers do not necessarily have poise or good social skills; they are simply less disturbed by awkward social situations.

**N5: Impulsiveness** - In the NEO PI-R, impulsiveness refers to the inability to control cravings and urges. Desires (e.g., for food, cigarettes, possessions) are perceived as being so strong that the individual cannot resist them, although he or she may later regret the behavior. Low scorers find it easier to resist such temptations, having a high tolerance for frustration. The term impulsive is used by many theorists to refer to many different and unrelated traits. NEO PI-R impulsiveness should not be confused with spontaneity, risk-taking, or rapid decision time.

**N6: Vulnerability** - The final facet of N is vulnerability to stress. Individuals who score high on this scale feel unable to cope with stress, becoming dependent, hopeless, or panicked when facing emergency situations. Low scorers perceive themselves as capable of handling themselves in difficult situations.

### **Extraversion (E)** (a.k.a. Surgency)

Extraverts are, of course, sociable, but sociability is only one of the traits that comprise the domain of E. In addition to liking people and preferring large groups and gatherings, extraverts are also assertive, active, and talkative. They like excitement and stimulation and tend to be cheerful in disposition. They are upbeat, energetic, and optimistic. While it is easy to convey the characteristics of the extravert, the introvert is less easy to portray. In some respects, introversions should be seen as the absence of extraversion rather than what might be assumed to be its opposite. Thus, introverts are reserved rather than unfriendly, independent rather than followers, even-paced rather than sluggish. Introverts may say they are shy when they mean that they prefer to be alone: they do not necessarily suffer from social anxiety. Finally, although they are not given to the exuberant high spirits of extraverts, introverts are not unhappy or pessimistic.

**Openness (O)** (a.k.a. culture or intellect)

The elements of O include active imagination, aesthetic sensitivity, attentiveness to inner feelings, preference for variety, intellectual curiosity, and independence of judgment. Open individuals are curious about both inner and outer worlds, and their lives are experientially richer. They are willing to entertain novel ideas and unconventional values, and they experience both positive and negative emotions more keenly than do closed individuals. Persons who score low on O tend to be conventional in behavior and conservative in outlook. They prefer the familiar to the novel, and their emotional responses are somewhat muted.

**Agreeableness (A)** (vs. Antagonism)

Agreeableness is primarily a dimension of interpersonal tendencies. The agreeable person is fundamentally altruistic. He or she is sympathetic to others and eager to help them, and believes that others will be equally helpful in return. By contrast, the disagreeable or antagonistic person is egocentric, skeptical of others intentions, and competitive rather than cooperative.

**Conscientiousness (C)** (a.k.a. Will to achieve)

Self-control can refer to the active processes of planning, organizing, and carrying out tasks, and individual differences in this tendency are the basis of Conscientiousness. The conscientious individual is purposeful, strong-willed, and determined, and probably few people become great musicians or athletes without a reasonably high level of this trait. C is an aspect of what was once called character; high C scorers are scrupulous, punctual, and reliable. Low scorers are not necessarily lacking in moral principles, but they are less exacting in applying them, just as they are more lackadaisical in working toward their goals.

**Note.** These descriptors are closely adapted from descriptions given in the **Revised NEO Personality Inventory (NEO-PI-R)** and **NEO Five-Factor Inventory (NEO-FFI) Professional Manual** by P. T. Costa, Jr., and R. R. McCrae, 1992, Odessa, FL: Psychological Assessment Resources.

**APPENDIX B****PDQ-4+ Scale Descriptions****Paranoid**

Persons with this disorder tend to be suspicious, mistrustful, hypervigilant, and preoccupied with being exploited or betrayed by others. Hostility, irritability, avoidance, and anxiety may occur secondary to their paranoid beliefs.

**Schizoid**

Persons with this disorder are characterized by a profound defect in their ability to form personal relationships or to respond to others in an emotionally meaningful way. Such persons appear to be indifferent, aloof, detached, and unresponsive to praise, criticism, or any other feeling expressed by others. They often appear affectively bland, constricted, and apathetic.

**Schizotypal**

Persons with this disorder have characteristics which encompass a combination of odd or peculiar behavior, speech, thought, and perception. Such persons are usually withdrawn and display idiosyncratic speech patterns, eccentric beliefs, paranoid tendencies, unusual appearance, inappropriate affect, and social anxiety.

**Histrionic**

Persons with this disorder tend to be attention seeking, self-dramatizing, excessively gregarious, seductive, manipulative, exhibitionistic, shallow, labile, and demanding.

**Narcissistic**

Persons with this disorder are egocentric, grandiose, entitled, shallow, exploitative, arrogant, and preoccupied with fame, wealth, and achievement, and they generally lack empathy and consideration for the feelings of others. Such persons may be exquisitely hypersensitive to evaluation or criticism. Narcissistic persons crave admiring attention and praise and place excessive emphasis on displaying the accoutrements of beauty, power, fame, and wealth. They typically use relationships to meet their own selfish needs with little consideration for the needs of the other person and feel that they are entitled to special rights, attention, privileges, and consideration.

### **Borderline**

Borderline PD describes a behavioral pattern of intense and chaotic relationships with fluctuating and extreme attitudes toward others. In the extreme form, persons with this disorder engage in self-destructive behaviors, are affectively unstable and impulsive, and lack a clear sense of identity. Suicide attempts or self-mutilation may be a response to rejections or disappointments in interpersonal relationships. These persons often alternate between viewing themselves (and others) as all good (idealizing) or all bad (devaluing). Their personal lives tend to be chaotic, unstable, and marked by frequent disappointments and rejections. An underlying mood of chronic anger and depression is common. During times of crisis or rejection or under the influence of alcohol or substance abuse, these persons may experience transient psychotic breaks lasting from hours to days. They may also show poor control of emotions and impulses, which may result in aggressive behavior toward themselves and others.

### **Antisocial**

Antisocial PD describes a pattern of socially irresponsible, exploitative, and guiltless behavior. Such persons engage in the deception and manipulation of others for personal gain and fails to abide by the law, sustain consistent employment, and develop stable relationships.

### **Avoidant**

Avoidant PD is a pattern of inhibited, introverted, and anxious behavior, with low self-esteem, hypersensitivity to rejection, social awkwardness, timidity, social discomfort, and self-conscious fears of being embarrassed of acting foolishly.

### **Dependent**

Dependent PD describes a pattern of excessive reliance on others that is reflected in the person's tendency to permit others to make important decisions, to feel helpless when alone, to subjugate his or her own needs to those of others, to tolerate mistreatment, and fail to be appropriately self-assertive.

### **Obsessive-Compulsive**

Persons with OCPD tend to be perfectionistic, constricted, and excessively disciplined. Their behavior is rigid, formal, emotionally cool, distant, intellectualizing,



and detailed. Such persons may be driven, aggressive, competitive, and impatient, with a chronic sense of time pressure and an inability to relax. They have an excessive tendency to be in control of themselves, others, and life situations. They are often tormented with anxiety over matters of uncertainty and ambiguity. Because of their need for perfection, they often have difficulty making decisions and are prone to procrastinate or obsess. On the other hand, other types of obsessional persons have a hard-driving urge to do everything now and expect the same level of efficiency from others. An undercurrent of anger is often visible in their general demeanor, although open expression of anger (or any other emotion) is difficult for them.

#### Negativistic (a.k.a. Passive-Aggressive)

Passive-aggressive PD represent a pervasive pattern of negativistic attitudes and passive resistance to demands for adequate performance. Such persons passively resist fulfilling routine social and occupational tasks. They complain of being misunderstood and unappreciated by others and are often sullen and argumentative. Such persons unreasonably criticize and scorn authority. They express envy and resentment toward those apparently more fortunate than themselves, and voice exaggerated and persistent complaints of personal misfortune. Such persons also alternate between hostile defiance and contrition.

#### Depressive

Depressive PD describes a pervasive pattern of depressive cognitions and behaviors. Such persons have a usual mood that is dominated by dejection, gloominess, cheerlessness, joylessness, and unhappiness. Their self-concept centers around beliefs of inadequacy, worthlessness, and low self-esteem. They tend to be critical, blaming, and derogatory toward themselves, and tend to be negativistic, critical, and judgmental toward others. They brood frequently and are prone to worry, are pessimistic, and are prone toward feeling guilty or remorseful.

Note. These descriptors are closely adapted from descriptions presented in the DSM-IV Guidebook by A. Frances, M. B. First, and H. A. Pincus, 1995, Washington, DC: American Psychiatric Press, Inc.

## APPENDIX C

### Grief Experience Inventory (GEI) Scale Descriptions

#### Validity Scales:

**1. Denial** - This rationally derived scale correlates significantly ( $p < .001$ ) with the MMPI L scale (.41), but not with the MMPI K scale (.06). These correlations support the intent of this scale to tap a reticence to admit to common, but socially undesirable, feelings and weaknesses. Profiles with a T-score of 70 or greater on this scale are recommended for exclusion from group level analysis.

**2. Atypical Responses** - This empirically derived scale was modeled after the MMPI F scale. It correlates significantly ( $p < .001$ ) with the F scale (.40) and taps the tendency to endorse items which were infrequently endorsed (by less than 25%) in the GEI normative sample. T-scores of 70 or greater on this scale occurred in just 1 percent of the profiles of persons in the GEI "general reference" group ( $N = 135$ ), and as with the Denial scale, the recommendation in the GEI manual is to exclude such profiles before group level analyses are undertaken.

**3. Social Desirability** - The items from this empirically derived scale were derived on the basis of differential item endorsement between the general reference group and a group ( $N = 79$ ) asked to respond in a socially desirable manner to the GEI items. As such, it reflects a tendency to respond in a manner that conforms to societal expectations. It correlates significantly ( $p < .001$ ) with both the MMPI F (.37) and K (-.34) scales.

#### Bereavement Scales:

**1. Despair** - This scale taps "the most pervasive psychological expression of grief." Persons who score highly are inwardly focused, preoccupied, and dysphoric, with the emotions of anger, anxiety, depression, fear, and hopelessness being present. The high scorer also feels hurt, and perhaps even cheated or treated unfairly by fate.

**2. Anger/Hostility** - Indicates levels of anger, irritation, and feelings of injustice. High scorers are restless, agitated, and angry.

**3. Guilt** - Indicates feelings of being somehow to blame or otherwise responsible for the death.

**4. Social Isolation** - Samples behaviors characterized by withdrawal from social contacts and responsibilities, in part due to feelings of being isolated from others. High scorers are likely feeling like withdrawing and being alone, but there also exists an element of oversensitivity and fear of being hurt in interpersonal relationships.

**5. Loss of Control** - Indicates inability to control one's overt emotional experiences, with many of the items dealing with crying. Feelings of tension, anxiety, and stress may also be present in higher scorers.

**6. Rumination** - Indicates the degree of preoccupation and amount of time spent dealing in thoughts concerning the deceased. Elements of brooding (in terms of a combination of rumination and anger, a looking for someone to blame) are also thought to be tapped by this scale.

**7. Depersonalization** - Measures the aspects of numbness, shock, and confusion.

**8. Somatization** - Measures the extent of somatic problems that occur during bereavement.

**9. Death Anxiety** - Measures the intensity of one's own personal death awareness.

**Note.** These descriptors are closely adapted from **A manual for the Grief Experience Inventory** by C. M. Sanders, P. A. Mauer, and P.N. Strong, Jr., 1985, Palo Alto, CA: Consulting Psychologists Press.

## APPENDIX D

### Grief Experience Questionnaire (GEQ) Scale Descriptions

#### GEQ Scales:

**1. Abandonment/Rejection** - This dimension centers primarily around feelings of being abandoned, deserted, and/or rejected by the deceased. Although this is, in general, an uncommon reaction, it is most likely to be reported by survivors of suicide. Feelings that one was somewhat responsible for the death itself as well as anger toward the deceased are also captured by several of the items.

**2. Stigmatization** - This dimension refers to the experience of a perceived loss of social support or ties and felt stigmatization following the death. It bears upon the idea that the generally negative social perceptions of suicide result in more frequent and severe isolation and alienation for survivors of the suicide. This dimension also reflects the idea that suicide reflects negatively upon, and permanently marks (or stigmatizes), the survivor as different from others for whom the mode of death was not suicide.

**3. Search for Explanation** - This dimension essentially reflects a search for the reason(s) underlying, or for an understanding of, why the death occurred (i.e., answering variants of the question "why?"). This scale reflects the engagement of suicide survivors' in an especially difficult and enduring search for acceptable reasons as to why the person took his or her life.

**4. Guilt** - This dimension taps the experience of thoughts and feelings of guilt over one's own acts of commission and/or omission prior to the decedents death. A degree of self-reproach appears common after most deaths, although guilt after a completed suicide appears to have unique features.

**5. Somatic Reactions** - This dimension reflects somatic reactions common after a bereavement and measures the bereaved persons general perception of his or her physical condition during the bereavement experience.

**6. Responsibility** - This dimension reflects beliefs of some bereaved persons that they may have had some sort of personal responsibility for the occurrence of the death. After most deaths, bereaved persons seldom seriously believe that they could have somehow prevented the death. However, those bereaved through a suicidal death often feel as if they are in some way responsible for the fact that the person completed suicide, either in terms of directly contributing to the suicide or by somehow failing to stop it.

**7. Self-Destructive Orientation** - This dimension taps cognitions or behaviors indicative of a self-destructive orientation during the period following the death.

**8. Shame/Embarrassment** - This dimension taps into the feelings of shame and embarrassment that may arise regarding the cause, nature, or circumstances of the death. These reactions will be more likely in the case when the death is a suicide.

**Note.** These descriptors are adapted from T. W. Barrett and T. B. Scott (1989), Development of the Grief Experience Questionnaire, Suicide and Life-Threatening Behavior, 19, 201-215, and from S. E. Bailey, K. Dunham, and M. Kral, (1998) (manuscript submitted for publication). The eight scales described above were derived through factor analysis by Bailey, et al. (1998).

APPENDIX E

Author-Devised Questionnaire

Your current age: \_\_\_\_\_

Sex: \_\_\_\_\_

Race (check one): White \_\_\_ African American \_\_\_ Latin American \_\_\_ Asian \_\_\_ Other \_\_\_

Circle last year of formal education that you completed:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 or more

Current marital status: Single \_\_\_ Married \_\_\_ Separated \_\_\_ Divorced \_\_\_ Widowed \_\_\_

Currently living: With spouse \_\_\_ With partner \_\_\_ With family \_\_\_ Alone \_\_\_ Other \_\_\_

Current employment (check all that apply):

Full time \_\_\_ Part time \_\_\_ Homemaker \_\_\_ Unemployed \_\_\_ Retired \_\_\_ Student \_\_\_

The person who died was my (check only one):

Father \_\_\_ Mother \_\_\_ Brother \_\_\_ Sister \_\_\_ Husband \_\_\_ Wife \_\_\_ Son \_\_\_  
 Daughter \_\_\_ Friend \_\_\_ Grandparent \_\_\_ Uncle \_\_\_ Aunt \_\_\_ Other (who) \_\_\_\_\_

Looking back, I would guess that my relationship with this person was (check only one):

- \_\_\_ Closer than any relationship I've had before or since.
- \_\_\_ Closer than most relationships I've had with other people.
- \_\_\_ About as close as most relationships with others.
- \_\_\_ Not as close as most relationships.
- \_\_\_ Not very close at all.

How old was this person when they died? \_\_\_\_\_

This person's death was (check all that apply): Expected \_\_\_ Unexpected \_\_\_ Slow \_\_\_ Sudden \_\_\_

1. When did the death occur? (month/day/year) \_\_\_\_\_ (Today's date \_\_\_\_\_)

2. How old were you when the death occurred? \_\_\_\_\_

3. The deceased was (please check) male \_\_\_ female \_\_\_

4. For how long had you known the deceased (years/months)? \_\_\_\_\_

5. Were you living with the person at the time of his/her death? yes \_\_\_ no \_\_\_

If not, for how long has it been since you had lived with the person? \_\_\_\_\_

6. On the following scale, please rate your degree of *emotional* closeness to the deceased by circling the appropriate number (for example, 0 would mean no emotional closeness, 5 would mean a medium amount of closeness, etc.).

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0 1 2 3 4 5 6 7 8 9 10  
 not close at all closest you have ever been to anybody



15. Did you:

- Find the body? yes \_\_\_\_ no \_\_\_\_
- See the death occur? yes \_\_\_\_ no \_\_\_\_
- Try to rescue the person? yes \_\_\_\_ no \_\_\_\_

16. If the death was caused by accident, was the person alone at the time? yes \_\_\_\_ no \_\_\_\_

17. If the death was due to short or long-term illness, for how long (months or years) was the person ill?

18. At the funeral, was the casket open \_\_\_\_ or closed \_\_\_\_?

19. Since the death, has there been a change in your financial situation? yes \_\_\_\_ no \_\_\_\_

If yes, in what direction? \_\_\_\_\_

How stressful an aspect has this been for you?

---

0	1	2	3	4	5	6	7	8	9	10
not at all										very
stressful										stressful

20. Did *you* have any advance warning of the death? yes \_\_\_\_ no \_\_\_\_

If yes, please explain the nature of the advance warning. \_\_\_\_\_

\_\_\_\_\_

21. Did you anticipate that the person would die when they did? yes \_\_\_\_ no \_\_\_\_

If yes, please elaborate. \_\_\_\_\_

\_\_\_\_\_

22. Do you blame any of the following for the death? (check all that apply)

- a) \_\_\_\_ the deceased
- b) \_\_\_\_ yourself
- c) \_\_\_\_ other family member
- d) \_\_\_\_ a stranger
- e) \_\_\_\_ other (please specify) \_\_\_\_\_

23. Do you think that the death was preventable? yes \_\_\_\_ no \_\_\_\_

If yes, please explain how you believe the death to have been preventable. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

24. To what degree do you feel that *you* could have done something to prevent the death?

---

0	1	2	3	4	5	6	7	8	9	10
not at all										very much

25. Have you felt the need to continually explain the *cause* of death to others? yes \_\_\_\_ no \_\_\_\_

If yes, please elaborate. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



26. Do you believe that others can understand your grief? yes \_\_\_\_ no \_\_\_\_

27. Do you feel any sense of relief that the person has died? yes \_\_\_\_ no \_\_\_\_

If yes, please describe the nature of your feelings of relief. \_\_\_\_\_

28. Do you believe that the deceased is: at peace \_\_\_\_, suffering \_\_\_\_, don't know, but wish you did \_\_\_\_.

29. When you dream about the deceased, are your dreams mostly positive \_\_\_\_, negative \_\_\_\_, or neutral \_\_\_\_  
(I don't dream about the deceased \_\_\_\_)

30. Have you had any of the following "mystical" experiences? (please check all that apply)

An unexplainable event related to the deceased? \_\_\_\_

A feeling that the person is present? \_\_\_\_

A sign or message from the deceased? \_\_\_\_

Were these comforting \_\_\_\_, or disturbing \_\_\_\_?

31. How important have spiritual beliefs been for you in coping with this loss?

0	1	2	3	4	5	6	7	8	9	10
not at all										extremely
important										important

32. To what extent do you feel that you have "accepted" the death?

0	1	2	3	4	5	6	7	8	9	10
have not										completely
accepted it										accepted
it at all										

33. To what extent do you feel that you have "recovered" from your grief?

0	1	2	3	4	5	6	7	8	9	10
have not										completely
recovered										recovered
at all										

34. How attached, or close, do you still feel to the deceased, regardless of how long it has been since the death occurred?

0	1	2	3	4	5	6	7	8	9	10
not close										extremely
at all										close

35. My memories of the deceased are: mostly positive \_\_\_\_, mostly negative \_\_\_\_, other \_\_\_\_\_

36. In total (over your lifetime), how many people *that you have been close to* have died? \_\_\_\_

(including the person for whom you are filling out these questions).

Some people join bereavement support groups and others do not. These next few questions are designed to determine if professional help makes a difference in the grieving process.

37. Since the death, have you at any time thought about joining a bereavement support group to help you to deal with the death?

yes \_\_\_\_\_  
no \_\_\_\_\_

38. Since the death, have you gone to at least one bereavement support group meeting?

yes \_\_\_\_\_ (how many meetings did you attend?) \_\_\_\_\_  
no \_\_\_\_\_

39. Have you spoken to any professional (e.g., therapist, counselor) to try to sort out your feelings regarding the death?

yes \_\_\_\_\_  
no \_\_\_\_\_

If yes, what type of professional did you speak to? \_\_\_\_\_ How many times? \_\_\_\_\_  
(e.g., psychologist, clergy, etc.)

40. Do you have at least one person (non-professional) with whom you have been able to talk to about your feelings regarding the death? yes \_\_\_\_\_ no \_\_\_\_\_

Often, grief reactions related to suicide are complex in different ways. To help us understand this process better, *questions 41-44 refer only to those who have lost someone to suicide*. Otherwise, please go to the next page.

41. What method did the person use?

- a) \_\_\_\_\_ firearms
- b) \_\_\_\_\_ hanging
- c) \_\_\_\_\_ ingesting drugs/poisons
- d) \_\_\_\_\_ carbon monoxide poisoning
- e) \_\_\_\_\_ other (please describe) \_\_\_\_\_

42. Did the person ever make a previous attempt?

yes \_\_\_\_\_  
no \_\_\_\_\_

If yes, how many? \_\_\_\_\_

43. Was a note left this time?

yes \_\_\_\_\_  
no \_\_\_\_\_

If yes, did you read it or otherwise learn of its contents?

yes \_\_\_\_\_  
no \_\_\_\_\_

Do you believe that the person blamed you for the death in the suicide note?

yes \_\_\_\_\_  
no \_\_\_\_\_

44. What motive(s) do you believe that the person had for taking his/her life? \_\_\_\_\_

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**One Last Request!**

As mentioned earlier in the Statement of Consent, a number of the questions that were asked of you were about very sensitive issues concerning very private information. The only way to find out more about these issues, however, is to ask about them. In order for us to make this study as sensitive as possible, we would like to know how you felt about answering these questions. Please respond to the few items below.

1. Has responding to the questions in this study made you upset in any way?

Yes \_\_\_\_\_

No \_\_\_\_\_

2. Do you have any regrets about participating in this study?

Yes \_\_\_\_\_

No \_\_\_\_\_

Comments regarding anything about this study or your participation in it?

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Thank you for completing this questionnaire. We sincerely appreciate your participation and believe that the information you have provided will help us to better understand the feelings and challenges that face those, like yourself, who have been recently bereaved. By sharing your experience, you have advanced the knowledge available to us - knowledge that will aid in helping others who lose loved ones.

## APPENDIX F

Master List of All Variables Assessed, the Nature of Each Variable (IV, DV, Demographic; Categorical or Continuous Data) and Questionnaire Derived From

Variable	Nature of variable					Quest.
	IV	DV	Dem.	Cat.	Cont.	
NEO FFI Neuroticism domain scale	*				*	NEO
N1: Anxiety facet scale	*				*	NEO
N2: Angry Hostility facet scale	*				*	NEO
N3: Depression facet scale	*				*	NEO
N4: Self-Consciousness facet scale	*				*	NEO
N5: Impulsiveness facet scale	*				*	NEO
N6: Vulnerability facet scale	*				*	NEO
NEO FFI Extraversion domain scale	*				*	NEO
NEO FFI Openness domain scale	*				*	NEO
NEO FFI Agreeableness domain scale	*				*	NEO
NEO FFI Conscientiousness domain scale	*				*	NEO
PDQ: Schizoid scale	*				*	PDQ
PDQ: Schizotypal scale	*				*	PDQ
PDQ: Paranoid scale	*				*	PDQ
PDQ: Borderline scale	*				*	PDQ
PDQ: Narcissistic scale	*				*	PDQ
PDQ: Histrionic scale	*				*	PDQ
PDQ: Antisocial scale	*				*	PDQ
PDQ: Avoidant scale	*				*	PDQ
PDQ: Dependent scale	*				*	PDQ
PDQ: Obsessive-Compulsive scale	*				*	PDQ
PDQ: Negativistic scale	*				*	PDQ
PDQ: Depressive scale	*				*	PDQ
PDQ: Too Good validity scale					*	PDQ
PDQ: Suspect Questionnaire validity scale					*	PDQ
GEI: Despair scale		*			*	GEI
GEI: Anger/Hostility scale		*			*	GEI
GEI: Guilt scale		*			*	GEI
GEI: Social Isolation scale		*			*	GEI
GEI: Loss of Control scale		*			*	GEI
GEI: Rumination scale		*			*	GEI
GEI: Depersonalization scale		*			*	GEI
GEI: Somatization scale		*			*	GEI
GEI: Death Anxiety scale		*			*	GEI
GEQ: Abandonment/Rejection scale		*			*	GEQ
GEQ: Stigmatization scale		*			*	GEQ

(table continues)

Variable	Nature of variable					Quest.
	IV	DV	Dem.	Cat.	Cont.	
GEQ: Search for Explanation scale		*			*	GEQ
GEQ: Guilt scale		*			*	GEQ
GEQ: Somatic Reactions scale		*			*	GEQ
GEQ: Responsibility scale		*			*	GEQ
GEQ: Self-Destructive Orientation scale		*			*	GEQ
GEQ: Shame/Embarrassment scale		*			*	GEQ
GEQ: "Total" grief		*			*	GEQ
current age of respondent	*		*		*	OURS
sex of respondent	*		*	dichot		OURS
race of respondent	*		*	discrete		OURS
respondent years of formal schooling completed	*		*		*	OURS
current marital status			*	discrete		OURS
current living arrangements			*	discrete		OURS
current employment status			*	discrete		OURS
respondents kinship to deceased	*		*	discrete		OURS
closeness to deceased	*				*	OURS
age of deceased	*		*		*	OURS
death - expected	*			dichot		OURS
death - unexpected	*			dichot		OURS
death - slow	*			dichot		OURS
death - sudden	*			dichot		OURS
elapsed time since death	*				*	OURS
age of respondent at time of death	*		*		*	OURS
sex of deceased	*		*	dichot		OURS
length of relationship with the deceased	*				*	OURS
living with deceased at time of death?				dichot		OURS
if not, how long since last lived with person?					*	OURS
emotional closeness to deceased	*				*	OURS
quality of relationship with deceased	*				*	OURS
state of emotional well-being before death	*				*	OURS
present state of "emotional well-being"		*			*	OURS
evaluation of the "significance" of the death	*				*	OURS
mode/cause of death	*			discrete		OURS
where did the death occur				discrete		OURS
place of death still bring strong memories?				dichot		OURS
place of death memories positive/negative				dichot		OURS
elaboration of details surrounding the death				qual		OURS
how did respondent find out about the death				qual		OURS
did respondent find the body				dichot		OURS
did respondent see the death occur				dichot		OURS
did respondent try to rescue the person				dichot		OURS
if accident, deceased alone at time of death?				dichot		OURS
length of illness (natural deaths)	*				*	OURS

(table continues)

Variable	Nature of variable				Cont.	Quest.
	IV	DV	Dem.	Cat.		
open or closed casket				dichot		OURS
change in financial situation since the death	*			dichot		OURS
if yes, in what direction				qual		OURS
how stressful has this change been					*	OURS
advance warning of the death	*			dichot		OURS
if yes, explain nature of advance warning				qual		OURS
anticipation that death would occur when it did	*			dichot		OURS
if yes, elaboration on "anticipation"				qual		OURS
any persons blamed by resp. for the death				discrete		OURS
death viewed as preventable	*			dichot		OURS
if yes, elaboration on "preventability"				qual		OURS
participant feeling that they personally could have done something to prevent the death	*				*	OURS
need to explain the cause of death to others?				dichot		OURS
if yes, elaboration on "need to explain"				qual		OURS
belief that others can understand their grief				dichot		OURS
sense of relief?		*		dichot		OURS
if yes, elaboration on "feelings of relief"				qual		OURS
is deceased at peace/suffering/don't know				discrete		OURS
type of dreams about the deceased				discrete		OURS
mystical - unexplainable event...				dichot		OURS
mystical - feeling that person is present				dichot		OURS
mystical - sign or message from deceased				dichot		OURS
"mystical" experiences comforting/disturbing				dichot		OURS
importance of spiritual beliefs	*				*	OURS
acceptance of death (degree of)		*			*	OURS
recovery from grief (degree of)		*			*	OURS
current degree of attachment/closeness					*	OURS
memories of deceased				discrete		OURS
total number of bereavement experiences	*				*	OURS
thoughts about attending BSG				dichot		OURS
attending BSG meeting(s)	*			dichot		OURS
if yes, how many meetings attended					*	OURS
obtaining professional help	*			dichot		OURS
type of professional				discrete /qual		OURS
how many times					*	OURS
other person to speak about feelings with?				dichot		OURS
For suicides only:						
method used				discrete		OURS
previous attempt?				dichot		OURS
if yes, how many					*	OURS

(table continues)

Variable	Nature of variable					Quest.
	IV	DV	Dem.	Cat.	Cont.	
was a note left?				dichot		OURS
if yes, did resp. learn of its contents				dichot		OURS
if yes, did resp. feel blamed by deceased				dichot		OURS
motive(s) of deceased				qual		OURS
respondent upset by participation				dichot		OURS
respondent regrets their participation				dichot		OURS

**Note.** IV = independent variable. DV = dependent variable. Dem. = demographic variable. Cat. = categorical variable. Cont. = continuous variable. Quest. = questionnaire. qual = qualitative variable. dichot = dichotomous variable.

## APPENDIX G

### Consent Form

I \_\_\_\_\_ (please print your name), hereby understand and consent to the following.

This research project is being conducted by Steven Bailey, a graduate student in the Department of Psychology at the University of Windsor, and is being supervised by Dr. Michael Kral, on faculty at the University of Windsor.

This project is designed to investigate (a) the nature of grief as it is experienced by individuals who have recently lost a significant person in their life, and (b) some of the factors that influence grief. In order for this information to be collected, I will complete a questionnaire package. The questionnaires will ask personal questions of me about the death of the person, as well as about some of the reactions and feelings that I have had in response to this death. Part of the questionnaire will ask me about the typical ways that I function on a day to day basis. The purpose of these questions is to enable us to learn about how the loss of a significant other affects those who have been bereaved. Previous research has shown that some people find the process of participating in grief research to be helpful, although I am aware that I may experience sadness and discomfort during the process of completing the questionnaire. I understand that this is not intended to be a therapeutic experience.

It should take about 60 - 90 minutes to complete all the questions, and I will receive two bonus points to be applied toward my final course grade as compensation for my participation in this study.

I am aware that my participation is completely voluntary, and that I have the right to withdraw from participation at any time without explanation or penalty. I may refrain from answering questions that I do not wish to answer. I may ask questions at any time during my participation, and Steven Bailey, the principal investigator, will be available after I am finished for any further questions, comments, or discussion. Confidentiality regarding my responses will be protected by the fact that my name will not appear anywhere on the questionnaire (which will be stored in a locked secure location). The data obtained through my participation may, in the future, be used for publication purposes. If you are interested in obtaining a summary of the results after the completion of the study (late 1998), please write to Steven Bailey (University of Windsor, Department of Psychology, 401 Sunset Avenue, Windsor, Ontario, Canada, N9B 3P4).

This procedure and consent form have been reviewed and cleared by the University of Windsor's Department of Psychology Ethics Committee. Concerns may be directed to the Psychology Department Ethics Committee Chair, Dr. S. Voelker (519 253-4232, ext. 2249), or to the Office of Research Services, University of Windsor (519 253-4232 ext. 3916). For more information, I may contact the principal investigator, Steven Bailey, or Dr. Kral at the Department of Psychology (519 253-4232 ext. 2225).

I have received a copy of this form for my own records. My signature below indicates my consent to participate in this study.

\_\_\_\_\_  
your signature

\_\_\_\_\_  
today's date



## APPENDIX H

Model 1: Summary of Significant Variables in Multiple Regression Predicting  
 "Internalized Distress" from Normal-Range Personality Traits ( $n = 163$ )

Variables	$r$	Partial $r$	$B$	$\beta$	$T$	$sr^2 (\Delta R^2)$
Neuroticism	.41***	.38	.03	.34	5.2	.17***
Closeness	.36***	.27	.26	.24	3.5	.10***
Professional help	-.32***	-.22	-.53	-.19	-2.8	.04**
Others understand grief	.30***	.21	.45	.18	2.7	.03**
						$R = .58***$
						$R^2 = .34$
						Adjusted $R^2 = .32$

**Note.** Correlations ( $r$ ) are zero-order correlations. Partial correlation (Partial  $r$ ) is the correlation of each IV with the DV (grief component I) after removing the linear effect of variables already in the equation. The full-model adjusted  $R^2 = .32$ ,  $F(4, 158) = 20.4$ ,  $p < .0005$ .

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

## APPENDIX I

Model 3: Summary of Significant Variables in Multiple Regression Predicting  
 "Internalized Distress" from Personality Styles ( $n = 161$ )

Variables	$r$	Partial $r$	$B$	$\beta$	$T$	$sr^2 (\Delta R^2)$
Borderline <sup>a</sup>	.42***	.32	.66	.29	4.2	.18***
Closeness	.36***	.27	.26	.23	3.5	.10***
Schizoid <sup>a</sup>	.34***	.25	.55	.21	3.2	.04**
Others understand grief	.32***	.22	.46	.19	2.8	.04**
Professional help	-.29***	-.16	-.38	-.14	-2.1	.02*

$R = .61***$   
 $R^2 = .37$   
 Adjusted  $R^2 = .35$

**Note.** Correlations ( $r$ ) are zero-order correlations. Partial correlation (Partial  $r$ ) is the correlation of each IV with the DV (grief component I) after removing the linear effect of variables already in the equation. The full-model adjusted  $R^2 = .35$ ,  $F(5,155) = 18.54$ ,  $p < .0005$ .

<sup>a</sup>square root transformation. <sup>b</sup>log transformation.

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

## APPENDIX J

Model 4: Summary of Significant Variables in Multiple Regression Predicting  
 "Stigmatized Grief" Normal-Range Personality Traits ( $n = 163$ )

Variables	$r$	Partial $r$	$B$	$\beta$	$T$	$sr^2 (\Delta R^2)$
prevented death <sup>a</sup>	.44***	.44	0.2	.45	6.5	.20***
Agreeableness	-.20**	-.21	-0.1	-.18	2.6	.03**

$R = .48***$   
 $R^2 = .23$   
 Adjusted  $R^2 = .22$

Note. Correlations ( $r$ ) are zero-order correlations. Partial correlation (Partial  $r$ ) is the correlation of each IV with the DV (grief component II) after removing the linear effect of variables already in the equation. The full-model adjusted  $R^2 = .22$ ,  $F(2, 159) = 24.25$ ,  $p < .0005$ .

<sup>a</sup>log transformation.

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

## APPENDIX K

Model 5: Summary of Significant Variables in Multiple Regression Predicting  
 "Stigmatized Grief" from Personality Styles ( $n = 161$ )

Variables	$r$	Partial $r$	$B$	$\beta$	$T$	$sr^2(\Delta R^2)$
prevented death <sup>b</sup>	.45	.48	.16	.47	6.6	.20***
Narcissistic	.22**	.28	.13	.23	3.7	.06***
Avoidant	.22**	.15	.08	.15	2.2	.02*
						$R = .54***$
						$R^2 = .29$
						Adjusted $R^2 = .27$

**Note.** Correlations ( $r$ ) are zero-order correlations. Partial correlation (Partial  $r$ ) is the correlation of each IV with the DV (grief component II) after removing the linear effect of variables already in the equation. The full-model adjusted  $R^2 = .29$ ,  $F(3, 157) = 20.9$ ,  $p < .0005$ .

<sup>a</sup>square root transformation. <sup>b</sup>log transformation.

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

## APPENDIX L

**Model 6: Summary of Significant Variables in Multiple Regression Predicting  
"Existential Anxiety" from Normal-Range Personality Traits ( $n = 163$ )**

Variables	$r$	Partial $r$	$B$	$\beta$	$T$	$sr^2 (\Delta R^2)$
impactfulness of death <sup>a</sup>	.51	.43	.89	.41	6.0	.26***
sex of respondent	.43	.31	.61	.29	4.2	.07***
						$R = .57***$
						$R^2 = .33$
						Adjusted $R^2 = .32$

**Note.** Correlations ( $r$ ) are zero-order correlations. Partial correlation (Partial  $r$ ) is the correlation of each IV with the DV (grief component III) after removing the linear effect of variables already in the equation. The full-model adjusted  $R^2 = .32$ ,  $F(2, 160) = 39.3$ ,  $p < .0005$ .

<sup>a</sup>reflect and square root transformation (correlations for these reflected variables are to be read as presented above).

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

## APPENDIX M

Model 7: Summary of Significant Variables in Multiple Regression Predicting  
 "Existential Anxiety" from Personality Styles (n = 162)

Variables	r	Partial r	B	$\beta$	T	sr <sup>2</sup> ( $\Delta R^2$ )
impactfulness of death <sup>c</sup>	.51	.42	.85	.39	-5.9	.26***
sex of respondent	.42	.31	.58	.27	4.0	.07***
Borderline <sup>a</sup>	.19**	.22	.44	.19	2.9	.02*
Schizoid <sup>a</sup>	-.14	-.20	-.44	-.17	-2.6	.03*
						<b>R</b> = .61***
						<b>R</b> <sup>2</sup> = .38
						Adjusted <b>R</b> <sup>2</sup> = .36

**Note.** Correlations (r) are zero-order correlations. Partial correlation (Partial r) is the correlation of each IV with the DV (grief component III) after removing the linear effect of variables already in the equation. The full-model adjusted  $R^2 = .38$ ,  $F(4, 157) = 23.5$ ,  $p < .0005$ .

<sup>a</sup>square root transformation. <sup>b</sup>log transformation. <sup>c</sup>reflect and square root transformation (correlations for these reflected variables are to be read as presented above).

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

**VITA AUCTORIS**

**Steven Bailey was born in Winnipeg, Manitoba, on November 9, 1967. In June of 1985, he graduated from River East Collegiate in Winnipeg. He then enrolled at the University of Manitoba, where he graduated with a Bachelor of Arts (Honours in Psychology) in May of 1992. From there he went on to the University of Windsor where he earned his Master of Arts in Psychology in 1994, and then his Ph.D. in Clinical Psychology in 1999.**